Accounting For Performance: Case Studies of Relative Performance Evaluation in Egypt and England

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Dedication

To My Family,

for their continuous support

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Abstract

Relative Performance Evaluation "RPE" is a performance evaluation and reward scheme which have been receiving a growing attention from academic and professionals (Holmstrom 1982, Frederickson 1992, Conyon and Gregg 1994, and Defond & Park 1999). Under RPE rewards for managers and executives are set upon their performance compared to that of their peers. Holmstrom (1982) introduced the basic model of RPE founded on agent-principal assumptions. In that model, the peers' performance was seen to provide information about the agent's unobservable effort. Fredrickson (1992) suggested that RPE could satisfy economic and psychological needs of employee. In this study, an attempt is made to depart from the universal agency perspective and to adopt a contingent framework. The research arguments were developed from an identification of the discrepancies and gaps in the literature of RPE, overlooked complications and issues in the UK practice, relating the debate about RPE to the wider accounting literature of performance measurements and evaluation (Emmanuel et.al. 1990, Kaplan & Atkinson 1998). The aim of this research was to explore the content and context of RPE therefore, the arguments focused on: whether RPE is motivating, the impacts of difficulty of peer group, non financial measures, market measures and varying the form of the rewards on RPE.

Case study approach was adopted to examine the research arguments. Data were collected from three companies in Egypt and one company in England. Access was partially accidental but turned to provide four different cases. Three cases were developed in Egypt including: Trade (a public company), Dairy (private company) and Steel (joint venture) and the English company was United Utilities (private company). Data were collected by questionnaire, interviews and other documentary sources of the companies.

The research findings suggest associations between RPE and target's difficulty, using non financial but not varying rewards. Competition and type of ownership and the organisational culture were influential on RPE.

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Introduction

Research Background

This study about Relative Performance Evaluation "RPE" started from agency theory. Recently there has been a growing literature about this technique (Holmstrom 1982, Kunckel and Magee 1986, Dye 1992, Frederickson 1992, Conyon and Gregg 1994, Dopuch and Gupta 1997 and DeFond & Park (1999). RPE is a mode of benchmarking which refers to building rewards for managers and executives on comparative performance (Dye 1992, Janakirman et. al., 1992, DeFond & Park 1999). In his basic model of RPE, Holmstrom (1982) focused on the incremental value of information that peers' performance would hold in inducing an agent's effort. Fredrickson (1992) suggested that RPE could satisfy economic and psychological needs of the employee. Academics [e.g. Kaplan 1984 (a)] criticised performance management practices for neglecting the psychological aspects of the performance measures and evaluation processes. They also suggest that management accounting should broaden its scope and type of consideration regarding performance management. Those authors, who write about RPE, make different assumptions about the technique, and its relationship to improvements in performance. In these studies, remuneration packages have been analysed via different variables and using different theoretical perspectives. These perspectives were drawn from economic, industrial relations, social theories and management (Holmstrom 1982, Green and Stocky 1983, Gibbons and Murphy 1990, Janakirman et. al 1992, Lambert et. al. 1993, Fredrickson 1992, Shore et. al 1987, Ferris and Mitchell 1987, Young 1985). This diverse set of researches and writings offer a range of theoretical and empirical studies which open a debate and raise important issues regarding performance systems such as RPE.

The importance of this research rests on academic and practical reasons. Academically, RPE has been capturing the attention of researchers over the past twenty years (Holmstrom 1982, Kunckel and Magee 1986, Maher 1987, Chow and Haddad 1991, Gibbons and Murphy 1990, Dye 1992, Frederickson 1992, Janakirman et. al 1992, Lambert et. al 1993, Conyon and Gregg 1994, Dopuch and Gupta 1997 and DeFond & Park 1999). Fredrickson's experimental study (1992) was awarded the American Accounting Association's award for the best article in 1992. This attention has called for more research to enrich our understanding of RPE, its mechanism and role in organisations. Particularly, questions arisen about: how can accounting contribute to the complex process of measuring, evaluating and rewarding performance? The complexity stems from the fact that many variables affect this process. Some of these variables refer to the measurement system itself (i.e. the attributes of the measurements, scope, representativeness ...etc) some belong to the organisation (e.g. its strategy, leadership, type of activities...etc) others relate to the environment (competition, market influences...etc) and the individuals' attributes (e.g. motivation, values, attitudes ...etc).

The discussion in the literature regarding RPE, has been primarily based on agency theory and included assumptions: (a) RPE is a universal technique; therefore it was noted that no attempt had been made to question what design would allow RPE to function effectively, for whom or in what circumstances. (b) The existing literature has also accepted –unquestioningly- the assumption that RPE would motivate employees and hence leads to improvements in performance. Also it was accepted that RPE and motivating employees constitute a linear, increasing function and the literature endeavors to examine - using different measures, samples and methods- whether or not this shape exists (see chapter two and three).

Professionally, independent committees such as the Cadbury Code of Best Practice (1992), the Greenbury Committee (1995) and institutions like London Securities Exchange, encouraged companies to develop and adopt remuneration packages, which builds rewards on comparative performance (which is the core of RPE). These professional bodies also urged companies to disclose the amounts and bases for such rewards in the company's reports. It should be mentioned that, since the Greenbury report, there have been an increasing number of UK companies which apply this technique among which are: National Westminster Bank, Reuters, Dixons, Lucas, Boots and others (see chapter four). A fact that should not be neglected in this research is that; reward under RPE scheme is only one item in the remuneration package in practice and in theory. This distinguishes the arguments about RPE from any debate about basic salary or any other items in the pay package. However, in order to clarify the importance of this scheme in terms of costs to companies, in 1998, Reuters paid £1.7 m to five executives under the long-term incentives (RPE scheme), whereas Lucas paid £1.3m to four executives and Dixons paid £1.2m. Given that this is an expense item, any unjustifiable increase in it would have a negative impact on product prices (which affect customers), profits (which affect the dividends to shareholders) and taxes as well.

In this research, RPE was examined as a control system with a special emphasis on investigating the motivational role proposed by Fredrickson (1992) and the social comparisons' theorists (Ferris and Mitchell 1987) but a different set of arguments were raised. In this research the concern was to examine the proposed motivational function of RPE. That is, how employees perceive RPE, whether or not they would be motivated by RPE, if they were, by which design (i.e. which comparison group, performance measures, rewards) and in what circumstances.

Otley (1984) argues that three questions should be asked about any control system: what standards of performance should be set, what dimensions of performance should be measured and how performance should be rewarded. The accounting literature contains a huge and ongoing stream of research about these three themes. However, this research differs from the work of Otley (1980), Brownell (1982), Brownell et. al. 1986 and 1991) in that it does not depend on statistical analysis of data for two reasons: (1) In this research the type of questions are exploratory. (2) It is aimed to obtain an in-depth picture about the technique, its application and outcomes. (3) The evidence in this research will not be generated using statistical analyses because they were criticised for being constrained by sample techniques, the choice of measures, producing weak correlation with no link to reality.

Thus, the line of enquiry adopted in this research has deliberately shifted the debate about RPE from economic perspective -represented in agency theory- to accounting perspective. This shift took the debate inside the organisation and this leads to developing arguments which have not been raised in agency perspective.

Motives behind the study

The motives behind conducting this study stem from the need to understand the contribution of RPE into the complex process of performance. It was apparent that there was a growing literature on different uses of benchmarking. As Dopuch and Gupta (1997) state, benchmarking has been suggested for use in a variety of areas: strategic planning, finance, investigating competitiveness, productivity, cost and quality and performance.

Some of the benchmarking literature studies have been oriented towards investigating performance and rewards through techniques such as RPE. However, a number of gaps and contradictions in the research on RPE have been identified (chapter three). Covering some of the gaps in the literature of RPE was the prime reason for this study (chapter four). The second motive is to analyse RPE as a control system as it implies the three components of a/the control as described by Otley (1987): setting targets, measuring, evaluating and rewarding performance. This involves linking the debate about RPE as a control system to the existing accounting literature about control system.

A third motive was to respond to the call of academic bodies "The Academy of Management" when it called (in 1996) for using in depth, "unconventional' and cross-culture investigation in the area of pay and firm's performance. A fifth motive was to elucidate the research issues in the environment of the Egyptian companies, which is rarely presented to the international academic circles. Exploring Egyptian practices along with UK practices is expected to show economic and cultural differences, which would enhance the investigation.

The research Method

In this research, case study approach (chapter five) was adopted to examine the research arguments. Data were collected from three companies in Egypt and one company in England. Access was partially accidental but turned to provide four different cases. Three cases were developed in Egypt including trade (a public company), Dairy (private company) and Steel (joint venture) and the English company was United Utilities (private company). This variety allowed to draw a picture about the broad aspects of control systems and performance management in these companies, then focused more on the specific practice of RPE, how used, why, what experience, rationale, what factors affect.

The data collection tools included 98 questionnaire and 16 semi- structured interviews (data presented and analysed in chapter six). The basic idea behind the integration of the two instruments was that, the limitation of one instrument would be compensated for by the strength of the other (Berry et. al. 1991). The field study was undertaken in two parts. Part one; collecting data from Egyptian companies where three firms were investigated (chapter six). Part two; collecting data from UK companies where a multi-utility group was investigated (chapter seven). The data collection was planned to start with the Egyptian part so that the researcher could gain some experience/ familiarity with the research in the environment to which she belongs. Furthermore, it helped to test and hence improve the questionnaire and the interviews before conducting the second part of the field work in a certainly more complex environment where the UK company that would be investigated is an international group of multi utilities (made up of four companies).

Organisation of this study

This thesis is organised into three parts. Following this introduction, part I provides an overview of the literature related to the theory and practice of performance management. The aim here is to develop a theoretical framework within which the relationship between performance measurements system and employees' motivation can be analysed. This framework has been structured on insights from three themes: the accounting literature of performance, the RPE literature and the UK practice of RPE. Thus, chapter one traces and reviews main and diverse accounting streams in handling the performance phenomenon from different perspectives and in different aspects: planning, measuring, evaluating and rewarding performance. Chapter two includes a review and summary of the particular evaluation and rewarding technique which is one concern in this research: RPE. Chapter three progresses towards developing the research arguments by a critical evaluation of the RPE literature. This includes both the theoretical and empirical implications of these researches.

Part II is designed to focus on the research problems. Chapter four concentrates on the research arguments, depending not only on the critical review of the RPE literature provided in chapter three, but also on analysing some studies, reports and publications about the current practices of RPE. Chapter five includes the research design and methodology.

Part III is devoted to the fieldwork and the case studies in Egypt and England. This part is divided into three chapters, chapters six and seven about the Egyptian data and chapter eight about the English data. Chapter six presents and comments on the data collected by the questionnaire, interviews and documentary sources for the individual companies in Egypt. Chapter seven includes a presentation of all the questionnaire data of the three Egyptian companies all together, a comparison between these data in terms of sectors (the public companies and private companies) and in terms of attitudes towards RPE. Chapter eight reports and analyses the data of United Utilities company from England. Chapter nine includes the major findings, reasons behind using/ not using RPE in the different companies, how implemented, what variables affect it and how employees interpret it. This discussion is conducted in the light of each company's circumstances, other control practices, employees' attitudes and cultural implications. Chapter ten summaries the findings, contribution, limitations and indicates some areas and extensions for future work.

The major findings of this research show that shifting the focus from the economic to the accounting domain provided many insights into RPE. Primarily, RPE is the least used and favoured among the evaluation techniques and mainly, it is not as the previous literature of RPE assumed: if RPE is used, then performance will improve due to motivating employees by money and esteem. Instead, the findings suggest that variables like the perceived difficulty of the peer group and using both financial and non financial measures, condition the relationship between RPE and improvements in performance. Also, the type of ownership (private/ public) and competition are other influential variables.

More specifically, the results suggest that, when employees respond to RPE, they seek to obtain money rather than esteem. Performance measures are the most influential item in RPE followed by peers. Regarding the performance measures, the evidence suggests that using both financial and non-financial measures would enhance RPE whereas, peers should be chosen so that they constitute challenging but attainable targets otherwise, RPE would be an ineffective motivational mechanism. In the Egyptian sample, RPE was found to be used in Dairy company which belongs to the private sector and in United Utilities which is a privatised multi- utility group in the UK. In both companies, RPE was confined to rewarding top management only as a response to market and strategic influences. In contrast to the existing literature of RPE, the evidence suggests that the internal comparisons between divisions are another version of RPE. One major finding of the study is that RPE is consistent with the environment of the private sector -but not the public sector- in Egypt. The former environment aims to enhance market share and respond to competition by encouraging employees' initiatives and creativity. RPE did not exist in the motivational mechanism of the public sector, which is governed by law. This law does not include performance comparisons initially nor does it encourage competition due to elements of social and economic policy embedded in that law. In terms of national culture, RPE was found to be used in UK more than in Egypt due to less tendency to avoid uncertainty in the UK than in Egypt. However, caution should be practiced concerning this point, as it is likely that no one reason is behind adopting RPE (or not) in any environment.

Chapter One

The Accounting handling of the "Performance" Phenomenon

The aim of this chapter is to navigate in the accounting literature to explore and identify what dimensions about the "performance" phenomenon have been discussed in that literature. The idea behind this endeavour is to link the debate about "Relative Performance Evaluation" with the wider accounting domain of control and performance measurements. This attempt is also believed to be consistent with the orientation adopted in this research where RPE is analysed as a control system and the/ components of this system are recognised and addressed. It this chapter, it is intended to review the accounting literature about performance. Also, it is planned to trace the dimensions of a control system (planning, measuring, evaluating and rewarding performance) and what aspects relate to each dimension, what factors have been suggested to impact on every aspect. An attempt will be made to accommodate RPE into this accounting context; this line of inquiry in intended to be followed throughout this research.

(1.0) Introduction: What is RPE:

RPE has been introduced within agency theory framework as a technique that can play many roles. It implies comparing manager's performance with that of his/ her peers and building rewards accordingly (Holmstrom 1982, Kunckel and Magee 1984, Fredrickson 1992, Conyon and Gregg 1994).

The existing literature suggests many roles for RPE, among them; a motivational mechanism, monitoring technique, planning tool and risk filter. The main concern of this research is to investigate the motivational role of RPE. In this respect, it will be considered that the "objective" of RPE is to improve performance. The mechanism by which this improvement is achieved is "motivation" and the tools which might affect this mechanism, involve the content of RPE (i.e. the peer group, the performance measures, and the reward) and the context within which it operates.

Many disciplines such as economics, management, psychology and industrial relations and others have contributed to the development of RPE. The aim of this research is to investigate RPE within the accounting domain of performance. Therefore, this chapter reviews the accounting literature of performance, performance measurements, competitiveness and motivation. This review is the foundation for studying RPE in this research. Firstly, it is worthwhile to identify whether RPE is a mode of responsibility accounting, a performance measurements system or a control system. Although the interrelation between the three concepts is not denied, identifying what RPE can be regarded as a crucial point to draw a framework to address RPE, select the dimensions to be investigated and the literature to relate to.

(1.0.1) Is RPE a mode of responsibility accounting?

Ferris and Mitchell (1987) and Young (1985) discuss the roots of RPE in the psychology literature. RPE is based on the social comparison theory whereby the existence of "others" is expected to exert some pressure on the individual to affect his behaviour and performance. Wilson (1993) argues that responsibility accounting focuses on allocating responsibility for achieving goals. In this sense, it could be argued that the central point in RPE is the performance comparisons. The role that RPE plays here is motivation through these comparisons rather than tracing employees' responsibility about competing with peers. Choudhury (1987) argues that relative performance evaluation introduces an element of risk into manager's performance which implies a violation of the controllability principle. Furthermore, labeling RPE by the responsibility mode, would limit the aspects which it contains (i.e. the motivational element, the performance measures and rewards).

(1.0.2) Is RPE a performance measurement system?

Tatikonda et. al. (1998) argue that performance measurement system forms an integral part of management control system. Performance measurements system reflects the culture and philosophy of an organisation and describes how well work is done in terms of cost, time and quality. It helps set targets, track progress, motivate, communicate organisation strategic intent and influence behaviour. The researcher argues that this implies that a performance measurement system includes how to measure performance, for whom, when, what is included, what excluded and links to other contingents. In that sense, ABC and the Balanced Scorecard represent performance systems. When looking at RPE in these terms, it would appear that it is wider than a performance measurement system. RPE does not suggest "how performance" should be "measured", rather, it is concerned with "how performance" can be "enhanced". This line of thinking about RPE is distinctively followed throughout this research.

(1.0.3) Is RPE a control system?

Lyne (1995) considers a control system to be concerned with ensuring that what was intended actually occurs. Part of the concept of control is therefore, "motivation" and another part is "the measurement of performance". Motivation and control are very broad concepts that extend beyond accounting controls. However, accounting control is the focus of attention in this research. Otley and Berry (1980) emphasize that for an accounting control system to operate effectively there must be the following items:

- Clear quantified objectives
- Measured output
- A predictive model to revise objectives and comparable to the conditions within which the output result
- Corrective actions

Lyne (1995) classified this is as a feedback control system where the objective must be set ex ante in a specific and measurable form such that comparison can be made ex post and remedial action can be taken. This feedback model is static and backward looking. Businesses would prefer to take action to prevent unfavorable results through a feed-forward predictive approach. Without the ability to predict what will happen under changing circumstances, the basic accounting control models will not operate. A predictive model is not a purely technical procedure. To set revised objectives, requires an understanding of the behavior of the individuals involved. The most important feature for this purpose is to know what motivates individuals to perform to the best of their ability and how to encourage a better level of performance. Management accounting writers have used various motivation theories to construct a predictive model as part of an accounting control system.

When examining RPE in the light of this concept of control system, it would appear that RPE fits comfortably within this definition and structure. RPE can be viewed as a set of procedures that aim at motivating employees to improve performance through competing with peers. This implies setting a target (i.e. selecting the peer group to compete with); measuring output, evaluating and rewarding this output. The mechanism by which RPE is suggested to motivate employees rests on the theory of social comparisons (Ferris and Mitchell, 1987). This theory predicts that an individual would change his behaviour in order to be viewed as a hardworking person. These desires to gain social esteem and reward under RPE schemes are expected to raise the individual's concern to compete with others. The theory of social comparisons draws expectation about behaviour. In this research, it is argued that the social comparison theory represents the "predictive model" in RPE. This element of RPE will be discussed in detail in chapter two of this thesis. The procedural part of RPE (i.e. the tools" by which this motivation would be achieved) represents a "performance measurement system" in itself. This system includes setting a target (i.e. choosing a comparison group), measuring, evaluating and rewarding performance. RPE could result in showing how employees are performing relative to their competitors. If the result of the comparison is not what the company favours, corrective actions might be considered. However, deciding what actions to be taken is the job of a further investigation beyond the scope of RPE.

This leads to the conclusion that: RPE can be seen as a control system and this view will be the basis of analysis in this research. This system is believed to impact on the "performance phenomenon" through affecting its "measurements". Therefore, in this research, a special emphasis will be placed on the performance measurement system along with a theoretical and empirical investigation for RPE. One reason behind this –as discussed later in this chapter and argued by Brownell and Hirst (1986), Merchant and Manzoni (1989), Brownell and Dunck (1991), Otley et.al. (1995)- is that the components of the measurements system could affect the phenomenon (i.e the performance). Another reason is, a control system -as explained earlier- implies setting targets, measuring, evaluating and rewarding performance and is a predictive model (in the case of RPE; motivation's theory). Therefore, this chapter reviews the accounting literature as related to what these aspects expect from the motivation theory. This will be discussed in parallel to the motivation theory of RPE in chapter three. The distinction between the phenomenon and its measurement will be maintained in this review.

(1.1) Part One: Variables affect Performance

The following review of the accounting literature tries to identify different variables in relation to their effects on "performance". It should be mentioned here that, this review does not include the issue of the impact of target setting on performance, pay or rewards as each will be discussed in a separate section latter in this chapter because of their important implications for the research topic. Figure (1-1) presents variables which the researcher identified from the accounting literature as being influential on the performance and the performance measures:

Figure (1-1) The variables of the performance and its measurement in the accounting literature:

Outside the company

Uncertainty
Competition
Market

Inside The company

-strategy
-task complexity
-technology/ automation
-interdependencies
-ownership
-competition
-uncertainty
-standardisation

control system

-issues relate to budget
-participation
-rewards
-leadership
-evaluating system
-target's difficulty
-commitment
-motivation
-benchmarking

accounting information system

-measurements of performance
-style of using the accounting numbers
-degree of depending on financial terms
-type of responsibility centre

Performance measures: The relationship between the phenomenon and its measurements:

Studying the role of accounting as a measuring and evaluating system of employees' performance has lasted a long time and extended to many dimensions. Kren et. al., (1988) traced various aspects of this debate. Kren et. al., (1988) review Hopwood's argument (1972) that accounting performance measures may not include all the relevant dimensions of performance because accounting tends to focus on short term results and serve many purposes besides performance evaluation. Furthermore, accounting measures are concerned with outcomes. For optimal evaluation, the quality of the subordinate's decision is also an important feature of performance. In those settings whereby the outcome does not adequately measure the quality of input by the subordinate, focusing on outcomes does not provide effective performance evaluation (Tiessen and

Waterhouse 1983). In the following part, some influences on performance (e.g. level of budget, style of budget, participation uncertainty,...etc) are discussed.

Level of Budget

Ezzamel and Hart (1987, p 353) reviewed the experimental study of Stedry (1960) on the relationship between performance, aspiration levels and budget levels. The results indicated that budget level influences performance. The implicit budget group (i.e. no specific budget standard was defined) performed best, followed by the medium, high and low budget groups respectively. It was also found that those who performed best, are those who set their aspiration levels after receiving their budget. Ronen and Livingstone (1975) interpret Stedry's results by the expectancy theory of motivation. They argue that an individual will select the aspiration level which maximises his motivation to work. If the targets are set too high, aspiration level will lag behind because the expectancy that the target will be attained is likely to be negatively correlated with the perceived difficulty of attaining targets.

Style of Budget

One aspect related to the accounting system is the style of accountability. Hopwood (1972) found support for the argument that subordinate evaluated under the budget constrained style (i.e. a high level of reliance on accounting measures) rather than profit conscious style and non-accounting style, would be more likely to experience job tension and more likely to engage in dysfunctional decision-making.

Otley (1978) replicated Hopwood's study but he was not able to confirm an increase in job tension under a budget constrained evaluation style. Furthermore, high reliance on accounting measures was found to improve performance rather than impair it. Researchers attempted to reconcile the contradictory results of Hopwood and Otley by adopting a contingency perspective and searching for situational differences. Variables such as uncertainty, participation,...etc have been introduced in the literature as explanatory variables as demonstrated below.

Task uncertainty

Hirst (1981) suggests that task uncertainty might affect the accounting numbers. As task uncertainty increases, accounting numbers increasingly lose their ability to accurately tell the whole story in relation to performance evaluation. Therefore, more reliance on accounting leads to more dysfunctional behaviour. Using this foundation to explain the results of Hopwood and Otley, Hirst suggests that Hopwood was studying units more exposed to uncertainty than those in Otley's study.

Hirst (1983) empirically tested his previous proposition. The results he obtained, indicated that when high task uncertainty was combined with a performance evaluation style that relies primarily on accounting numbers, significant job tension exists and vice versa. In his study, Brownell (1985) reported that reducing reliance on accounting measures is more appropriate to subordinates who face high levels of environmental uncertainty. The interactive effect of uncertainty with other factors such as participation is reviewed latter in the section.

Participation

Among the factors that have been the focus of attention in the accounting literature is participation. Employees' participation in budget setting has been introduced to moderate the relationship between accounting measures and performance. The positive effect of participation on performance has been supported by many studies but empirical testing of these arguments led to inconsistent results (Brownell 1982). Researchers attempted to find contingency explanations and many variables were studied.

Brownell (1982) found budget focused leadership affects performance when participation is high. Govindarajan (1984) provided evidence that participation contributed to performance when uncertainty was high but not when it was low. Brownell and Hirst (1986) found that the compatible combination of participation and budget emphasis (high/ high and low/ low) was more effective in reducing job tension in low but not in high task uncertainty. Kren et. al. (1988), suspect that participation might affect performance through moderating variables and required more tests for that and how it happens. Hirst and Lowy (1990) concluded that goals and feedback interact to affect performance, while independently, goals and feedback have no effect on performance.

Brownell and McInnes (1986) tested participation and motivation. The main hypothesis in that study was that: participation leads to improvement in work- goal accomplishment has been rejected. Meanwhile, the rest of the hypotheses like; participation improves goal-directed behaviour, work-goal accomplishment and rewards, have been supported. Therefore, the study failed to prove that participation impacts on performance through motivation.

In 1991, Brownell and Dunck addressed the impact of combined factors; task uncertainty and participation on performance. They argued that Brownell and Hirst's (1986) findings were subject to: (1) the measure of task uncertainty and

(2) sampling procedures.

They introduced task uncertainty to reflect the ability to specify input/ output relations. The easily traceable and more objective this specification is, the lower the difficulty of the task is. Their findings show that when task difficulty is low, participation leads to improvements in performance.

Uncertainty and Leadership style

Otley and Pierce's (1995) explored uncertainty as a moderating variable for the impact of leadership style on the occurrence of dysfunctional behaviour in auditing firms. Otley and Pierce's (1995) started from prior research of the problem of dysfunctional reactions to control systems. Studies applied to the auditing firms revealed a high level of budget pressure leading to a variety of dysfunctional behaviour patterns which might be difficult to control.

Otley and Pierce's (1995) study examines how subordinates' reaction to control systems is influenced by the leadership behaviour of supervisors. Two forms of dysfunctional behaviour were tested under reporting of time and reduction in quality of doing the work.

The leadership style was characterised by: initiation of structure (democratic or autocratic) and consideration. Uncertainty was recognised as a moderating variable. The study concludes that:

-high structure leadership (more autocratic) and low consideration leads to high dysfunctional behaviour.

-low structure leadership (i.e. less autocratic) with high consideration leads to low dysfunctional behaviour.

-Perceived Environmental Uncertainty moderates these relationships.

-when uncertainty increases, the strength of the previous relationships increases.

-the impact of uncertainty on (leadership- audit quality) relationship is stronger than this impact on (leadership- under reporting of time).

Degree of automation and standardisation

Brownell and Merchant (1990) studied the relationship between standardisation and automation on the one hand and the relevant type of budget and performance on the other. Standardisation was expected to affect the realisation of input/ output relationship and automation would affect the cost of input. They draw the following hypotheses:

standardisation and automation affect budget and performance.

This was subdivided into the following aspects:

-when standardisation increases, flexible budget is more appropriate.

-high automation has a positive and strong relationship with flexible budget and performance.

-static budget could be related to low automation.

In this study, Brownell et al., used a regression model for self-reported data to trace these relationships. Their results were mixed. They found that low standardisation and high participation were related to static budget and more performance whereas automation was not found to relate to flexible budget or more performance as it was expected in the hypotheses. This was explained as; either this relationship is unimportant or poorly measured.

While the previous part reviewed the studies about "performance", this part is allocated for the literature about "performance measuring" based on Otley's (1987) outline. Otley (1987) argues that any control system should answer three basic questions that can be seen as the building blocks of a performance measurement system:

(1) What dimensions of performance to be measured

(2) What are appropriate standards to be set

(3) What rewards are to be associated to achievement

Following these three themes will be explored in part two below.

(1.2) Part Two: Measuring Performance

Ezzamel (1992) set criteria for evaluating performance index. This would imply attending to the needs of both internal and external users in relation to three main areas: monitoring, assessing and guiding performance. He also argued that monitoring managerial performance would require that the performance indicator should engender corporate- optimal behaviour, promote divisional independence and maintain the controllability principle. The latter is particularly important for responsibility accounting. Furthermore, assessment of divisional and corporate profitability requires that the performance index best approximates the 'ideal' income measures if the latter can be identified. Ezzamel (1992) states that ideal indices of performance are theoretical constructs which are developed to serve as a guide against which workable measures can be assessed. They also serve as a motivating force in guiding efforts to develop more complete measures of performance. For example, if the main objective of the firm is to maximise profit, then the "ideal" income concept can be maximising discounted cash flow while maximising the value of the firm is the maximisation of the present value of future net receipts.

Evidence on this impact of firm objectives on selecting performance measures, could be found in the study of Govindarajan and Gupta (1985). They investigated the proposition that business unit strategy might affect the choice of accounting measures in performance evaluation. The evidence of this study suggests that following a build strategy (i.e. increase market share) requires improvements in long term performance, then accounting measures which are short- term oriented, would be inappropriate. Alternately, measures for new product development, sales growth or personal development will be more effective. In contrast, under a harvest strategy (i.e. maximising cash flow), reliance on accounting measures (such as cost control, profit margins and cash flow) would be more effective. Ittner and Larker (1995) examined the association between the use of Total Quality Management (TQM) and the use of non-traditional (non-financial) performance measures and rewards. The results indicate that, with more TQM, greater emphasis is placed on team and non-financial performance measures, more frequent provision of quality information to all levels and greater use of "bottom up" data gathering. Besides, with more TQM, external benchmarking on products, processes and services is more frequent and strategic information is broadly more frequent.

Daniel et al., (1991) were concerned with differences between the US and Japan, regarding quality strategies, control and reward systems. The results indicate a greater connection between quality strategy and control systems in the USA than Japan. The data show a stronger connection between quality goal setting and feedback in Japan. On the one hand, goal setting was linked to the expected rewards in Japan, on the other; feedback and rewards were significantly linked to the manager's expectation of rewards from achieving quality goal.

A Review of Performance Measuring Practice

Al Bahimani (1993, 1994) surveyed how investors, lenders and various managerial levels perceive performance measures. A primary finding was that, users were dissatisfied with the traditional cost measurements and financial measurements in the environment of new technology. The respondents expressed the need to measure new aspects like the efficiency of delivery, ability to respond to change in the environment. This need is characterised by huge amounts of investment in the new technologies. The shop floor workers reported that the non-financial measures (e.g. production rate, rejected units, meeting schedules and time of delivery) are more meaningful in handling day-to-day operations. Still, these measures are comparable with other companies (as currently used by the Japanese companies). In order to indicate managerial performance, financial return and working capital measures (rather than capital market and lender security) were widely used while suppliers' performance was of great importance.

The survey shows that, companies developed different measures for different users internally and externally. Internally, more measures were sent to the executives than to the board of directors. On the other hand, measures like return on investment, working capital, measures of demand, customer satisfaction, labour and production are reported to the board of directors more than those concerned with lender security, supplier performance and innovation. Also, value-added measures were found to be used as an alternative to sales and profit measures. Different measurements were used for outsiders (non-banks) such as annual accounts, capital market and financial measures but this does not include measures for innovation, customer, supply and labour. For banks, summary of accounts, working capital, financial return and lender security (asset cover, gearing, and interest cover) are usually used. It is noticeable that the measurements for outsiders, forms a reduced subset of the internal set of measures.

In Al Bahimani (1994), it was observed that the participants used both financial and non-financial measures. Profitability and growth measures were more important to indicate the performance of the higher levels of employees whereas non-financial measures (non-monetary e.g. the produced units, breakdowns, quality...etc.) were used more with the lower levels. Cash management was one of the major indicators of concern. A common practice was matching production, sales and breakdown against the budget.

The survey raises two issues: First; new manufacturing techniques such as JIT & TQM imposed the need of novel measures [e.g. material management and delivery]. Second; the need to measure various aspects in each activity, and third; to consider alterations in response to the dynamics of the market (competitive price, quality). However, the survey shows that performance was not seen as an effort only but a reaction to the market as well and non-financial measures are commonly and increasingly used.

(1.3) Part Three: Rewarding Performance

Ezzamel and Willmott (1998) discuss the role of accounting in setting remuneration systems through quantifying performance and by applying the reward metric to levels of performance, thus accounting can minimise judgement and conflicts. In their view, the ability of accounting to convert human performance into a set of calculations helps make individual performance more visible. Such visibility makes it easier to compare and contrast the performance of one individual against that of another or against a predetermined target for example through performance- related- pay.

The final link in the management control cycle presented in detail by Emmanuel et.al. (1990) is to link the achievement of results with incentives for managers, in order for them to get motivated to achieve the targets that are set. However, there are a variety of possible rewards, both financial and non-financial and the link can be made with both short -term performance measures and longer term evaluations of overall managerial performance. Coates et.al. (1995) argue that incentives can play many roles on behaviour and both incentives and performance measures can influence behaviour. For example, in Germany, incentives are long -term oriented and are used to broaden the role of performance measures whereas in the UK and the US, no specific roles could be recognised. It was also observed that incentives are short- term oriented in the UK and the US.

(1.3.1) Forms of rewards

Emmanuel et.al. (1990) review many forms of rewards which include, any item that mangers value such as shares, post retirement benefits, car, medical service, and promotion opportunities. The mix of desires mangers have is likely to be -on average- different from those of production line workers. For example, managers' psychological and safety requirements are largely assured. Employees might perceive the size of the monetary rewards they receive as a standard by which their self-esteem is judged.

Ezzamel and Willmott (1998) argue that the traditional monetary focus in shop floor remuneration schemes is increasingly de-emphasised in comparison to non-financial elements (e.g. training, health and safety and the prospect of greater job security). Consequently, they call for an inter-disciplinary examination for these emerging reward systems. Scott and Tiessen (1999) record the accounting concern regarding the valuation of the non-monetary items of rewards. Therefore, the FASB issued some guidelines about valuation and presentation of these items in the annual accounts especially those, which extend beyond one year (e.g. the post retirement's benefits).

(1.3.2) The Link between rewards and results

Any of the reward forms can be linked with any performance measure or combination of measures that can be used to distinguish good from mediocre or poor performance. In most organisations, the link between rewards and financial results defined as a linear function (Merchant and Manzoni1989). The linear function is the simplest to communicate and administer as presented in figure (1-2) below.

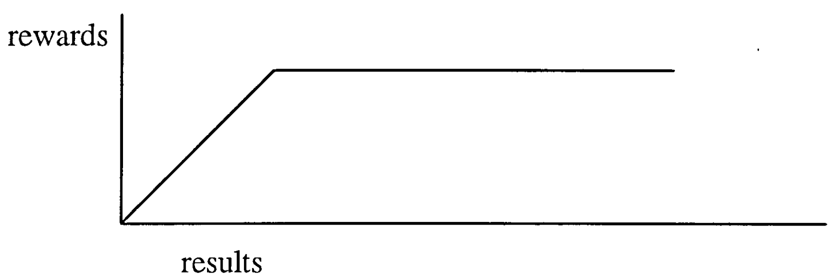

Figure (1-2) Results and rewards as in Merchant and Manzoni (1989)

The function has lower and upper cut off and it is linear in shape between these cut off extremes. Merchant found that 9 out of the 12 firms he studied set a lower cut off in their short- term incentive compensation contract. Below some significant fraction of targeted annual performance (typically the budget), these corporations promise no incentives. The lower cut- off is set because corporations do not want to pay any bonuses for performance they consider "mediocre". Companies might also define an upper cut off level where no extra rewards are provided for results above this level. These levels are usually set at a percentage of the annual profit target. There are various reasons for which upper cut off is set. For example, a fear that the high bonuses that would be paid might not be deserved, either because of windfall gain, faulty plan design or behaviour that increase current period's profit at the expense of the long term.

(1.3.3) Size and implications of performance dependent rewards

Emmanuel et.al. (1990) argue that in the UK, the Incomes Data Service reported that, in June 1988, 50% of manufacturing organisations and 40% of service organisation had some form of performance- related pay scheme. However, many of these schemes were applied at the most senior levels only, and others were only applied to shop floor employees. Consequently, the proportion of middle managers paid in this way is probably still quite small, but the movement is towards more use of schemes of this sort for middle management. In particular, the financial services sector has been at the forefront of introducing performance- pay schemes as a response to an increasing competitive environment. These schemes become increasingly important in the public sector, including the civil service and local government.

In spite of this growing importance, Emmanuel et.al., (1990) suspect that some reasons might reduce expectations of real motivational effects of performance -related pay. Firstly, not all of these performance- related rewards are at risk. Although it sounds illogical to consider all of the annual bonuses at risk, Merchant and Manzoni (1989) argue that the extent to which performance- related reward is at risk depends on the extent to which the target is attainable. Secondly, some firms' performance evaluation processes are not effective in discriminating between above and below average performers, and superiors are reluctant to make sharp differentiation between rewards.

Thirdly, the factor that might limit the motivational impact of some performance-dependent reward is the controllability over performance measures according to which, rewards are assigned. Although the profit centres managers had virtually no control over the performance of the corporation or the entity as a whole.

Another aspect of value in this debate is the valuation of non-cash items in these schemes. Sometimes the value of non-cash rewards (such as share options) is difficult although it could represent a large portion of the remuneration packages (Appendix A-1 provides a summary of a survey of pay- for -performance schemes in the UK in 1994).

Recent publications about Companies Reporting included the different practices of pay and performance and showed many implications in response to The Company's Act of 1985 and the recommendations of professional bodies such as, Cadbury Report of 1992 and Greenbury Report of 1993. Both committees devised Code of Best Practice of pay and performance. The orientation of these committees was that " shareholders are entitled to a full and clear statement of directors' present and future benefits and of how they have been determined".

In practice, companies differ in the way and reasons for which they carry out this recommendation and the reasons behind it. For example, in 1999 *Dixons PLC* disclosed in its Annual Report (page 34) that "it is important that directors' remuneration should include a significant element which is performance based. This element should be designed to develop a longer-term alignment between the interests of the company's shareholders and its senior management". In *National Westminster* Annual Report of 1999 (page 66), it was stated that in 1994 that "the group established a plan for employees' shares ownership for directors who are best placed to maximise shareholder value". *Bass* group has the same reason for applying RPE as in *Dixons*. Moreover, *Bass* informs in 1999 Annual Report (page 18) that such schemes are designed to encourage continuing improvements in the group's performance over the longer term.

Greenbury committee recommended that "separate figures should be given for salary and performance- related elements and the basis on which performance is measured should be explained". This supplements the Companies' Act 1985 which requires only total directors' remuneration to be split between services as "a director" and service of "others" in connection with the management of the company.. The company reporting showed that only 27% of companies separately identified bonuses as a component of directors' remuneration. Disclosure of this information was unheard of prior to Cadbury.

Merchant and Manzoni (1989) found that when profit centre managers are struggling to meet budget targets, the concern to avoid missing the targets and then receive penalties (e.g. loss of autonomy, loss of ability to have their own ideas funded, loss of promotion possibilities or even loss of their job).

(1.4) Part Four: Goal setting; Motivational Perspective

Because the peer group constitutes the target in RPE, it is aimed to study how employees perceive target in terms of difficulty as well as their reaction to that difficulty. Therefore, this section reviews the issue of target difficulty in the accounting literature. Merchant and Manzoni (1989) presented a survey of the impact of target attainability on employees' performance both in the accounting and the psychological stance. They state that most textbooks and articles suggest that for maximum motivation budget, targets should be "tight" but "achievable". Many authors agree (Horngren 1987, Otley (1987) who notes that "the budget level which motivates the best performance is one that is somewhat more demanding than the level of performance that will actually be achieved.

Berry et.al. (1995, p: 88-89) reviewed some of the literature of motivation and target difficulty. Their survey shows that, a difficult target tends to motivate higher performance. However, if a target is so high as to be perceived as unattainable (and is not accepted by the individual who is responsible for achieving it), results are likely to be worse than if a lower, but acceptable goal was set. On the other hand, a difference has been reported between using targets for planning and using them for motivating. The discussion about target difficulty in this chapter and this thesis is confined to the motivational aspect only. This distinction is taken into consideration while discussing the impacts of target difficulty in this chapter and this thesis. Merchant and Manzoni (1989) define target difficulty as the difference between the current performance level and the targeted level. Therefore, Merchant concluded that there is an apparent conflict with predominant textbook theory suggests the need for further investigation.

Merchant and Manzoni (1989) study: Background

Chow (1983) suggested that the relation between achievability and performance is contingent on the financial incentives associated with performance. These findings are important because profit centre managers typically operate under conditions of high uncertainty and high complexity and their performance measures are affected by many exogenous factors. They also face reward systems with both piece- rate and all- or-nothing characteristics. Thus it could be concluded that no specific evidence exists with regard to a motivational impact of target attainability on performance.

Simons (1987) found budget tightness to be positively associated with the use of monitoring and reporting controls and formula- based remuneration. He also reported a relation between strategy and budget -target achievability: budget targets of "defenders" were -on average- more achievable than those of "prospectors". Several studies (e.g. Merchant 1985) found uncertainty, information asymmetry and profitability to be positively associated with the creation of budgetary slack which, in turn, was related to budget- target achievability. Hopwood (1974) point out that no one single target can serve all budget purposes (e.g., planning, motivating, evaluating) optimally. Hopwood (1974) also suggests that for motivational purposes the target should be challenging, whereas for planning purposes, budgets are most useful if they "reflect management's best estimates of revenues and expenses... what is most probable"

Merchant and Manzoni (1989) study: findings

The evidence in Merchant's study suggests that a large majority of profit centres budget targets are highly achievable. It was tempting to call these budgets "easy", but almost all the profit managers objected and defended that each day is a struggle for them. In the light of these circumstances, these targets can best be described as *challenging but very likely to be achieved by the management team if they exert a consistently high level of effort.*

Merchant and Manzoni's study reveals that highly achievable targets have occurred because profit centre managers' aimed to increase expected bonus, protect their creditability, autonomy and enhance chances to gain esteem. It would also mean increasing operating flexibility and protection against over consumption. In that study, top managers have reasons to allow achievable targets e.g. to increase predictability or corporate earnings, protect against over consumption, reduce risk of lack of commitment, reduce control and intervention and ensure a competitive compensation package.

(1.4.1) The influences of goal setting and compensation on performance

When discussing the impacts of participation and power on setting targets, Ezzamel and Hart (1987) argue that pecuniary and non- pecuniary rewards can be used to resolve part of the existing goal conflict. More specifically, they raise a point that goals may deliberately be made vague so that participants may feel that such goals are not inconsistent with their diverse demands.

Demski and Feltham (1978) notice that performance standards and compensation schemes can have interactive effects on performance and the question is: which combination of performance standards and compensation scheme (e.g., tight standard/ low compensation or the vice versa) can induce the highest performance. Chow (1983) experimentally tested the impact of standards tightness and compensation schemes - individually and jointly- on performance. Chow (1983) started from Lock et.al. (1981) debate that specific and challenging standards induce higher performance than easy standards and; performance contingent rewards (especially the financial ones) appear to have an independent motivating effect on performance.

Therefore, Chow (1983) draw the following hypotheses:

(a) job standard tightness and type of compensation affect performance individually and interactively

(b) individuals' selecting within the pay- performance schemes is based on their skills

(c) individuals' risk preference moderates the process of selecting among pay-performance schemes.

Chow (1983) uses the term "pay fairness" to describe employees' perception of pay schemes. He argues that if employees are not rewarded "fairly" and can not do anything to change that, their performance will decline. Chow (1983) found that (1) Job standards' tightness and the type of compensation affect performance individually but not interactively (2) Individuals' choose compensation according to their skills (3) Risk attitude did not affect the choice process. Chow et. al (1983) suggest testing these hypotheses on different managerial tasks (management, production), cross sectional...etc. and with non-financial motivations (e.g., social esteem).

(1.4.2) Target's achievability as a part of the control system

Baiman (1982) suggested that when rewards are contingent on performance, trade-offs have to be made between the motivational properties of the reward structure and the risk that managers have to bear and highly achievable targets. Merchant and Manzoni (1989) debate this view of Baiman on the ground that this trade-off implies that some motivation is lost when highly achievable targets are set and this might not be true. Allowing hard-working managers to "win" nearly every year seems to have positive motivational effects by preserving an upbeat emotional spirit and thereby, inducing managers to raise their aspiration level for the following year. Managers who feel good about themselves and their organisations seem to be more likely to be highly energised and willing to take prudent risks.

It could be argued that there are two related points in this debate:

(1) motivating "the best performer"

(2) having a continuous challenge

With regard to the first point, Allan (1995) predicts that the best performers can always have their own challenge. This could be new and motivating challenges such as, creativity, controlling costs more and innovation or more generally "competing with themselves" to maintain setting on the top and make it difficult for anyone else to beat them.

Regarding the second point, the researcher argues that organisations need to set a new contest from time to time to employees to trigger them by new challenge. Any target might lose its ability to challenge employees after a while, so there is always a need for new fuel for aspiration. This can be provided through some evaluation techniques when the criterion is based on competition with peers, colleagues or other counterparts in the field. For the best performers, this might mean competing with rivals internationally. The respondents in Merchant and Manzoni's study report that they always need a new challenge, without having challenging goals, the sense of arousal and competition is reduced. However, the strength of this desire varies significantly across individuals. Merchant and Manzoni concluded that people who work in marketing and sales on average are more likely to submit to aggressive targets than people with functional backgrounds.

(1.5) Part Five

The 1990's developments in management accounting and performance measurements

The 1980's and the 1990's have witnessed a number of major developments in Management Accounting research generally and performance measurements specifically. Atkinson (1998) argues that in the 1980's, global competition increased pressures on organisations. Organisations recognised that cost accounting and accounting information could play an important role in identifying opportunities for efficiency improvements (e.g. developing measures for quality, time market and supply chain management, enhancing the role of non-financial information). This orientation continued during the 1990's, and the need to articulate the strategic choices which contribute to the organisation's success has strongly emerged.

The review of the 1990's literature led to recognising three main streams:

I: Developments in Management Accounting generally

II: Developments in Performance Measurements (e.g. ABC and Balanced Scorecard)

III: Strategic orientation

These streams will be reviewed briefly in this section.

(1.5.1) Developments in Management Accounting Generally

Recent literature (Kaplan 1994 (a), Scapens 1994, Ashton, Hooper and Scapens 1995 and Allan 1997) identified some major trends in the 1990' research of accounting management. This included developments in the research framework (Scapens 1994), the structure and environment of the contemporary organisations (Otley 1994) and management accounting practices (Kaplan (1994,1996).

In terms of research framework, Scapens (1994) called for a shift from neoclassical theory and alternatively the adoption of institutional economic approaches. The institutional framework views accounting practices as institutionalised routines that enable organisations to reproduce and legitimate behavior and to achieve organisational cohesion. Accounting is a set of rules and procedures, which enables decision-making in a complex and uncertain world. The institutional framework allows a better understanding of management accounting practices in organisations when examined within its market and social context.

Otley (1994) shares Scapens (1994) the concern about studying the context of accounting practices and invite researchers to widen the framework of analysis. Otley (1994) argues that the traditional Management Control is based on the 1960's assumptions of organisation with an emphasis on accounting based controls. The contemporary organisation has different characteristics in terms of more rapid and increased changes, difference in size, concentration and alliance and the decline of manufacturing. These issues emphasise strategic planning and operational control, flexibility and the integration of financial and non- financial controls such as the "Balanced Score Card". Besides, intense competition has led to the formation of "Cartels" where organisations cooperate to keep stability in the market and encouraged practices such as target costing and benchmarking where companies seek to compare their performance to that of their competitors or to the best practice in any sector. In this setting, performance management system which traditionally encourages conservatism, has to change so as to encourage managers to define areas of experimentation and risk taking. This is important because the "learning organisation" should respond to changes in the environment.

Ashton, Hopper and Scapens (1995) are consistent with Scapens' (1994) invitation to investigate behavioral and cultural differences in management accounting practices. For example Lyne (1995) discusses the importance of behavioral research in accounting which receives an increased concern in Japan and provides more complex models than economic ones.

(1.5.2) The Balanced Score Card

Kaplan and Norton (1992) introduced the balanced score card to complement financial measures with operational measures on customer satisfaction, internal processes and innovation. This combines and creates a link between corporation strategy, internal processes and external environment. This measuring system measures the future value of the company (Kaplan, 1994, 1996) and stresses that there is no single measure for targets which create future value and that business objectives extend beyond the financial figures to include: quality, employee's satisfaction and/or customer loyalty. Otley (1994) argues that BSC represents a tool of measuring "what the business attempt to achieve and how?" by defining key factors of success and developing a set of performance measures accordingly. This requires going outside the company to measure, for example, success in delivering goods and services. TatiKonda (1998) recognises that BSC starts with identifying a vision and strategic goals then progressing to linking strategies to performance measurement and rewards. However, Smith (1998) debates that the integration of quantitative and qualitative measures to indicate relative organisational effectiveness remains a challenge for BSC.

(1.5.3) Strategic Management Accounting

Atkinson (1998) describes the 1980's as the period of seeking competitiveness and defines the role of management accounting in achieving it. The 1990's are featured by strategic orientation, which has led to developing a growing literature about strategic management accounting and strategic performance measurement system. Strategic Management Accounting aims to focus on external products and service markets and on the company's position relative to its key competitors (Simmonds 1981, Simons 1987 & Moon and Bates 1993). Moon and Bates (1993) state that the major role of Strategic Management Accounting is to provide information about competitive advantages. This implies measuring the key success factors and assessing them against competitors. Atkinson (1998) adds as a final step in strategic performance measurement, to tie incentive pay to the results identified. This should meet all the criteria for effective compensation. First, pay would be tied to a performance level which the individual accepts and understands. Second, the performance is oriental toward promoting the organisation's objectives. Third, the compensation structure provides for developing information that can suggest better ways of identifying what is required and the causes of successful performance. Otley (1997) stressed that benchmarking can also provide a set of techniques for setting targets that are related to competitive success and acceptable to those who will attain them.

Final Remark on the developments in management accounting in the 1990's:

The discussion in this chapter leads to the argument that with the comparison element, RPE could be seen as a tool of strategic management accounting. That tool could serve in motivating employees to improve performance and enhance the company's competitive position against competitors. In a case study on RPE in some US companies, Maher (1987) found that peer company analysis was designed more to provide information about how to improve future performance. One reason for that was to develop strategies for moving into new product lines. It was also used in strategic planning at functional levels in the organisation to re-assess financial measures compared to competitors. That was consistent with top management's incentive compensation, which then relied more on corporate return on investment than it had in the past.

Summary

The chapter reviewed the accounting literature of performance and of performance measures as the wider domain to which the RPE technique belongs. First, a distinction has been made between the "performance" as a phenomenon and the factors that could affect it and the "accounting handling of that phenomenon" which includes planning, measuring, evaluating and rewarding that performance.

Many variables have been recognised in the accounting literature to affect performance as a phenomenon such as performance measurements, participation, motivation, style of accountability, uncertainty, leadership and dysfunctional behaviour. Variables such as divisional independence, controllability and strategy are among the variables which affect the performance measures. Surveys show that in practice, non- financial measures are increasingly used. With regard to the rewards, the chapter discussed the form, size and motivation of reward. Professional and academic boards encourage the disclosure of more information about employees' remuneration, the bases of calculating them and handling the non-monetary rewards. The issue of goal's achievability and its motivational impacts has been discussed in detail in this chapter where literature supports that target should be difficult enough to challenge employees but should also be attainable, otherwise, it will de-motivate them. This aspect is thought to be particularly important when discussing the element of peers -as a target- in RPE. The chapter included a review of trends in management accounting literature in the 1990's. That review reveals that competitiveness and strategic choices are among the major streams where RPE could be seen as one of the strategic management accounting tools.

In this chapter an attempt was made to answer the question about what is RPE? Three assumptions were discussed; whether RPE is a mode of responsibility accounting, a performance measurement system or a control system. The investigation led to regarding RPE as a control system and this implied analysis the following aspects in RPE: the target, the performance measuring, evaluating and rewarding in addition to the predictability of the model. Moreover, investigating RPE from this perspective, suggest that RPE might affect "performance" as a phenomenon through the motivation mechanism and through its components as a control system (i.e. target, performance measures and rewards). Chapter two will provide a presentation of the previous studies of RPE in terms of research questions, framework, method, data, analysis and findings.

Chapter Two

A Review Study of the Literature of the Relative Performance Evaluation

Chapter one reviewed the accounting literature about performance as a phenomenon and the accounting handling of that performance. The chapter traced some variables which were suggested in the literature to affect performance and split the accounting handling of performance into research about setting targets for performance, measuring, assessing and rewarding that performance. With regard to target, attainability was seen as a crucial feature, controllability and including non-financial measures were important in measuring performance and suitability of reward to the managerial level along with the level of basic salary comparing to incentives. Chapter one also included a review of the major trends in management accounting in the 1990's where competitiveness was a remarkable feature and RPE was recognised as a control system. This framed the elements to be studied in the technique of RPE to be the target, the measurements, the reward and the motivation's mechanism of RPE.

The purpose of this chapter is to review the core studies of Relative Performance Evaluation in order to obtain a close view of this technique, its definition, roots, elements, patterns and measurements. It will be of special interest in this exploration to trace the previous studies in terms of the research question/s, hypotheses, assumptions, method, data, limitations and findings. This presentation of the studies of RPE will include a commentary on each study. However, to be consistent with the research objectives, it is intended to provide a detailed critical analysis for this literature in the next chapter with links to the accounting literature of performance.

(2.0) Introduction

Over the last fifteen years, research in the area of relative performance evaluation has attempted to study various theoretical and empirical issues (as demonstrated in this chapter). The studies focusing on conceptual issues have been devoted to aspects such as the assumptions, implications, and economic and behavioural interpretations of RPE. The studies concerned with practical aspects examined the extent to which RPE is used to reward managers, the measurements and the components of that remuneration package. It is worth mentioning that the scope of enquiry in this research is to investigate RPE within the accounting domain and to focus on its impact on performance. Therefore, this study will not extend to issues such as RPE and filtering risk (Green and Stoky 1983), the solutions of RPE contract as a type of multi- person game (Knoeber and Thurman 1994), RPE contracts and the equilibrium in labour market under a defined degrees of competition (Fumas 1992) or RPE and promotion decisions (Lambert, Larker and Weigelt (1993).

The following discussion provides a summary of that literature. Tables (2-1), (2-2) and (2-3) at the end of this chapter, provide comparisons between these studies in terms of research methods, questions, data, measurements and findings. The presentation in this chapter will not follow a chronological order; instead, a complementary thread (i.e. how a study has filled in a gap in the previous studies) will be pursued.

(2.1) Holmstrom's (1982) Theoretical Model of Relative Performance Evaluation

Holmstrom (1982) presented the basic model of the relative performance evaluation "RPE" based on the agency theory. He started with a risk- neutral principal who hires a number of "n" agents indexed by "i" to take actions a=1,2,...,n. Agent "i" selects an independent and non-collusive action (a)i and possesses an additively separable utility function expresses an amount of wealth received. Each agent is assumed to be risk and effort-averse. Within a state of nature (s) and an action (a), there will be an outcome (x) which is assumed to be mutually observable. The principal must choose sharing rules to maximise expected net profit subject to two sets of constraints. The first set ensures that each agent receives an expected utility at least as great as the opportunity cost of accepting employing for the principal. The second set of constraints ensures that each agent's action is the best response to the other agents' actions given the sharing rule. The

second constraints explore the role of the peer group, because it is the comparison with peers that will help the principal to find out whether the agent's action is the "best response" or not. Hence, the optimal sharing role will be a function not only in the agent's outcome but his peers' as well if and only if these outcomes are independent. Given that (s) is that state of nature, (a) is agent's action and (x) is the outcome,
Holmstrom proved that if a signal (y) provides information about (a) or (s) over that provided by (x) alone, thus the pair of signals (x,y) would be less noisy about (a) than (x) alone. Therefore, (y) would be valuable for building contracts and compensation schemes. The signal (y) will represent the agent's performance compared to that of his peers. Such a plan is expected to improve risk sharing and provide the agent with an incentive to exert effort. The informational value of the peer group or any other signal which can help the principal to separate the agent's effort from random fluctuations of output, was expected to improve contracting.

Holmstrom anticipated that RPE could induce competition among agents by tying their rewards to each other's performance. Letting an agent know that he would be compensated according to RPE in a feedback process suggests that he would compete against others in an appropriate behaviour and that he would pay more attention to the comparison group that he is competing with. Holmstrom's model implies assumptions such as: individual agent, no existence of technology effects or investment

Holmstrom's argument rises questions about mutual effects between competition and RPE. Competition can be viewed as an independent variable which might affect the efficiency of RPE. The performance measure of a peer group is assumed to play an informative role for economic and behavioural considerations. The study of Fredrickson (1992) -which will be presented next- has examined that assumption.

(2.2) Fredrickson's Experimental Study for Behavioural and Economic Consideration (1992)

The aim of the study was to explore behavioural and economic effects of RPE contracts along with the effect of uncertainty on effort. Fredrickson (1992) conducted laboratory experiment -requiring MBA students as subjects- to act as managers and to take production decisions for a hypothetical company. Half of the subjects worked under a profit-sharing scheme according to which, their compensation was solely based on their absolute performance. The remaining subjects worked under an RPE contract that based compensation on both absolute and relative performance. There were three levels of common uncertainty. The risk and the effort preferences of the subjects were induced experimentally.

The variables under investigation were: uncertainty expressed in different accepted quality of units of production, effort measured by total units produced and compensation calculated for each participant on the basis that each produced unit was converted into monetary reward.

The experimental findings provided evidence for Fredrickson's proposition that RPE should be interpreted according to economic and behavioural factors. The economic factor referred to the agent's desire to obtain a high reward through competing with the others whereas the behavioural factors denoted the agent's desire to be viewed as a hard-working individual by colleagues and employers. It was also found that subject's' effort' levels were generally higher under RPE contracts than under non-RPE contracts. This result also manifested itself when the degree of common uncertainty increased.

Whilst Fredrickson conducted an experiment to investigate the implications of RPE and the influence of uncertainty on it, Gibbons and Murphy (1990) depicted another influence of uncertainty on RPE in relation to some aspects of the reference group as follows.

(2.3) The Empirical Study of Gibbons and Murphy (1990)

Gibbons and Murphy's (1990) study -based on field data- attempted to explore the extent to which chief executive officers "CEO" were rewarded on the basis of RPE according to different reference groups (industry, market) and different compensation packages. One of the argumentative aspects of this study was the cost and benefits of RPE suggest that filtering common risk could be removed more effectively in some situations than in others. Improving risk sharing and motivating effort represent benefits, whereas costs include that cost of observing the reference group's performance and those of potential distortion (e.g. sabotage, collusion, affecting the choice of the reference group or affecting its performance). Although it was the first time that costs and benefits of RPE be mentioned, Gibbons and Murphy (1990) did not operationalise these items or discuss how they could be involved in the analysis. Gibbons and Murphy (1990) expected the relationship between the agent and the reference group could negatively impact on the effectiveness of RPE. For instance, if there was any kind of sabotage, collusion or influence on choosing peers or affecting their performance, the potential impact of RPE on employee's motives will be distorted.

It could be argued here that, those factors- if they exist- might discourage the use of RPE and not only the vice versa. Another point is that it might be difficult to expect such actions from an individual agent working in a huge industry or market due to communication difficulties between a large number of agents who would necessarily have different interests and different ambitions. Even when the agent is a group, they are expected to co-operate with each other and work as a team while competing with other group(s). Concerning the size of the group, Gibbons and Murphy (1990) argue that the tendency to sabotage or collude with others is more important when the number of co-workers is small. Therefore, RPE is expected to be less effective for small groups than for large ones. The impact of the size of the comparison group on RPE, is a repeated point in the literature [Dye (1992) and Holmstrom (1982)]. Therefore, RPE might be more effective when the employee does not have an influence on the choice of his peers or their output.

The study of Gibbons and Murphy (1990) used the CEO's compensation as listed in Forbes from 1974 to 1986 for 2214 executives in 1295 firms. The compensation package was measured firstly with exclusion of stock holdings and stock options and secondly was measured on total compensation including those items. Performance measurements of the firms were the change in shareholders' wealth, which was regarded as the continuously accrued rate of return. The industry index was used once as the reference group measured by accrued return on the value-weight portfolio of all firms in the same industry and another time as the same measure for all firms listed in the Compustat database. The data was adjusted for inflation.

In order to infer the use of RPE, the researchers used a regression model. Their idea was to trace the change in salary and bonus on the one hand and three variables for firm performance in the other. These variables were: the firm's return on common stock, the firm's return on common stock compared to that of the industry and the firm's return on common stock compared to that of the market.

The research outcomes advocated the hypothesis that RPE partially filtered out uncertainty shared with other firms in the industry from the CEO's compensation. It was found that board of directors made some industry adjustments for industry trends when determining executives' rewards. Besides, market risk was filtered out but compensation was found to be more closely related to market-related returns than to industry relative return. When the analysis included both industry and market returns, CEO's were found to be rewarded not only on the basis of market- relative performance but also on an absolute performance. The industry coefficient was no longer statistically significant after controlling market movements; however, it was still negative although RPE did not identify whether industry or market was the more important source of risk. Nevertheless, this study was the first to yield different results because of using different reference groups but this issue has not been explained.

It is worth noting that RPE's ability to remove the impact of random events from performance measures is a controversial point in the literature. While Gibbons and Murphy ascertain the ability of RPE to perform that role, there is another stream in the literature (Lambert 1993, Feltham et.al., 1994, Green et. al., 1983) which does not. The latter stream adopted the view that the "noise" or the effects of the uncontrollable events should be separated from the performance indicators in order to measure performance, evaluate it or build an optimal contract.

In addition to that, the regression revealed that for total compensation (salary, bonus, restricted stock, savings...etc.) and industry and market performance measurements (as well as absolute firm measurements), there were negative and statistically significant associations (more significant with market return). This means that broadening the measure of compensation did not affect the use of RPE.

Concerning the impact of the performance measures and workforce retention, the evidence showed that the probability of continuing work for the same firm in the following year was positively and significantly associated to the firm's performance.

However, that probability was negatively and significantly associated to industry and market indicators, but no explanation was given.

Gibbons and Murphy (1990) drew some limitations to their analysis. First, no attempt was made to distinguish between the incentives and learning versions of RPE. Second, in spite of finding evidence that proved the role of RPE in motivating performance in terms of "current shareholders return" but not in terms of "change in shareholders wealth", the difference between the two measurements was not expanded any further.

It could be argued that while the first point might be valid for the literature of RPE. That is because there was no work on the impact of learning and RPE. Nevertheless, there is no evidence on the second point. Because, Kunkel and Magee (1984) have already investigated whether there was a relationship between RPE and "the change" in return on common shareholders equity as a measure of the agent's performance. The following section is a review of Kunckel and Magee 's research and results.

(2.4) The Empirical Study by Kunkel & Magee (1984) for RPE and the Executive's compensation:

Kunkel and Magee (1984) state that the aim of their study was to examine the use of relative performance measures and how a reward scheme can be built on it within the agency theory. Their idea was to establish an association between employees' compensation and firm (or industry's) performance. The study used the following variables: (1) individual performance measure for each firm measured in terms of the accounting measure for the return on common shareholder's equity (the operating income divided by the end-of-year shareholders' equity). (2) industry index was the average change in the accounting return on common shareholders' equity of the firm in that industry. The net income and common shareholders' equity figures for each firm were retrieved of the period from 1976 to 1986. The dependent variable in the analysis was the percentage for the change in salary and bonus from one period to the next for the chief executive officers of each firm (which means that it does not include stock options and so it is not a total compensation). The data is collected from the "Forbes" survey of executive compensation for the year 1970-1980.

Kunkel and Magee emphasised that in order to enhance RPE, all the firms in the industry should be direct competitors exposed to the same economic forces. The survey included 7 industries (11 firms from paper industry, 8 textile, 10 rubber, 11 steel, 11 pharmaceutical, 8 in air transport and 17 banks).

In order to test the use of RPE, the researchers estimated the following two functions for the compensation using the ordinary least squares:

1) PCt = a + b1 DROEt + εt

2) PCt = a + b1 DROEt + b2 ADROEt + εt

Where PCt is the percentage change in salary and bonus in period t, DROEt is the change in individual firm's return on equity in period t (the individual performance measure). ADROEt is the industry average change return on equity in period t (the relative performance "benchmarking"). All variables are expressed as changes because the level of all variables exhibited significant serial correlation.

Kunckel and Magee expected that if RPE was used, the introduction of the ADROEt variable in the second equation should result in a significant increase in explanatory power (R square) over the first equation.

The model estimated a percentage change in salary and bonus during the period of concern according to a constant, the change in the firm's return on equity and the industry's average change in return on equity for the same period (as a benchmark).

The findings prove -to some extent- the idea that compensation is related positively to firm's performance in most of the other firms in the sample reflecting a consistent use of the firm measurements in building agents' rewards. The results about industry measures are not that consistent. There has been evidence that industry index is used in some industries as a reference measure while this has not been the case in other industries. In 8 industries out of 11 the coefficients were negative between compensation and company's performance compared to industry's performance. This led the researchers to predict an inverse relationship between industry's performance and agents' rewards as anticipated by RPE. This general conclusion was not consistent across industries. For example, the majority of coefficients in three industries (paper, banking, and insurance) were negative while only half coefficients were negative in the other industries. Moreover, the results regarding the strength of the relationship were mixed. The model performed much better for the paper and steel industries than for the rest of industries. Hence, there is a lack of overall significance of the impact of industry measures on rewarding managers. However, in spite of being considered one of the objectives of the study, no interpretation of these results has been given. It is also worth noting that the characteristics of certain industries which encouraged the use of RPE, have not been illustrated either.

Maher has explored some features that could encourage the use of the RPE in some industries and in some companies in an industry using a case study. Maher's study contains companies with different activities, sizes and characteristics as detailed below.

(2.5) The Case Study of Maher about the implications of applying the RPE (1987):

The purpose of the research was to investigate whether and how companies use RPE to appraise divisional performance and if so, how it is pursued. The main questions of the study were (a) how the comparison groups of firms which face the environment is determined? (b) What characteristics of firms and contracts give rise to RPE? and (c) Can RPE be used with various managerial divisions or is it limited to the top management?

In order to study the characteristics of firms that adopt RPE, Maher investigated five firms. He justified his choice on the basis that these firms shared certain characteristics: they were relatively large, publicly traded and manufacturing- dominated firms. There was an important difference in diversity of operations (they were operating in insurance, telecommunications equipment, and automobile components).

The research provided mixed results. First, different practices of RPE were reported. In firms with diverse activities, there were no explicit comparisons between competitors but an implicit comparison with the economy as a whole. Top management was evaluated according to explicit short-term financial targets. With regard to division managers, RPE was used with much emphasis on financial measures (e.g. divisional profit) as a basis for evaluation. In Honeywell, which was a company with massive diverse production and acquisitions, RPE was currently used, primarily for strategic purposes but it was not explicitly used in managerial incentive contracts. The study found that a division manager keeps his division in line with top competitors as a factor in evaluating him/her. The findings showed that; first, meeting explicit financial targets increased risk concerning rewards and reduced the tendency to adopt RPE. This finding contrasts with Fredrickson's (1992) who reports that an increase in uncertainty increases effort and encourages the use of RPE. Nevertheless, it could be argued that rewarding agents on the basis of RPE could be safer than tying their pay to the result of matching their performance to rigid targeted figures (e.g. budget, plans...etc). Comparing the agent's work to his peers is a more realistic evaluation because it implies a consideration of the actual circumstances within which this performance occurred. Besides, a comparison with peers sharing the same environment and exposed to the same market forces and the same uncertainty might provide a realistic signal about the manager's effort.

Secondly, Maher found that, in less diverse companies, division manager's work was compared to other managers' in terms of how well they carried out the orders of top management, as quality, efficiency and production schedules. These indicators were more important to the firm than filtering the impact of the environment because of the inclination to secure production integration. There were no interfirm financial comparisons for top management. Third, although no explanation was given, the diversity in activities might discourage the use of RPE.

Finally, a company in the survey was found to use a comparison with its competitors in order to secure its long-term strategy. In doing so, the company had a council of peers against whom, manager's performance was matched. For top management, the comparison not only included short-term financial measures but also the progress in the field of developing new products and innovation as well.

While Maher explored the practices of RPE in 5 companies, the characteristics of those companies and the impacts of these characteristics on using RPE, Conyon and Gregg (1994) focused on studying specific issues in the company's environment, such as take-over operations, union presence and using RPE. The details of that study are discussed in the following part of this chapter.

(2.6) Conyon & Gregg (1994) study of the sensitivity of Top Directors' pay to company specific operating environment

Conyon and Gregg (1994) assessed the importance of changes in the company's specific operating environment, which Conyon & Gregg called "Company Chock" in shaping executives' compensation. The researchers addressed two related issues:

1. To what extent was the compensation package of executives justified by the performance of their companies?
2. How important the company specific information available to shareholders (company specific shocks) in conditioning executives pay.

Conyon & Gregg used a data set of 558 companies extracted from Datastream International and EXSTAT data basis. The companies belonged to all industries except banking and insurance. The sample mainly consisted of larger publicly quoted companies. Top director's pay was the total of the annual remuneration package of the highest paid director of the company. This included salary and bonuses but not share options. Company performance was measured by shareholder returns and sales growth. The data covered the period between 1985 and 1990.

The empirical analysis suggested that relative performance evaluation was taken into account when determining pay. This was applicable when performance was measured by sales growth but not by shareholder returns. Also, reduced union presence resulted in higher pay for top executives. What surprised Conyon & Gregg was that lower cash holdings relative to current liabilities raises pay, as does expansion through take-overs. The researchers concluded that the rise in executives pay in the 1980's more than the rise in companies' performance, might imply that either managerial skills were becoming increasingly valued by shareholders or that top executives were increasingly able to influence their own pay level.

Whilst Conyon and Gregg (1994) addressed issues related to the company's environment and RPE, Antle and Smith (1986) shared the concern about the implications of this environment on RPE. The implication of environment which Antle and Smith (1986) looked at was the environment's indication of the company's performance as represented in stock market- based measures. Antle and Smith (1986) investigated the impact of using accounting and market-led indicators for performance on benchmarking managers' output.

(2.7) The Empirical Study of Antle and Smith (1986) for the use of RPE and the Industry and Market Fluctuations:

The objective of the paper was to empirically investigate, whether top corporate executives were compensated as if their performance was evaluated relative to the current average profitability of the firms in the same industry. Their investigation was based on the assumption that, tying executive's pay to the firm's performance helps in aligning the goals of the executives with the goals of the firm's owners. This could be addressed by focusing on the association between executive compensation and specific performance fluctuations as opposed to industry fluctuations. In addition to that, it was aimed to examine the role of accounting data in filtering the risk faced by corporate executives.

The hypotheses of the research were examined through time series regression for compensation of 39 firms in three industries: chemical, aerospace and electronics, for the period from 1947 to 1977.

The study used the following measurements: return on common stock and accounting return on assets. The first was used because it was generally agreed that returns provide information about changes in the firm's financial conditions that reflect both current and anticipated actions and events. Furthermore, most of the executives' wealth is tied to stock returns directly through ownership of shares in their employers' companies. The writers have selected this measure rather than other measures, because it is explicitly tied to incentive plans and because there is generally a high correlation between it and other accounting measures.

The compensation was estimated from the current income of the highest paid executives in the sample. The current income includes the amounts of after-tax compensation package. The term compensation package is used broadly to include the after- tax salary, short term bonuses, deferred-to retirement bonus, stock holdings, stock bonus, stock options, dividends units, pension benefits...etc.

The results of the study were mixed regarding links between executive's pay, his/her absolute performance and the industry's performance. The most significant evidence for using RPE was collected by a non- linear regression. The model examined the association between employee's compensation and RPE built on accounting measures (return on assets ROA). The results proved that each compensation variable was more closely associated with the "relative" return on assets than with the "absolute" return on assets. Meanwhile, the results were inconsistent with regard to evaluating executives on the basis of market measures such as return on common stock (RET) relative to that of competitors'. The RET included the stock price information relevant for valuing the firm but not necessarily for evaluating management. A non-market measure ROA might have an advantage in motivating. The theory was that an executive's ability to encircle the risk imposed on him/her through a compensation plan based on accounting measures was likely to be less than when a market measure is issued. Also, return on common stock partially filtered the common industry risk out of executives' evaluation. Another result was that a more comprehensive compensation variable reflects change in individual's total wealth, provides stronger support for the relative evaluation than the less comprehensive variable.

Antle and Smith (1986) findings suggested an effective role of different performance measurements on using RPE still to be questioned. That is, when Antle and Smith (1986) tested the existence of RPE using certain measures of activities, they found evidence that it existed with some performance measures but not with others. However, no explanation was provided. In addition, different measures were found to have a different capacity to filter risk, without indicating the reasons behind that. It could also be noted that studying the change in (rather than the absolute) shareholders' wealth did not make a difference in supporting and encouraging the use of RPE. The results of Antel & Smith (1986) were consistent with Gibbons & Murphy (1990) that there was no impact of using more comprehensive compensation on RPE.

The role of RPE in compensating agents was not the only issue that was demonstrated in the literature. The impact of RPE on agent's investment decisions was analysed from different points of view and including some influencing factors as in the study of Chow & Haddad (1991) and Dye (1992). These studies are respectively reviewed.

(2.8) Chow & Haddad's Experimental Study for the Effect of RPE on Investments Decisions under Uncertainty (1991)

Chow and Haddad (1991) tried to trace the effect of RPE on risk aversion in delegated investment decisions. The study hypothesised that under a standard- based pay contract, the risk aversion of an agent when making decisions about resource allocation would be jointly determined by the level of environmental uncertainty and the use of a relative (as opposed to absolute) performance standard.

The study examined two independent variables: degree of uncertainty (low vs. high) and performance standard (relative vs. absolute). The participants were assigned to an absolute and relative performance standard with a certain managerial pay contract. They were asked to make their investment decisions and calculate the realised income. The researchers informed the subjects about their pay and the median performance of each peer group.

The study concluded that there was an interactive effect between environmental uncertainty and the type of performance standard. This conclusion suggested that uncertainty affected performance when performance was evaluated in absolute terms. This was consistent with the literature (for example, Otley 1984 and Kren et.al., 1988). However, the finding also included that uncertainty could affect performance when evaluated on a relative basis. This was consistent with the conclusions reached by Fredrickson (1992) and Kunckel and Magee (1984).

In addition, the study found that if rewarded under RPE, subjects tend to select projects with equal risks regardless of degree of uncertainty. By contrast, subjects who were rewarded according to their absolute performance measures tended to select significantly lower-risk projects when environmental uncertainty was high. These results suggested that RPE might reduce managers' reluctance to adopt risky investments especially in firms operating in high-risk environment.

A question arises here concerning the reason(s) behind this result and the extent to which the economic and behavioural interpretations which Fredrickson (1992) introduced, could support the impact of RPE on projects selection.

(2.9) Dye's Empirical Study of RPE and Projects' selection (1992)

Dye hypothesised that the effect of RPE on project's selection would depend on the number of industries or projects to which the agent has access. It was expected that when an agent has limited discretion in project choice, RPE would lead to improvements in contracting. If the agent's and the rivals' talents across projects were statistically independent and identically distributed, then the agent was likely to be relatively most talented in a project which he/she was also most absolutely talented, if the number of projects was sufficiently large. The existence of pre-decision private information could permit the agent to tailor his effort level to available production conditions. This supports the idea that private information could increase moral hazard (which assumes that there is a relationship between the two control problems within agency theory). But it could be argued that the opposite might be true as well, the existence of private information could increase the agent's ability to tailor his effort on the light of his job's requirements. This debate was basically founded on the notion of the distinction in the information acquired by the agent and the principal. Presumably, the agent's larger involvement in the work gives him a chance to capture more information than what the principal could get. Given that the agent is assumed to be self-interest, he would not be expected to share information with the principal. An interaction between the two types of information asymmetry (regarding effort and regarding action) was expected in the literature (Jaworski 1992, Loeb 1994, and Kirby 1991).

The sequence of the study was that each manager received a contract from his employer and information about his and his rivals' talents in all projects. Also each rival was informed about his talent and that of the others'. Given this information, the agent chose a project and exerted some unobservable effort which statistically affected his firm's earnings. Finally, earnings were realised and agents were paid according to the terms of their contracts.

Under tournaments incentives contracts, managers preferred to operate in industries where their relative talent was the greatest whereas their principals preferred them to operate in industries where their absolute talents were the greatest. That is because the principal considered that they consumed the agent's actual not relative outputs.

Nevertheless, fixed compensation was not an assumption in RPE and being the best does not mean less adoption of RPE, even the best performers might set higher goals and adopt RPE. Allan D, (1995) argued that the leader of a market might give considerable thought to how to make it difficult for others to follow him. The experience he might be keen to learn would stem from his own practice. This does not rule out benchmarking. What it does is replacing objectively verifiable measurements with subjectively judgmental assessments. Leaders establish their own benchmark which might be in the form of future strategy, product development etc. However, Dye (1992) considered that the existence of agent discretion in project selection could reduce using RPE when agents have private information about their own and their rivals' talents in alternative projects. The usefulness of RPE was related to the thinness of the market in which an agent operated. When there were many agents in the same industry, mapping between an agent's output and his effort is probably well understood because of the bigger data sample which generates an estimation about the average performance of an agent in the industry.

In his case studies, Maher (1987) argued that RPE could reduce manager's incentives to make strategic moves into new industries. Filtering risk might serve manager's interest to continue to operate in a poorly performing industry where his division performs well compared to the competition. This decision might be of appeal more than moving into a more profitable industry in which the manager's division would be a better performer in absolute terms but a worse performer in relative terms. This argument of Maher's (1987) contradicts with Dye's (1992). Dye's (1992) considered that the best in absolute performance will be the best in comparison and RPE is still valid.

Dye (1992) regarded production technology to be among the factors that affect the evaluation process. First, because of the homogeneity required for different projects exposed to identical common stock. Second, because technology affects project's outcome and production's inputs. Output is a combination of talent-action and stochastic component. Increases in talent leads to increases in output and increases in effort leads to increases in output. Therefor, effort and talent are complementary.

In spite of that debate, Dye (1992) observed technology as having a special impact on choosing effort because when an agent accepts a principal's contract, he starts to take actions and choose an effort level to carry out those actions whether this relates to a decision, project...etc. When choosing an effort, an agent takes into account the environmental and organisational factors that influence him/her and one of those factors is production technology. Hence, it is already included in the agent's decision.

One question relates to Dye study (1992) is: how to measure the influence of technology. Another point is: in what terms technology will be differentiated? Is it new advanced production facilities? The amount of money invested in assets? The resources differ from one company to another so how will similarity be secured? It could be argued that technology should be taken into consideration by using a performance indicator such as, return on assets, which reflects employee's performance in proportion to his/her company's resources.

While Dye (1992) studied the impact of RPE on agents' taking investment decisions relative to competition, DeFond and Park (1992) examined the impact of competitive environment on using RPE and the role of RPE in employees' dismissal decisions, as will be reviewed below.

(2.10) The Study of DeFond & Park (1999) of RPE in competitive environments

DeFond & Park (1999) tested the hypothesis that RPE is useful in CEO dismissal decisions and that RPE is more useful for firms in more competitive industries. According to Dye (1992), in more competitive environments, CEOs are more likely to be subject to similar uncertainties, have more peers and any given CEOs' actions are unlikely to affect other CEOs' out put. The role of RPE in CEO turnover was at the core of the emphasis in that study. If competitive environments are more conducive to the use of RPE, then boards of directors might use RPE to identify and replace poorly performing CEOs.

DeFond & Park (1999) also debated that performance measures that gauge output relative to a peer group benchmark, are more useful in highly competitive environments. By contrast, firm-specific performance targets not relying on comparisons across firms,

should be relatively more useful in less competitive environments. Therefore, DeFond & Park hypothesised that RPE based (firms specific) accounting measures have a stronger association with CEO turnover in high (low) competition industries. Industry competition was measured using the Herfindahl- Hirshman Index.
DeFond & Park identified a sample of CEO changes by performing key-word searches for CEOs dismissal in the Lexis/Nexis and Compustate databases for 1988-1992. A control group consisted of firms that did not change CEOs over the same period thereby they got a sample of 301 CEO turnovers and a control sample of 621 firms. Performance was measured by "market-adjusted stock return" which was calculated as the stock return minus the return on the equal-weighted portfolio of all sample firms. The accounting measure of performance was return on assets. Data were processed on a multivariate analysis. The analysis revealed that the frequency of CEO's turnover is greater in high-competition industries. The Researchers interpret that result as one that could have resulted from managers dealing with stress of competition. However Canyon & Gregg considered that this association only presented indirect evidence on the use of RPE.

It was also found that an RPE accounting based (comparing to firm specific measures) was significantly associated with CEO turnover, in high (low) competitive industries. This suggested that RPE could help in CEO dismissal decisions. The study contributed to the literature of RPE in several ways. Firstly, finding that RPE was used in CEO-termination decisions in high-competition industries suggests that the mixed results on RPE in prior research maybe due to the omission of factors related to competition. The study pointed to some issues for future research such as examining whether low competition industries would base RPE on company-specific measures (run RPE inside the firm) and whether divisional turnover would be affected by compensation.

Choudhury (1986) studied RPE while investigating the relevance of the controllability concept in management accounting. Choudhury (1986) argued that inter-divisional or incentives based on inter-firm comparisons imply a violation of the controllability principle. Emphasising relative performance introduces uncertainty into a risk-averse manager's performance. However, some of the advantages of performance comparison, exists in the additional information about manager's effort and isolating the effects of common uncertainty (i.e. the uncertainty effects that are correlated). Another benefit of

RPE is that, it enables the manager's reward to adjust automatically to changes in economic environment. This is unlike the fixed formula incentives which would allow the executive a reward for a 5% rise in the company's net income when the industry achieved a 25% rise and the executive should be penalised. Choudhury (1986) concluded that RPE would cause some risk to managers in the form of variable income. Meanwhile, it would provide a better indication of managerial effort only where group cohesiveness was low. Villadsen (1995) also concluded that a contract that utilise the agent's co-operative behaviour dictates less RPE than does a non-co-operative contract or a contract that ensures that employees do not co-operate.

Summary

This chapter included a review of the literature of RPE. Since Holmstrom (1982) introduced the basic model of RPE, a series of studies have followed, marked by economic orientation and framed within the agency theory. The main inquiry in these studies was whether employees' (especially top management) rewards were built upon comparing their performance to that of their peers. The investigation was -mainly- based on statistical analysis of published data about company's performance and director' remuneration with few exceptions, Fredrickson (1992) and Chow and Haddad (1990) conducted experiment studies and Maher (1987) used case study research. Various measures have been used, most commonly was return on shareholder's equity and rewards plus shares options.

The chapter revealed that the studies about RPE came to divergent conclusions regarding any impact of RPE on performance. At one extreme, Gibbons and Murphy (1990) and Fredrickson (1992) found strong evidence that RPE motivated executives to exert effort. At the another extreme, Chow and Haddad (1991) reluctantly suggest a contribution by RPE in motivating employees because of the weak evidence they found. Between the two extremes, Kunckel and Magee (1984) found evidence in some industries and with specific measures but not with others and in overall, they had inconsistent results that can not be used to generalise a specific trend of RPE's potential. Maher's (1987) case study researched the actual practices of RPE in five organisations belong to different industries. The study added to the literature of RPE an exploration of issues such as for which managerial level RPE was used, for what purposes, in which organisational environment (central, decentralised, diverse, less diverse.... etc).

It is worth stating here that there is no intention in this research to analyse, interpret or investigate reasons behind these contrasting results nor will there be a replication of any of these studies. Alternatively, the critical analysis of these studies -in the next chapter- will be used (along with a review of the accounting handling of the performance phenomenon done in chapter one) as the foundation for developing the research's own arguments, methodology and research design. The following chapter will provide a critical review of the studies which have been introduced in this chapter. This critical review will be one of the foundations of developing the research's arguments.

Table (2-1)

Comparison among the studies of the RPE according to the research method and questions

	The Study	Research Method	Basic Question	Points of concern
1.	Holmstorm 1982	Theoretical presentation	• Are the agents paid according to their comparative performance	• Pay and benchmark • Role of competing, filtering uncertainty
2.	Kunckel & Magee 1984	Empirical	• Holmstrom's • What are the aspects of the peer group in the comparison? • Are there differences among industries in practising the RPE.	• Holmstrom's • Nature and power of the relationship with peers.
3.	Antle & Smith 1986	Empirical	• Holmstrom's • Who are the peers (industry or market)? • How RPE is implemented?	• Holmstorm's • Differences between industry and market benchmark. • Accounting measures • Total compensation
4.	Fredrickson 1992	Experimental	• Holmstrom's • What are the effects of the degree of uncertainty?	• Behavior and economic interpretations. • Uncertainty and effort
5.	Maher 1987	Field study	• Is and how RPE implemented ? • How organisation's characteristics affects that?	• Differences as to managerial levels, measurements.
6.	Chow & Haddad 1991	Experimental	• What is the influence of RPE on selecting projects and on under different degrees of uncertainty	• Risk aversion and resource allocation
7.	Dye 1992	Empirical	• What is the influence on selecting projects and on the principal's utility	• Agents' and peers' information about performance and investment.
8.	Gibbons & Murphy 1992	Empirical	• Holmstrom's • What influence can peers have? • Does RPE affect agents turnover?	• Correlation with peers • Industry and market benchmark • RPE and total compensation • Costs and benefits of RPE
9.	Conyon & Gregg (1994)	Empirical	• To what extent executive compensation is justified by company's performance.	• Use of RPE • Role of signals like debt holding, acquisitive behavior and union

			• What was the importance of company specific information available to shareholders in conditioning executives pay	presence in revealing the extent to which corporate performance in due to managerial effort.
10.	DeFond & Park (1999)	Empirical	• Whether RPE is useful in CEO dismissal decisions in more competitive industries. • RPE based on accounting measures (Compared to company specific measures) have stronger association with CEO turnover in high (comparing to low) competition industries.	• RPE's ability to improve boards of director's ability to identify unfit CEOs . • Impact of competition on the usefulness of RPE.

Table (2-2)

Comparison among the studies of the RPE according to the data and measurements:

	The Study	Data	Measures of firm's performance	Measures of peers performance	Compensationn
1.	Kunkel & Magee	86 firms in 7 industries (1970-1980)	Change in return on equity	Average measure of firms	Change in salary and bonus without stock options
2.	Antle & Smith	39 firms in industries	Return on common stock and return on assets	Average measure of firms	Total salary, bonus, stock holdings and benefits
3.	Fredrickson	36 participants	Number of the units produced	Average measure of participants	Scores for units produced converted into money
4.	Maher	5 big firms in various industries	Mixed, Financial Targets, production and sales volume	Mixed	Not mentioned
5.	Chow & Haddad	47 participants	Projects outcomes (given)	Average of individuals	Project's outcome converted into money
6.	Gibbons & Murphy	1047 firms (1975-1986)	Change in rate of return on stock	Rate of return weighted by value of portfolio	Basic and total compensation
7.	Conyon & Gregg (1994)	558 firms in various industries (1985-1990)	• Change in sales growth • Change in shareholder return	Average of measures of firms	Change in total pay including bonuses but not share options
8.	DeFond & Park (1999)	301 firms in various industries (1988-1992)	Return on assets and market – adjusted stock return	Median of firms measure.	Not measured, instead data about CEO's turnover Were collected

Table (2-3)

Comparison among the studies of the RPE according to their findings:

	The Study	Kind of support to the RPE	Findings	Unanswered questions
1.	Holmstrom	Strong support	• Optimal sharing rule depends on agent's action and his peers'. • Peers group filter risk from agent's performance	• How to be tested
2.	Frederickson	Strong support	• Effort increases under RPE as uncertainty increases • Filtering risk	• Why effort increases as uncertainty increases. • What is (type) of correlation between firm and peers? • What is the influence of competition on RPE
3.	Maher	Strong in some firms	In general, there is a support for the RPE but with differences in interfim, intrafirm, measures, characteristic and uses	• Why meeting financial targets increase risk and reduce RPE • Why diversity, centralisation and etc encourages the use of RPE in some firms. • What is the influence competition
4.	Gibbons & Murphy	Strong support	• Executive are paid (in basic or total) as to their performance and that of their peers. • RPE filters risk. • RPE's costs benefits affect its has. • RPE affects turnover of employees.	• How cost and benefits of RPE can be measured. • How they affect RPE • Why and how agents can affect peers
5.	Antle & Smith	Inconsistent results	• Some relation between industry (not market) performance and employees' performance. • Filtering risk.	• Why different measures lead to different results. • Why RPE is inconsistent between industry and market.
6.	Chow & Haddad	Qualified result	If supported by other studies, RPE could encourage agents to invest in risky projects under high uncertainty	Testing hypotheses on real data.
7.	Kunkel & Magee	Inconsistent result	In some firms there was a relation between rewarding and industry performance varying in nature and power.	What factors encourage the use of RPE in industries and not in others
8.	Dye	Inconsistent	RPE could encourage agents	• How the characteristics of

		results	to invest in projects where their relative performance is higher as to their information about investments, number of projects, competitors and talents.	the firm, market, dealers and strategies could affect the use of RPE. • What if the firm or the manager invest in many industries.
9.	Conyon & Gregg (1994)	Strong	• RPE was taken into account in executives pay. • The previous relationship existed with growth in sales but not with shareholder return. • Lower cash holdings, reduced union presence and take over discussions were related to high pay for executives	• Why there is an association between RPE & growth in sales (accounting management) but not shareholder return (market measure)? • Are there any company specific characteristics which riser the use of RPE? • Are the take-over (and other managerial) decision used to achieve top management goals or shareholders goals?
10.	Defond & Park (1999)	Strong	• Frequency of CEO turnover is greater in highly competitive industries. • RPE-based accounting management (compare to firm specific) accounting management are more closely associated to CEO turnover in high competition industries.	• Would low competition companies base RPE on company-specific measure. • Divisional turnover and compensation.

Chapter Three

A Critical Review for the Literature of Relative Performance Evaluation

Chapter two included a presentation of the studies of RPE. Holmstrom (1982) introduced the basic model of RPE framed by agency theory and focused on the informational value of the peers' performance indicator in detecting the effort of the employees and a series of studies followed. These studies used different measures for performance and for rewards, the majority of them used statistical analysis of published data and reached contradictory results. Gibbons and Murphy (1990) and Frerickson (1992) found strong evidence that RPE enhanced performance. Kunckel and Magee (1984) found some evidence on that in some industries but not in others while Antle and Smith (1986) found it with specific measures but others. Chow and Haddad (1991) stated that if their results could be supported by other research, then they could suggest that RPE impacted managers when making investment decisions, the same argument was strongly supported by Dye (1992).

While the previous chapter provides a wide review of the literature of RPE, the aim of this chapter is to identify gaps, contradictions or omitted factors in that literature, which might affect the potential of RPE as a basis for developing the research's arguments. In order to fulfil this basic objective, is chapter provides a critical review of the previous studies of RPE that have been contributed by different disciplines such as economics, behavioural sciences and accounting. The orientation adopted in this chapter is to expose both the theoretical and operational elements of each study to refutation. Methodologically, the theoretical assumption behind each study, the questions and the gaps left will be reviewed. Operationally, the choice of the research tools in terms of the research mode (survey, case study or analysis of published data), the choice of the variables; measurements, sample, time span and data analysis are examined. It should be mentioned that, it is not the objective of this critical study to investigate reasons behind contradictions in the literature nor to reconcile the divergent results but rather to develop this research's arguments.

(3.0) Introduction

As mentioned in chapter two, different studies reached different results concerning relative performance evaluation. Therefore, the aim of this chapter is to provide a critical analysis of these studies in terms of theoretical and empirical aspects. The line of enquiry which will be followed, depends on Janakirman et. al., (1992). Janakirman et.al. (1992) referred the failure in supporting the main hypothesis of a study to one or more of the following reasons:

1- The hypothesis is wrong.

2- The hypothesis is correct but it has been tested by a wrong or irrelevant model.

3- The hypothesis and the model are correct but the measures used are wrong or irrelevant.

4-The analysis is influenced by omitted factors.

Following this reasoning, the discrepancies in the research findings of RPE could stem from one or more of the following:

1- Using different theoretical backgrounds as framework for the analysis.

2- The hypothesis that allowing rewards on the performance could have a motivational role is wrong.

3- Research method is wrong.

4- The regression model adopted for testing a hypothesis is irrelevant.

5- Measures of performance are wrong or irrelevant.

6-Measures of managerial compensation are wrong or irrelevant.

7- There are omitted factors in the analysis.

These elements will be respectively discussed in the following sections.

(3.1) The Theoretical Backgrounds of the literature of Relative Performance Evaluation:

The studies of relative performance evaluation were presented within the framework of agency theory based on the neo-classical economic theory. The theory assumes that the economic behaviour of individuals and firms, aim at maximising economic utility. It also assumes perfect markets as well as complete and certain information. This behaviour of the decision-maker is facilitated by the personality characteristic of complete rationality. The individual so described is entirely motivated by economic forces and will not work except in response to sufficient economic incentives. This assumes that the individual was essentially "lazy" and rather preferred to minimise his work effort (Scapens 1984). Caplan (1978) stated that information systems should motivate individuals to join and contribute to the accomplishment of the company's goals so that the personal objectives would be satisfied. The personal goals include social, psychological as well as economic considerations. Thus, the neo-classical economic theory presents a normative and descriptive view for modelling economic behaviour.

The assumptions of the neo-classical economists have been subject to a long and continuous debate in the literature. The following section will offer a discussion about the consistency of the assumptions of neo-classical economic theory with relative performance evaluation.

(1) -The Assumption of Rationality of Economic Behaviour

The notion of rationality has been widely discussed in the literature. Simon (1979) considered that rationality allows the predicting of human behaviour to maximise utility. Nevertheless, determining the "maximum" is a problem. Mathematical models were proposed to solve this problem. In doing so, these models simplified reality by dropping some of its characteristics. The neo-classicalists who considered any deviation from reality as "irrationality", do not accept some aspects of reality in mathematical models. Thus, it is a cyclical argument. What is "rational"? It is the "maximum". How can it be measured? By oversimplifying reality. But this is "irrational". Thus, Simon suggested unattainable optimisation to be sacrificed for an attainable satisfaction in practice. Instead of abstracted, optimal, global goals, tangible sub-goals should be replaced so that the achievement can be observed and measured. Thus Simon (1979) introduced the concept of " bounded rationality". This idea implies a search for decision alternatives, a replacement of optimisation by satisfying goals, and a mechanism for learning and adaptation. Caplan (1978) argued that under uncertainty, rational behaviour is questionable and economic models could lead to inconsistent or inadequate handling because of changes over time.

It could be argued that when examining RPE in the light of the idea of rationality (the behaviour of "maximising"), a major contradiction could emerge. The mechanism of RPE leads to rewarding managers according to their "actual" performance compared with the "actual" performance of their peers. Therefore, the basis of compensation is the real, actual and measurable outcome; it is neither an optimal nor a maximum outcome. If RPE were introduced within the neo-classical background, there would be a contrast in the components of the control system. The philosophy upon which the system is based would be "maximisation". This would be inconsistent with the technique which handles "actualities", whereas a technique is supposed to carry out the system's philosophy.

Thus, the notion of "maximising" is inconsistent with RPE. Alternatively, the idea of "satisfying" seems more relevant and consistent with RPE when it is used either in setting targets or in evaluating performance. The criterion for satisfaction would be the performance of the peers, which is a determined, measurable and likely attainable yardstick.

(2) The assumption of economic utility as a sole objective for behaviour

As discussed above, by contrast with neo-classical economics, the economic utility might not be the sole drive for employees' behaviour. Making profit might not be the sole drive for the firm as well. Kaplan (1994, b), debated that companies have different goals (e.g. customer satisfaction, higher quality or satisfied employees). Such objectives should be specified and should be reflected through the performance measurement system.

Otley (1995) argued that performance is multifaceted and can not be reduced to simple and quantitative measures (often accounting based). Such weaknesses create an inherent unfairness in these systems. These systems are dominated by short-run and narrowly based measures therefore; they become less valid over time and in competitive environments. Kaplan (1984, b) emphasised the importance of non-financial measures in addition to the financial ones. He argues that even granting that the objective of a division should be to maximise long-term profits, this does not imply that an annual profit is the best short-term profit indicator of how well the division is proceeding along a long term -profit maximising path. Other measures, such as product innovation, product leadership, employee skills or customer loyalty may be much better indicators of future profitability than annual profits. It is unlikely that any single measure can both summarise the economic events affecting a company or a division during a period of time and serve as a basis for motivating and evaluating managers. Therefore, multiple performance indicators may improve the motivation and evaluation of divisional performance. The idea that profit is a natural by- product of doing something well and not an end itself is also almost universal. There is rarely a single objective that subsumes all others. Even profitability has to be assessed in terms of its short and long term components and in relation with growth, capital structure and liquidity. Once some overall objectives have been established, they have to be broken down into subsidiary goals that relate to different matters such as product range, quality, market segmentation, customer service and so on. Although some aspects of good performance can be quantified, many other aspects can not. Even if performance is well quantified, the means by which it is achieved may not be clearly understood.

Therefore, it could be concluded that managers' accountability and rewards should be based on measures for different aspects of performance.

(3) The behavioural assumption of individuals' attitude toward work

Ezzamel and Hart (1987) considered it to be the classical view of control to assert that man is naturally lazy and wasteful and that appropriate behaviour can be bought by money. The formal reward structure is an essential element of the classic control package. This presumption forms the basis of the economic analysis of agency theory. On the other hand, the focus of the richer social and psychological aspects of organisations that Ezzamel and Hart (1987) discuss, has been the hallmark of neo-classical organisational researchers. Thus, principles of specialisation, hierarchy and impersonality are held to frustrate individual needs for autonomy, responsibility and self-actualisation. Effective performance could be obtained only when tasks are made intrinsically stimulating and rewarding. Caplan (1978) suggested that information systems should help in motivating individuals to join and contribute to the accomplishment of organisation's objectives. This should be done through satisfying the individuals' personal goals. These personal goals include social and psychological, as well as economic considerations.

RPE technique contradicts with that assumption. RPE is built on the theories of social comparison, which argues that the presence of others may trigger a variety of activities related to behaviour. Ferris & Mitchell (1987) elaborated that the more important the other(s) are to an individual, the more likely he/she is to engage in cognitive activity and information processing. Young (1985) stated that the mechanism of social pressure in motivation depends on dissatisfaction that a subordinate is likely to feel; if his or her superior views him/her as a shirking member in the organisation. Rather, this assumes that the employee finds some utility in being viewed as a hard working individual and is therefore willing to exchange some distasteful effort to gain that utility.

Hence, the assumption of work aversion is inconsistent with the normative theory of RPE which was framed by agency theory.

(4) The assumption of efficient market and perfect information

Caplan (1978) considered that the efficiency and effectiveness of human behaviour and decision-making is limited by the following constraints: (1) the inability to concentrate on more than a few things at a time. (2) Limited awareness of the environment (3) limited knowledge of alternative courses of action and their consequence (4) limited reasoning ability and (5) incomplete and inconsistent preference systems. As a result of these limits on human rationality, individual and organisational behaviour is usually directed at attempts to find satisfactory - rather than optimal- solutions.

In addition to the impracticality of the notions of "perfect market" and "perfect information", there are much evidence that they do not apply to RPE. For instance, the employer has limited knowledge of his employee's effort, actions and decisions but he expects to deduce it through comparison with peers. The employee also does not know how his/her peers will act, competitively or co-operatively and how much their output may be. Therefore, the assumption under RPE is that he/she would do his/her best to outperform peers and attain the reward. This is different from the assumptions of the efficient market. Under RPE, the employees' perception and acceptance of the peers is expected to affect his/her performance, regardless of who those peers are and how many of them there. The peers are –usually- a limited number of rivals in the market chosen by the designers of RPE system.

(3.2) The Main Hypothesis in the Studies of RPE

The basic hypothesis for the studies of RPE is built on the idea of "benchmarking" which predicts that comparing employee's performance to that of his/her peers' could motivate him or her to improve his/her performance and rewards are set accordingly. Benchmarking has received a lot of attention and continuous debate in the literature. So reviewing the debate of linking pay to performance (either absolute or relative) will be the starting point in the discussion.

Emmanuel et.al., (1990, p: 375) considered that performance targets could be effective only to the extent that managers perceive desirable rewards flowing from achievement (or penalties from lack of achievement). These mechanisms can range from the encouragement of cohesive peer groups (characteristics of the Japanese style of management) to explicit linking of substantial monetary rewards to targets attainment (most prevalent in the USA, but also inherent in all types of incentives payment schemes). It should be noted that using performance-related pay systems seems to be most easily accomplished at the top and the bottom organisational levels, through share-option plans at the top or profit-sharing schemes at the bottom. Difficulties in implementing it at middle management levels referred to difficulties in establishing suitable targets in an objective and reliable manner.

Kaplan (1984 (b), p: 578) specified a possible defect of pay-performance schemes is that general business conditions or specific industry factors could cause earnings to expand or to contract for reasons not controllable by company executives. This could mean either "windfall" gains or losses for executives. One way to reduce the impact of non controllable factors is to compare a company's performance to that of others in the same industry. Nevertheless, firms have become increasingly diversified; so that it may not always be easy to define the " industry" to which the firm belongs and consequently it is difficult to identify a comparable group for the benchmarking. In that case, even a comparison with a national average of corporate earnings or with a sample of industries would provide a better comparison of relative firm performance than simple, absolute year-to-year comparisons of the firm with itself.

In a survey by Vancil (1979) annual bonuses were received by 90% of the managers based on current financial performance. From a total of 282 profit centre managers, 30% believed that the bonus was determined solely by financial performance and a further 35% believed that it to be partly determined in that way. The annual bonus also seemed to comprise a significant part of the managers' income, about 25% of the annual salary.

Emmanuel et.al., (1990), considered that a limited empirical evidence was available about the importance of financial performance measures in structuring rewards of divisional managers in the USA and less well documented evidence in the UK.

Unlike Emmanuel, Murlis (1988, p: 268) reported that during the late 1980s, the UK witnessed an increasing trend to include a performance-related element into the remuneration package of middle managers. In June 1988 the Income Data Service in the UK reported that 50% of manufacturing organisations and 40% of service organisations had some form of performance-related pay scheme.

In addition to the practical evidence from the USA and the UK, Merchant et al., (1990) in his case study in the Italian cars company "Fiat", found performance- based incentives constitute an important part of the company's restructuring process. Fiat offers managers three types of monetary performance based rewards: salary increases, annual bonuses awarded through a formal Management-By-Objectives programme (the most significant part of the performance-based incentives system) and occasional bonuses awarded on a discretionary basis.

It could be concluded from the previous discussion that:

There is academic and practical support for a link between management pay and performance. However, further investigation to explore companies' actual practices and factors affect, is needed. Among the factors that can be examined are, type of industry, managerial levels, organisational goals and consequences upon employees' satisfaction, effort and turnover.

Hence, the basic assumption of the previous studies of RPE was that it could motivate employees to improve their performance. That assumption has been founded on theoretical and practical grounds to justify it. Hence, the basic hypothesis of RPE seems appropriate. However, the hypothesis about motivational role has not been explicitly and directly tested in the previous studies. The aim in this research is to examine the motivational role of RPE, to what extent money and esteem are complementary (or competitive) drives behind the response to RPE, in that circumstances and at what managerial level/s.

(3.3) The Research Methods Used in the Studies of RPE

According to Brown (1995, p: 26), an experimental study deliberately divorces a phenomenon from its context so that attention can be focused on a few variables, controlled by a laboratory environment. Surveys attempt to deal with both the phenomenon and its context. However, because of their practical method, they have limited ability to investigate the context. A case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life context. This occurs when the boundaries between phenomenon and context are not clearly evident and multiple sources of evidence are used.

In chapter two, the review of the studies of RPE showed that almost all the research was conducted by empirical studies on published data. They attempted to investigate whether managers were rewarded according to their performance compared to their peers and what could affect it. The way they tested it was to infer a relationship between managers' remuneration and their performance and their peers' through detecting a relationship between the variables using a regression model.

In spite of using the same research method (empirical study) different studies ended up with different conclusions. Magee and Kunckel (1984), Antle and Smith (1986), Lambert et.al. (1993), Gibbons and Murphy (1990), Conyon and Gregg (1994), and DeFond and Park (1999), all used empirical studies but only Gibbons and Murphy (1990), Conyon and Gregg (1994), and Lambert et. al., (1993) found support for using RPE in setting rewards. The rest could not come to a reliable result. Gibbons and Murphy (1990) results were criticised by Janakirman et. al., (1992) for testing a weak assumption of RPE which supposes a linear relationship between pay and relative performance. Lambert et. al., (1993) tested a certain role of RPE in taking promotion decisions. Conyon and Gregg (1994) found a relationship between executives' pay and relative performance when it is measured by sales growth but not by stock returns.

Among the researchers who studied RPE, only Maher (1987) used a field study. He found strong evidence for implementing RPE in many, large, multi-activities companies belonged to many industries. He also recognised some organisational and environmental factors that influence RPE as detailed in chapter two. Dye (1992) used a numerical example to test the role of RPE in project's selection, so his results should be considered carefully and need further examination on real data.

Fredrickson (1992) and Chow et. al., (1991) ran experimental studies, but the former found a strong relationship between RPE and performance while the latter gives a very reluctant suggestion about a role of RPE in promoting performance. Here there are contradictory results although Fredrickson (1992) studied RPE's motivational role when taking production decisions and under different degrees of uncertainty. On the other hand, Chow et. al., (1991) examined the role of RPE on investment decisions in risky projects. Thus, the same research "experimental" method led to different results.

According to Brown (1995), if the aim of the study is to explore the phenomenon and its context, the empirical study (that is, using actual data to test arguments by mathematical models) looks stronger than the experimental and weaker than the field study. If the purpose of the enquiry is to research the reality of a phenomenon and its practice, the field study can be used for that purpose. Such a study can detect whether and how firms implement RPE, what requirements are needed, what factors affect and what consequences result. In such cases where, a new formulation or hypothesis is to be tested, with the sensitivity of the model to certain variables or a new factor in the analysis, empirical studies seem more suitable.

As the aim of this research is to test whether there is a motivational role for RPE, for impacts of financial and non-financial measures, different peers and reward then exploring the actual practices of performance and rewards, either survey or case study can be regarded as suitable research methods. It is suggested that many contingent factors could be tested such as: uncertainty, competition, diversity of products and markets of work, managerial levels ...etc.

(3.4) The Models Used in the Literature of Relative Performance Evaluation

As chapter two and the earlier discussion in this chapter revealed, all empirical studies tested RPE via correlation and regression models. They attempted to infer a relationship between managerial remuneration and firm and peers' performances and predict its shape. The use of correlation and regression models in those studies seems to fit their objectives. Finding a statistical correlation between the variables was suitable to conclude that there was a link between pay and recognition of peers' performance. The statistics textbooks explain that regression provides an estimation of the relationship between the variables (e.g. between compensation and relative performance). It allows the including of more than one independent variables (e.g. relative performance measure and absolute performance measure in Kunckel and Magee (1984) and relative performance and employees turn over in Gibbons and Murphy (1990) study or market measure and accounting measure in Antle and Smith (1986). Here, regression parameters indicate an overall influence which the set of independent variables (e.g. both the relative and the absolute performance measure or different group of peers) practise on the dependent variables (employees' remuneration). Regression parameters can also show the contribution of each individual variable (e.g. within the set of performance measures: how much the relative performance individually affects RPE) in the set of independent variables in the change in the dependent variable. Also results from the regression, the determination coefficient which describes the percentage of variability in the dependent variable due to one unit change in the independent variable. The regression model also estimates the probable error involved. These tests can be conducted at various significance intervals, which makes the results reliable. Thus, correlation and regression models were appropriate.

(3.5) The Used Data in the Studies of the RPE

In addition to adopting different research methods, the studies of RPE depended on data which differ in content, size, and the time-span that they cover as shown in the following table:

Table (3-1) Comparison between the studies of RPE

The Study	The Size of the Sample	Research Method	Time Span	Source of Information	Research Findings
1- Kuncel & Magee 1984	86 firms in 7 industries	empirical	1970-1980	published data	Inconsistent, RPE is used in some companies, with some measures but not in others
2-Antle& Smith 1986	39 firms in 3 industries	empirical	1947-1977	published data	Inconsistent, as Kunckel ad Magee
3-Gibbons& Murphy 1990	1049 firms	empirical	1974-1986	published data	Executives pay depends on relative performance
4-Fredrickson 1992	36 participant	experimental			RPE determines pay under high uncertainty
5-Chow & Haddad 1991	47 participant	experimental			Reluctant, RPE might encourage taking risky investment decisions
6-Maher 1987	5 firms	case study		the documents of the firms and interviews	Mixed results, RPE used in some, for top and middle management, for planning and rewarding, in less diverse companies.
7-Conyon et.al., 1994	107 firms	empirical	1985-1990	Data Stream International	RPE is used, with specific measures but not others
8-Lambert et.al., 1993	303 firms	empirical	1982-1984	published data	RPE shapes CEOs remuneration and promotion decisions
9-Janakirman et.al.,1992	609 firms	empirical	1970-1988		relative support
10- DeFond & Park 1999	301 firms	empirical	1988-1992	published data	RPE is more useful in competitive environment

There are two elements which will be discussed concerning the data: first the size of the sample used, second the length of the time-span (studies of the same research method will be reviewed together). As appears in the table, with the empirical study (and also the experimental), the bigger the sample, the more support for the use of the RPE is reported. This is consistent with Holmstrom (1982) and Dye (1992) that RPE is suitable for a competitive environment where a large number of peers is available and where the actions of an agent are not likely to affect the actions of other agents. Maher's (1987) case study on 5 big firms operating in many industries, presents strong justified support for using RPE.

The second element concerning the data is the span of time that it covers. The time span, which the studies depended on, ranged from 3 to 30 years. Surprisingly, the study of 3 years found strong support, the 5 years led to fair support but the medium serials of time reported a contradiction in their results. The study of Antle & Smith (1986) pursued pay and performance over 30 year and provided the most puzzling outcome where no consistent result could be reached.

From the previous discussion, it could be concluded that the time-span of data was not an influential factor in mapping the use of RPE. From another point of view, data over a long span of time might have distorted the analysis. Over time, many economic, social and political factors might interfere to shape pay plans. For example, in their case study on "Fiat" company, Merchant et.al., (1990, p:285) noticed that in few years, the managers' salaries have increased at an annual rate of 10-13% because of the terms of the national labour union and the government's procedures in facing inflation. Therefore, it could be concluded that the time-span of data could be neglected in analysing remuneration and performance because no specific span of time was related to a specific finding.

(3.6) The Measures of Managerial Rewards

Vancil (1979, pp: 93-94) distinguished three categories of reward which managers receive. First, managers derive pleasure from managing an entity of their own. Second, they enjoy the power and status that accompanies their position. Third, they earn monetary rewards. These rewards can come in multiple forms, salary, bonus, share options and promotions that yield to higher rewards in the future. Organisations can drive some motivational value from their contracts if they link promises of any of these rewards to measures of performance. For example, corporate managers can threaten to reduce the pleasure of managing entities by refusing to fund ideas for expenditures where performance is not good. They grant managers additional power and increase their status within the firm by publicising their good results. Also they grant additional pecuniary reward in the form of cash, delayed payments of cash and shares.

Emmanuel et. al., (1990) argue that organisations attempt to promise rewards that provide the most cost effective motivational effect, but this is not easy to do because the effects of each of the various reward forms vary depending on the manager's personal preference and circumstances. Some managers are greatly interested in increasing their retirement benefits, expanding their autonomy or improving their promotion possibilities. For example, lower -level managers- compared with top executives- are probably more interested in improving their promotion possibilities and less interested in stability in the short term as long as their basic salary is assured. However, tailoring reward packages to managers' preferences can not be easily achieved and the motivational role of those packages is a controversial matter.

When reviewing the literature of RPE, it was observed that the comprehensiveness of the remuneration package and not its suitability to the managerial level was the issue which has been examined in the previous studies. That is because almost all the previous studies confined the analysis and discussion to the same managerial level, that is, top management or corporate executives.

Maher (1987) did not specify an impact on the remuneration package in his field study. In the empirical studies, Kunckel and Magee (1984) used change in salary and bonus excluding stock option as a package for compensating agents and obtain inconsistent evidence about the impact of RPE on performance. Similarly Antle and Smith (1986) who used a more comprehensive package containing total salary, bonus, stock holdings and benefits, got inconsistent evidence. Gibbons and Murphy (1990) had a strong support for RPE both when basic elements of the compensation package and when a comprehensive one were used. The result of Lambert et. al (1993) agreed with Gibbons and Murphy (1990) in supporting RPE using a total package consisting of base salary, annual bonus, stock options, sharing plans and restricted stock. Conyon and Gregg (1994) used salary and bonuses but not share options and found fair support for RPE when sales growth (not shareholders' return) described managers' performance. So it can be concluded that components of a reward package are not found to have an influence on encouraging the use of RPE.

The next element in the discussion of the difference in research findings of the RPE is the performance measures used.

(3.7) The Performance Measures in the studies of RPE

One of the central issues in the accounting debate about performance measures, is the necessity of measuring both financial and non-financial aspects of performance (Kapan 1984 (a) and (b), 1994, Ezzamel and Hart 1987, Emmanuel et. al., 1990). Emmanuel et.al., (1990) argue that financial performance measures provide quantitative and common indicators of the achievement of the individual divisional managers. Conventionally, it is assumed that they reflect accurately the decision-making capabilities of the divisional managers. Besides, an accurate measurement of actual performance is important if this form of feedback control is to be effective. This assumes that accounting performance measures can help detect inefficiencies and requires managers to be held accountable for them. So top management's use of accounting information may reduce the incentives for opportunistic behaviour by divisional managers.

Emmanuel et.al., (1990) also debate that top management may mistakenly accept accounting measures as accurate indicators of efficiency and may also attempt to instruct lower level managers to seek optimal solutions. In the face of environmental uncertainty, information asymmetry and lack of clear objectives, optimality is an ephemeral concept. Not only could these measures be mistaken, but also even if they are correct, they are not enough to reflect the activities of employees. Objective measures in terms of staff turnover, productivity, customer satisfaction and complaints as well as other non-financial statistics should be reported. Even the costs and revenues associated with a special order will probably be embedded in aggregate data. The timing of the report at the end of the month may make tentative judgements about the relationship between the special order and the financial results difficult to interpret because the events that it refers to, are over and done with.

As chapter two and the earlier discussion of this chapter showed, different measures were used in the studies of RPE and different results were reached. Four observations regarding the performance measures in the studies of RPE can be made. Firstly, the studies were dominated solely by financial measures (e.g. Gibbons and Murphy (1990) and Kunckel and Magee (1984) used the change in return on stock, Antle and Smith (1986) and Lambert et. al., (1993) depended on the return on common stock and return on assets. That was the practice, despite the defects realised in these measures in the literature (Kaplan and Atkinson 1998). A specific feature of incentives based on financial measures mentioned by (Kaplan and Atkinson 1998, p: 676) is that they motivate short-term orientation. Therefore, financial measures should be complemented by non-financial measures such as product quality, customer satisfaction and innovation, which are the drives of future performance.

Secondly, the studies examined RPE using market measures and accounting measures (e.g. Gibbons and Murphy (1990) and Kunckel and Magee (1984) used the change in return on stock and Antle and Smith (1986). Kapan and Atkinson (1998, p: 679) argue that the problem with market measures is the lack of a direct causal relationship between executive actions and stock market performance. Non-controllable random events such as general business conditions, competitors' actions, government actions, unexpected material, energy, or labour shortages, and international developments may overwhelm the best (or worst) efforts of management.

Thirdly, issues such as competition and uncertainty (although examined with relation to RPE itself, see Fumas et.al. 1994 and Fredrickson 1992), have been overlooked when handling performance measures in RPE debate. Hirst (1981) argues that when uncertainty increases, accounting numbers increasingly lose their ability to accurately tell the whole story of performance evaluation.

Therefore, it is suggested in this research that the use of different measures will reflect different aspects of the work and could enhance employees' response to RPE.

Summary

Building upon the presentation of the literature of RPE in the previous chapter, this chapter presents a critical review of the literature of RPE. It identifies many contradictions between the assumptions of agency theory and those of RPE. For example, the individual who could be motivated by RPE, is not self motivated and does not seek to maximise profit, or seeks economic utility only via rational behaviour.

It has also been recognised that the dominating question in the debate around RPE is whether it exists or not in rewarding managers, without questioning its elements, potential, limitations and the organisational, environmental and individual context within which it works.

Regarding the research methods, the dominant instruments are correlation and regression models. They were used to analyse published data of performance and employees remuneration (with two exceptions: the case study method in Maher 1987 and the experiments of Chow et. al. 1990 and Fredrickson 1992). Some reservation have been raised about the impact of the size of samples (which ranged from three years to thirty years) and the time-span of data. Long series of data might contain influences from many factors over time. The measurements -although varied- have been solely in financial terms and some were market based. Market measures were criticised in the literature because incentives do not have a direct relationship with the change in stock price and employees lack controllability over these changes. It is also argued that variables such as uncertainty and competition should be considered in the debate about RPE. The following chapter will use this critical review along with other sources to develop the research's arguments.

Chapter Four

New Arguments in Relative Performance Evaluation:

Links to the Accounting Literature and RPE Practices

Chapter three critically examined the studies of RPE in terms of the research questions, methodology, method, data and findings in order to provide a foundation for developing the arguments to be investigated in this research. It identified many contradictions between agency theory (which was the framework of studying RPE in the previous literature) and the assumptions of RPE. This raises questions about the relevance of agency as a framework of this research and provides an early clue that an alternative framework should be considered. Chapter three also recognised some gaps in the literature such as not questioning the elements of RPE or the motivational assumption of it. This fuel the need to a direct examination for these arguments, the mechanism by which it achieves that, which components and in which context.

The objective of this chapter is to raise further issues about RPE as a basis for focusing the arguments to be examined in this research. There would be three sources for developing these arguments. The first source was the critical review of the literature of RPE and the recognised gaps and contradictions (chapter three). Second the review of the accounting handling of the "performance" phenomenon (chapter one). Third, the UK practice of RPE as found in the publications of different companies. The arguments were organised into three categories. One category focused on arguments about the motivational mechanism of RPE, another about the components of RPE (the peer group, performance measures and reward) and the third category was for the contingents of RPE. It should be clarified here that, the intention in this chapter was to discuss the arguments on which the research's own questions would be focused and examined. This implied that not all the arguments raised here would be addressed in this study. Chapter five would be allocated for the research design and paradigm.

(4.0) Introduction

The previous studies of RPE have been based on neo- classical economics and agency theory as a methodological framework. This has limited the scope of enquiry, the questions and arguments that have been considered. It has also restricted the examination of the factors, variables and aspects that could affect the technique and its outcomes. Consequently, little knowledge has been acquired about the content of the technique (e.g. its items, capabilities, effects) or its context (the environment in which it functions). A review of the literature of RPE revealed discrepancies in results, although they used the same research method, measurements, methodology and the same technique in analysing the data. This suggests the need for an in- depth study for the content and context of RPE in order to explore: its components, consequences and environment. While gaps and discrepancies are the noticeable features in the literature of RPE, complications and variety of patterns and factors are the marked features of the UK practice of RPE. These complications in applying the technique have been overlooked by the literature. Given that there are substantial investments in these packages every year, it is essential to justify the money invested in them through a close study of the package, its design, implementation and consequences.

From a professional stance, different committees (such as Cadbury Code of Best Practice 1992 and Greenbury Committee' report 1995) have invited companies to adopt reward schemes which base compensation on comparative performance (the essence of RPE). They have also kept on disclosing information about the amount and bases of entitlement to these rewards. In the UK, there is a tendency among the major companies to adopt these techniques as long-term reward schemes for top management (as detailed in Appendix A-2). Also there is a noticeable increase in the amount of details released about employee's remuneration in general and the remuneration of senior management in particular. The Institute of Management and Labour Relations in the USA has provided the academic orientation in this debate in its special forum about Managerial Compensation and Firm Performance in 1996.

The purpose of this chapter involves a wider investigation of RPE as a control system. It attempts to open a discussion about the content of this reward scheme. This chapter is organised into three parts: the first discusses the sources of developing the new arguments. The second presents further arguments about RPE. The last part provides a review of pay practices in UK companies.

(4.1) Part one: Sources for further arguments in RPE

The arguments introduced in this chapter stemmed from various sources. The first concerns the discrepancies in the literature of RPE. The second refers the complications in the practice of RPE that have not been addressed in the literature of RPE. The third is the invitations by The Academy of Management regarding the research methods and methodology in pay and performance. The fourth is the attitude whereby the relevance/ ability/ consequences of handling RPE within an economic framework is questioned and finally the desire to discuss the link between RPE and the accounting literature of performance. These sources will be discussed respectively in the next section.

(4.1.1) ***The discrepancies in the literature of RPE:***
Holmstrom (1982) investigated whether agents are paid upon their performance compared to their peers or not. He used a theoretical framework derived from agency theory and focused on the value of information which the peers' performance item will held. Apparently Holmstrom focused on the monitoring role of RPE but he did not test his argument empirically.

Knuckel and Magee (1984) used an empirical study and the statistical correlation proved there was a correlation between the pay and comparative performance in some industries but not in others (in total no consistent result). Knuckel and Magee (1984) did not explain this result. Using the same research method, the same sources of data and models of Knuckel and Magee (1984) -but different measures- Antle and Smith (1986) addressed the same question. They found a relationship between industry performance and employees' performance and not when market measure was used. While Gibbons & Murphy (1990) found RPE was considered in directors' pay and it was a cost- efficient system but with no effect on the employees turnover. The examples and the details in chapters two and three raise the following question: why did different measures lead to different results?

Maher (1987) was the only one who approached the debate by a case study research. In general, he found support for RPE in the companies. Some interesting questions arose from his findings, e.g. why meeting the financial targets increased risk and decreased the chance of applying RPE, why diversity and centralisation ...etc encourage the use of RPE, what is the influence of competition on RPE.

Chow and Haddad (1991) conducted an experiment to test the influence of RPE on selecting investment projects under different levels of uncertainty. Chow and Haddad (1991) "reluctantly" reported -if supported by other research- their conclusion was: RPE could encourage managers' to invest in risky projects. Given that there is an increasing number of companies applying RPE, there is a need to test this argument in real situations. Similar to Chow and Haddad (1991) Fredrickson (1992) conducted an experiment to test the same debate with 36 participants. He reported that effort increases under RPE contract as uncertainty increases. The question is why effort increases, in which environment and whose effort?

The conclusion from this brief review is that, the dominant research method has been based on empirical tests using published data with two exceptions (2 experiments and 1 case study). No inquiries have been directed to the employees who are rewarded by these schemes or to the designers of these packages. The model of analysing data has been confined to statistical correlation (and sometimes regression). The scope of inquiry has been limited to mainly investigating whether RPE is used or not, the proposed motivational role of RPE has been taken for granted. Also, the anticipated drives behind the change in behaviour due to RPE (i.e. money and esteem suggested by Fredrickson) have not been tested, to what extent they will continue to affect behaviour and whether they work on a complementary or competitive basis. Adopting an economic perspective in the previous research has limited the scope of investigation as discussed in the following section.

(4.1.2) *Limitation of the economic perspective when handling RPE:*

The basic model of RPE by Holmstrom 1982 and the following studies have been framed -explicitly or implicitly- by agency theory (Kunckel and Magee 1986, Antle and Smith 1987, Gibbons and Murphy 1990, Maher 1987, Dye 1992, Janakirman et.al. 1992 and Conyon and Gregg 1994). In spite of this dominance, agency theory has been criticised for its limitations (e.g., Scapens 1984) such as, focusing on single-period, assuming utility maximising behaviour and economic rationality. Merchant (1986) records that agency models cover some factors such as attitudes towards risk, degree of asymmetry and ignores differences in organisation strategy, structure, technology, culture and leadership style and innovation as well (Kaplan 1984).

In addition to these limitations (discussed in chapter three, p: 59-62) a question is raised about whether the assumptions of agency theory contradict those of RPE. In RPE, a manager is expected to be interested in gaining social esteem and hence it does not seem to be his/her sole objective (nor it is to his/her company) to gain profit. His/her performance will not be matched to the "maximum" unmeasurable level. Under RPE, an employee will be reviewed according to realistic and measurable yardstick. Both financial and non-financial goals and measures are involved, for him/her and for their company. These issues have been discussed in detail in chapter three of this thesis.

(4.1.3) ***The complications in using RPE in UK companies***

Table (1) below summarises a sample of the major UK companies that had RPE schemes as extracted from the Company Reporting Publications (1993-1999) and the companies' annual reports (details of this practice and a comparison is provided in Appendix A-2). Discussion and observations are developed below building upon that data.

Table (4-1) A Comparison among the UK companies about RPE

(Source: Company Reporting Publications 1993- 1999)

company	type of target	who to compare with	comparison criteria	performance measures	forms of pay
United Utilities	scale	FTSE 100	to be among top 25, top 50 or below 50	total shareholder's return	cash and shares
Pearson	one level	FTSE 100	outperform average FTSE 100	total shareholder's return	shares
Community hospitals	one level	FTSE 500 non financial	equal or exceed FTSE 500 non financial	growth in share price	Not mentioned
Bass	scale of targets	10 selected competitors	ranking, positioning	total shareholder's return	Not mentioned
Lucas	one level	Retail price index	at least exceeds 10% the growth in FTSE 100 index over 3 years	earnings per share	shares
Nat West	one level	FTSE 100	compare movements in share price	movements in share price	Not mentioned
Reuters	scale	FTSE 100	all shares if among top 40, nothing if last 25, a scale in between	total shareholder's return	shares
BOC	one level	FTSE 100 index	outperform FTSE 100	share price	shares
Dixons	scale	17 leading retail companies	specific amount of shares if Dixons 1,2 or 3 rank reduced to the 1/10 if 12 and nothing if below 12	total shareholder's return	shares

A review of the company reporting publications over the period 1994- 1999, show that 17 companies belonging to 15 industries are found to adopt the relative performance evaluation. Table (4-2) provides names, type of activity and the year in which RPE was applied in these companies.

Table (4-2) List of some UK companies that implement RPE:

	Company's name	Type of activity	Year RPE scheme began
1	The British Petroleum	Oil & its integrated products	1996
2	Yorkshire Electricity*	Electricity	1995
3	Dixons	Retail and chain stores	1994
4	British Telecommunications	Telecommunications	1995
5	National Westminster	Financial services	1994,1995
6	Lucas Industries	Technology systems and car parts	1995
7	Rank Organisation	Holidays and Leisure	1996
8	The Berkeley Group	Construction	1996
9	Pearson Group	Publishing	1994,1996
10	Cookson Group	Industrial Products	1996
11	Glaxo	Pharmaceuticals Research	1994,1995
12	Community Hospitals Group	Health Care	1994
13	United Utilities	Electricity Supply, gas, water, communications	1995
14	Royal Insurance	insurance and financial transactions	1994
15	Bass Group	Hotels and restaurants	1996
16	The BOC Group	Chemicals and health care	1995
17	Courtaulds	chemicals	1994
18	Reuters Holdings	Media and financial transactions	1994,1995

* Yorkshire Electricity stopped using RPE schemes after it was taken over by American company in 1997 as detailed in the research design- chapter 5, page 128 in this thesis).

The table above shows how various companies from different industries have different period of experiences with the technique. The importance of this is that it provides a chance to trace certain consequences of RPE over time, such as the continuity of the motivational role of RPE, any learning from experience, what elements encourage or discourage companies to adopt or abandon RPE.

Cadbury Code of Best Practice (1992) recommended that the factors included in calculating pay as " the basis on which performance is measured should be explained". Many companies explain bonus payments by their chosen factors. *Asda, Tate& Lyle* and *Trafalgar House* disclose that bonus is dependent on results. *Tate & Lyle* disclose that "bonus is directly related to the results of the group". While *Asda* is more specific in disclosing that bonuses "are based on the Group's sales performance". The huge variety of practices in the objectives behind using RPE, the measurements, peers, rewards, outcomes and experiences have not been examined before in the literature of RPE.

(4.1.4) ***Academic invitations to apply non-conventional research methods in this area.***

When reviewing the literature of RPE, it is noticeable that the dominant research method the USA (Kunckel and Magee 1984, Antle and Smith1986, Gibbons &Murphy 1990, Dye 1992) and the UK (Conyon and Gregg 1994) has been the statistical analysis based on published data of performance and rewards. The test has largely rested on statistical correlation of the association between pay and performance. This narrowness in the research tools in the area of pay and performance in general and RPE in particular has been criticised by The Academy of Management Journal (published by the Institute of Management and Labour relations). This was disclosed in "The institute's Special Research Forum for Managerial Compensation and Firm Performance" in 1996 (as it appears in its "Call For Papers" published in the Academy of Management Journal, 1995; 38; 5, page 1497). The institute sought to improve understanding of what determines managerial pay and how it interacts with internal and external forces to impact on performance. In particular, this forum encouraged novel empirical approaches to the study of managerial pay and firm performance. The main themes of the forum have been stated to be:

(a) International: because almost all previous studies of managerial pay use US data, the forum welcomed "in- depth" studies of individual countries or cross- countries.

(b) Interdisciplinary: because the determinants of managerial pay and its effect on firm performance may be better understood by linking variables and models from different disciplines. As a whole, most of the extant research originated in economics and finance. The forum invited submissions which can bridge two or more disciplines in the debate of compensation and performance.

(c) Innovative methodologies: The institute states that -with few exceptions- investigators examining the antecedents and consequences of managerial pay tend to rely on archival data available in *Compustat, Disclosure* and other similar sources. One problem with the use of these databases is that researchers are constrained by the information available there (e.g. data is reported for the top five executives only). Therefore the institute encouraged submissions that use unconventional data sources and novel methodologies.

(4.1.5) *Linking RPE to the accounting literature of performance.*

RPE is a reward system which -procedurally- consists of selecting peers, measuring, evaluating and rewarding performance. These items are consistent with the dimensions of performance studied in the accounting literature over decades (as discussed in chapter one). The intention in this research is to bridge the components of RPE and the dimensions of performance in the accounting literature. This will sustain the line of enquiry adopted in this research where RPE is analysed as a control system with its various parts: setting targets, measuring output, including a predictive model. In this case, the predictive model would be the motivational theory behind RPE. The final results of the study should indicate some areas where the system might improve.

This section highlighted the main sources for developing further arguments in the debate about RPE. These sources cover various theoretical, practical, academic and professional stances. The following section demonstrates the arguments which emerged from them.

(4.2) Part Two: Further Arguments about RPE

This part presents the new arguments classified into three types: (1) the motivational mechanism of RPE, (2) the components of RPE system and (3) contingency theory and case study as research methodology and methods for studying RPE.

(4.2.1) Arguments about the motivational mechanism of RPE: The predictive part of RPE as a control system

As demonstrated in chapter one, Lyne (1995) discussed the component of control system and reported Otley and Berry (1980) argument that a control system consists of setting targets, measuring output, having a predictive model and corrective actions. Lyne (1995) debated that the most important feature of a predictive control model is to know what motivates individuals to perform at their best and what conditions will encourage high levels of performance. Management accounting writers have used various motivation theories in order to construct a predictive model as part of an accounting control system. The aim of this section is to explore the predictive part of RPE, i.e. the motivational theory behind RPE. This includes two main points: first, discussing whether RPE should be interpreted solely on the theory of social comparisons which the psychological literature provided (Shore et.al. 1992 and Ferris and Mitchell 1987) and accounting writers adopted (e.g. Fredrickson 1992) or whether it can be accommodated within other motivation theories. The second point focuses directly on the predictive ability of RPE. In this point, a discussion raises about the different types of potential behaviour which employees might adopt and whether RPE can interfere to adjust this behaviour to a favourable one.

Fredrickson's study (1992) focused on the behavioural interpretation of RPE. He discussed behavioural theories of the social influences of evaluation, which suggest that fear of others induces effects on employee's behaviour. The theory of social comparison argues that the presence of others may trigger a variety of activities that are related to behaviour (Shore, et.al. 1992). Ferris & Mitchell (1987) consider the more important the others are the more likely the employees are to engage in cognitive activity and information processing. This behavioural effect of RPE is influenced by job similarity and observability as well as the individual's attitude toward the view of the others in his work. Young (1985) states that social pressure can be used to motivate the subordinate to work harder, but the mechanism of this effect depends on the degree of the dissatisfaction that a subordinate is likely to feel about being viewed as a shirker by his or her superior or co- workers. This theory implies that the subordinate finds some utility in being viewed as a hard-working individual and therefore he/she is willing to exchange some distasteful effort for that utility. It should be noted that this is not the only version of social comparisons' theory, as Ezzamel and Watson (1998) reported Festinger's (1957) version of that theory to address market comparisons in setting executives' pay in the UK. According to the theory of social comparison processes developed by Festinger (1957), social actors and decision-makers of all kinds have to rely upon a whole range of social comparisons to secure equity in setting rewards. Festinger noted that individuals have a need to evaluate their abilities. By choosing to compare to those who are perceived to have similar abilities or slightly better expert, they fulfil this need. Festinger's (1957) version differs from that developed by Ferris & Mitchell (1987) in aim, method and potential. In Festinger's, the aim of the social comparison is to secure equity, while in Ferris & Mitchell it is motivation. Festinger states that the domain of comparison is "abilities" as measured by compensation while compensation is how it is appreciated by the owners. Ferris & Mitchell compare "performance" which in one way is the indicator of "how abilities are used rather than what they are". Festinger uses social comparison to satisfy employees' feeling of fairness while Ferris & Mitchell state that social comparisons could provide both rewards and esteem for employees. Festinger -procedurally- compares pay to set subsequent pay, Ferris & Mitchell compare performances to set rewards, which in turn affect subsequent performance.

Ivancevich et.al., (1983) argue that unsatisfied needs lead to frustration which an individual may attempt to reduce. In so doing, his behaviour could be a constructive, defensive, aggressive or projective. The chosen behaviour depends on the strength of needs and the level of aspiration. The behaviour of an employee that has been described in the literature of RPE could be constructed as constructive behaviour, where one endeavours to cope with the norms and values of a group. But it could be argued that it might turn to manipulative behaviour if employees used RPE to secure gains without providing a true contribution to the firm's wealth, a situation which is likely to happen if employees involve in some dysfunctional behaviour or information manipulation. Gibbons & Murphy (1990) consider such behaviour as a source of some costs of using RPE in addition to the explicit cost of observing the average output of the workers who share the same uncertainty. The other set of costs includes a potential distortion in incentives that might occur if the worker could affect the output of the reference group. According to Gibbons & Murphy (1990) this can happen in many ways, such as sabotage, collusion, affecting the choice of the reference group or its performance. It could be argued here that one of Holmstrom's basic assumptions about RPE is that agents' actions are independent and non-collusive. Antle and Smith (1986) repeated the same assumption. Thus, the arguments of Gibbons & Murphy (1990) about possible collusion and sabotage under RPE contradict the basic assumptions of RPE by Holmstrom (1982) and other writers.

Therefore, it can be concluded that the dominant assumption in the literature of RPE suggests that constructive behaviour in response to social pressure can not be always the case.

However, social comparisons and Maslow's hierarchy of needs, are not the only theories that can explain the prospect of RPE. There are also the theory X and theory Y by McGregor. Theory X assumes -generally- that people are lazy, with lack of ambition and they work to avoid penalties or to gain money only so money is the only motive for their behaviour. Such an implication leads to the development of tight impersonal controls (Emmanuel et.al., 1990). These assumptions appear not to fit RPE where employees search for more challenge and compete with others and take the risk of being rewarded accordingly. An alternative set of assumptions was provided by theory Y. It suggests that people enjoy work, wish to do well, are self-motivated and self-developmental. Here control is achieved by tapping people's enthusiasm and giving them tasks that use their talents. Such assumptions seem to be consistent with RPE because these characteristics appear to describe the employees who are motivated by it. Basically, in RPE, an employee seeks -in addition to money- to gain social esteem and to be viewed as a hard-working person. He does not work to avoid punishment but looks towards competing with others and outperforming them. Emmanuel et.al. (1990) discuss other theories of behaviour such as the equity theory. The equity theory seems to start from another dimension in social comparisons. According to this theory, when people compare each other's work and pay, they either feel satisfied or not and as a result, they react by reducing effort or not. The study about market comparison earnings and executive compensation pay in the UK by Ezzamel and Watson (1998) could be viewed as following the line of equity theory. The arguments that were examined in that study were that executives should be paid at least at the going rate and the deviations from that rate would influence subsequent pay. They argue that for motivational, recruitment and retention reasons, senior executives has to be paid at least the going rate. Here the implicit assumption is that pay comparisons would lead to either satisfaction or dissatisfaction and this could de/motivate executives and this might affect consequent pay and performance.

In RPE, rewards are based on comparisons of performance and informing the employee that his/her work (and reward) will be subject to comparison with others, which leads to motivate him/her to exert more effort and he/she is rewarded accordingly.
So social comparison is a motive for better performance in RPE as illustrated below:

In Social comparison theory: performance → comparison → reward

In equity theory: effort → performance → reward → social comparison

↓

satisfaction (or dissatisfaction)

Here, the mechanism of equity theory when people are paid, they -presumably- become involved in pay comparisons. So comparisons start after collecting pay and are related to it rather than to performance. Apparently, this is different from what is proposed in RPE where employees know they would be compared to others, before they work and before they are paid. This is expected to motivate them and affect their performance.

Among the theories of motivation, is the two-factor theory of Herzberg who introduced two sets of factors: dissatisfiers and satisfiers factors. The dissatisfiers set consists of supervision, administration policy, work conditions and money. The satisfiers set of factors represents achievement, recognition, responsibility and advancement. Consequently, money, promotion, power and social prestige are different motives for different persons and for the same person at different times. Emmanuel et.al., (1990, p: 76) argue that people are motivated in different ways and by different incentives. Hence, if gaining recognition is the motivating factor behind RPE, but is not the only factor, then there is no guarantee that it will motivate different employees, nor do so permanently for an employee. Emmanuel et.al. (1990, P: 78) also argue that work is tiring and pleasure from working hard can not be a response to the need to gain social esteem for a long time.

Another theory of motivation is the expectancy theory which views motivation as a process which governs an individual's choices. Therefore, behaviour is a goal -oriented process. If RPE is interpreted within this theory, earning money and social esteem would be the goals of the employees, competing with peers and exerting effort are selected choices and this represents a constructive behaviour chosen to carry out that choice.

The previous discussion suggests that RPE can motivate employees to work hard in response to social pressure to gain both money and social esteem. Given that RPE is addressed as a control system with a motivational role, it could be argued that the "competition with peers" might be planted as an element of the corporate culture and could be used for motivation. Ezzamel (1992) states that the values and beliefs which constitute a corporate culture, are subject of social and political influence within the organisation. However, corporate culture can become a forceful control tool in the hands of top management to motivate the performance of lower managers in the desired direction. The potential divergences between corporate goals and those of its participants can frequently be minimised, as they become internalised in the widely accepted culture; hence opportunistic behaviour can be limited.

However, there is a need to examine -in reality- what type of employees would respond – as expected- to RPE. In addition to considering whether money and esteem are the drives behind this response or there are other drives, whether money and esteem work in a complementary way or competitive way to generate that response to RPE. Also which type of behaviour is triggered by RPE, to what extent and under what circumstances need to be tested.

(4.2.2) Arguments about the Components of RPE package:

This section will discuss the performance measures which were used in RPE literature and in actual practice in the UK environment as reported in Al Bahimani surveys (1993, 1994). In addition to performance measures, form of rewards will be reviewed as suggested in the literature. The aim of this discussion is to examine the performance measures and reward forms as used in RPE schemes.

Performance Measures:

Kaplan [(1984 (b)] argues that top management have mistakenly accepted accounting measures as accurate indicators of efficiency and attempt to instruct lower level managers to seek optimal solutions. In the face of environmental uncertainty, information asymmetry and lack of clear objectives, bounded rationality is a temporary "an ephemeral" concept. Not only could these measures be mistaken, but also even if they are correct, they are not enough to reflect the activities of employees. Ezzamel (1992) states that the traditional accounting measures share certain limitations; being short-term, sub optimal and lacking future orientation. Then, objective measures in terms of staff turnover, productivity, customer satisfaction and complaints and other non-financial statistics should be reported (Emmanuel et.al., 1990 p: 365). Customer satisfaction and labour productivity will not be shown in the accounts, even the costs and revenues associated with a special order will probably be embedded in aggregate data. The timing of the report at the end of the month may make tentative judgements about the relationship between the special order and the financial results could be difficult to interpret because the events which they refer to are over and done with.

Burns and Ezzamel (1999) provide an empirical piece of evidence in their survey for management accounting changes in the UK. They report that UK managers today are more 'commercially oriented' and this means that profits are important but put into a broader context and attention is given to the underlying factors which generate profits in the longer term. Such commercial orientation usually emphasises the 'key performance indicators' linked to the strategic consideration, expressed in financial and non-financial terms. This growing emphasis on non-financial measures implies recognition that financial information gives only a partial picture -a snapshot- which may not indicate longer-term profitability. Therefore, additional elements could be included in the management accounts to give a fuller picture, e.g. using ABC and other new techniques.

McKenzie et.el., (1998) argue that the Balanced Scorecard is an approach of integrating financial and non-financial measures of performance that can be used for measuring and rewarding performance. For incentive design purposes, the Balanced Scorecard emphases not only on financial measures, but also on such measures as new products development, market share, acquisitions, safety and pollution reduction. Using measures that are difficult to quantify makes it difficult to base compensation on them. For example, customer satisfaction is an important measure for any business. However, if it is measured through surveys, opinion boxes or informal pools, often dissatisfied customers are captured while, satisfied customers may not offer valuable and positive feedback. Alternative measures might provide deeper insights as for instance measures of product defects, customer return or repeat business which can track customer satisfaction indicator.

Ezzamel (1992) calls for complementing the financial controls by involving the quantitative and qualitative measures of a non-financial type. Ezzamel argues that many of the financial indicators are highly sophisticated and are particularly effective when used as part of a control package because exclusive focus on financial measures has two limitations. Firstly, it ignores the important role that other quantitative, non-financial controls can play in guiding the performance of managers. Secondly, by implication it understates the extent to which qualitative controls bring about organisational coherence and reduce the potential for opportunistic behaviour.

Thus, one main objective of this research is to test the performance measurements within RPE schemes. Three aspects are thought to have a specific importance in relation to RPE, (a) including non-financial measures in addition to the financial (b) the impact of the measurement's ability to reflect controllable actions on employees' response to RPE and (c) different measures needed for different managerial levels.

Rewards

Emmanuel et.al. (1990, pp: 276) predict that observing the organisations practices of rewards does not easily provide definitive clues as to which reward is more effective in a motivational sense. This is because some choices of reward forms are affected by elements such as taxes, employee retention, and the influence of competitors' choices. Long-term incentive awards reduce turnover through the provision of a form of "silver handcuffs".

Any of the rewards mentioned above (Emmanuel et.al 1990) could be linked with any performance measure(s) that can be used to distinguish good and poor performance. In contrast to Emmanuel's expectation, Murlis (1988) reported that there has been an increasing trend in the UK during the late 1980's to include a performance -related element into the remuneration package of middle managers.

When reviewing rewards within the literature of RPE, it was found that Kunckel and Magee (1984) used change in salary and bonus excluding stock option as a package for compensating agents and got inconsistent evidence about RPE. Antel and Smith (1986) used a more comprehensive package containing total salary, bonus, stock holdings and benefits. Gibbons and Murphy (1990) found evidence that directors' remuneration was built on RPE, when both basic compensation and a comprehensive compensation package were examined. The results of Lambert et.al. (1993) were consistent with those of Gibbons and Murphy about RPE although the former used a total package of base salary, annual bonus, stock options, sharing plans and restricted stock. Conyon and Gregg (1994) used salary and bonuses but not share options and found support for RPE when sales growth not shareholders' return described the performance of the managers.
The point which this review raises is that different studies had different conclusions about RPE when different remuneration packages were used. This suggests that RPE could be sensitive to the type of compensation package examined. This prompts -in this research-

the question as to whether in reality, different managerial levels have different preferences to pay items, if so, what, why and how this would enhance the response to RPE. The following sections put forward some arguments about time span of measures, dysfunctional behaviour and the national culture in relation to RPE.

(4.2.3) Other Contingents of RPE

(a) Impact of the Span of Time on the Efficiency of the RPE

The time span of a decision or action can be an influential variable on RPE. This point relates to measuring performance and accounting measures have been criticised for being short-term oriented (Kaplan and Atkinson 1998). Otley (1995) argued that even if profitability is taken as a major objective, there are still questions about long-term and short-term indicators of its relationship to growth, liquidity, and share price consideration. In his survey, Vancil (1979) found that over a third of profit centre managers recognised profit measure as incomplete and certainly not an all-inclusive reflection of long-term potentials. Kaplan (1984 (b), P: 409) criticised managers in the U.S.A as being excessively concerned with short- term measures at the expense of longer-term consideration, unlike their counterparts in Japan who regard such considerations to have more importance. Executives see the current trend towards rewards based on immediate year's performance rather than long-range growth is a serious disincentive to management objectivity. Ittner et.al (1997) found that less than 2% of the organisations in the sample used non-financial measures designed to assess short-run drivers of long-run financial measures. The study found that short-run performance measures seemed to be chosen strategically in the sense that, organisations competing on innovation were more likely to use non-financial measures to reward performance than organisations competing on cost.

Kaplan (1984 (b), p: 413) continues his debate that annual profit as a short-term measure is not necessarily the best indicator for proceeding in a long-term profit path. Other non-financial measures such as product innovation, product leadership, employee skill development and customer loyalty may be much better indicators of future profitability than annual profit. It is unlikely that any single measure can both summarise the economic events affecting a firm or a division during a period of time and serve as a basis for motivating and evaluating managers. Therefore, multiple indicators may improve the motivation and evaluation of performance. Kaplan and Atkinson (1998) argue that short-run performance measures are usually financial measures such as profit or cost, but it could be a non-financial measure such as quality or on-time delivery. When a performance measure is non-financial, it is usually chosen because it is felt to be a driver of long-term financial performance that is controllable by the person being rewarded.

Ezzamel (1992) argues that most accounting- based measurements of performance or profitability are short-term oriented. Coats et.al. (1990, p: 140) raise another point in this debate. They argue that while a large proportion of investment is likely to be of a long-term nature, the appropriate performance measure should logically be a long-term measure. Profitability indices such as return on investment and residual income are potentially capable of reflecting long-term performance of past decisions but not recent or current decisions. The measures are designed for a particular period but not for the future. Therefore, they are effective short-term measures but could lead to dysfunctional behaviour in the longer term.

Coates et.al. (1990) argue that the average return on investment and other profitability indices for a number of years were suggested as a surrogate for long-term profitability. Coates et.al. (1990) expected this to be impractical or misleading. For example, is a new manager to be held responsible for the decisions of his predecessor? What if a manager expects to have a particular post for only 2 or 3 years before being promoted or leaving for another job? How will the consequences of his decisions over that period be shaped and measured? Should managers be rewarded according to the ultimate result of their decisions? Can this be practical? What are the effects of the timing of rewards on motivation and on the response at every managerial level? Production workers might prefer an immediate bonus after meeting a target while their divisional managers might find an incentive scheme tied to the outcome of the whole project, which entitles to rewards after a period of time, is more acceptable. Among the questions which are raised related to the time: Can measures like cost effectiveness, matching scheduled plans, quality in similar situations, be used to benchmark managers' performance in on-going projects? In other words, should reward be based on the outcome of a decision or the quality of taking that decision? These issues were subjects of discussions in the literature (Kren and Liao, 1988 and Kren and Munter 1995). Kren and Munter (1995) predicts that in practice some managers seem willing to see their hard effort recognised when evaluating performance. They found evidence about this prediction in their study when a manger explained that while his performance was not as good as others, but it has improved over the previous year and with regard to the chaotic environment in which they worked, that was outstanding!

In the studies of RPE, this problem was thought to be overcome by using the change in performance measures. For example, [e.g. Kunckel and Magee (1984) used the change in accounting return on common shareholders' equity, Gibbons and Murphy (1986) used the change in shareholders' return) or the Δ shareholders' return (current – last period)] as a performance measure of the company. In this case, all the arguments raised by Coates et.al. (1990) above will apply. Spencer et.al., (1977, P: 284-287) proposed the following long-term measures for growth:

Stockholders' purchasing power: This is an indicator of the position of stockholders' purchasing power in the industrial economy. Thus, a company's success can be measured in terms of " the growth of dividends per share" where dividends are the source which generates a stream of purchasing power to shareholders.

Market appraisal measure: - This is a presentation for a historical relationship between the market price of its equity shares and a broad average of the price of the stock to the value of the stock index. The latter might be the Dow - Jones Industrial Average or any other index. This approach can also be applied to earning or dividends.

Capital- attracting standard: - This measures the company's ability to acquire funds. It can be used as a reflection of the company's status in the investment community. Since there is some cost related to obtaining capital, so the company's ability to get funds should be evaluated in terms of dilution of stockholders' equity.

In spite of being useful, these measures have a major defect. It is that they reflect "company's" performance as a whole but not a division's performance or a "manager's" performance. Meanwhile, RPE is a technique for evaluating and consequently rewarding the manager's performance not company's one. Evaluating employees according to their controllable performance, is a basic requirement for any appraisal process. In addition to this, the company's outcome is a joint product of many activities: production, purchasing, marketing ...etc., and is not a result of an individual effort of a manager or a function. The company's deficiency or remarkable efficiency can result from one or more of these activities.

(b) The influence of dysfunctional behaviour:

Gibbons & Murphy (1990, p: 33-35) stated that RPE can be a source of dysfunctional behaviour in many ways. A worker's action can possibly take many forms. For example, it can be sabotage (in which he takes unproductive actions to diminish the measured performance of another worker in the reference group). It might also be collusion (where workers in the same reference group collude). Other forms might include; the choice of a reference group (an employee chooses which of several groups to be compared with) and production externalities (where productive actions of one worker affect the output of other workers).

It could be debated that while dysfunctional behaviour might not be a feature attached to RPE, it might occur because of one or more of its components. The main form of dysfunctional behaviour which might affect RPE, is the employees' tendency to manipulate the information about their performance in order to influence the rewards they receive. Such behaviour has been discussed in the literature by Jaworski et.al. (1992). Jaworski et.al. (1992) anticipate the role-conflict to be a reason for this behaviour. Emmanuel (1990, p: 77) identified another possible source for this behaviour, it is holding the employee responsible for actions or events that are beyond his control. In such case, he/she might react by a defensive behaviour which might influence the process of monitoring his work. Another source can be focusing on short-term measures (financial mainly) or on general irrelevant measures that do not satisfactorily express his work. Ezzamel and Hart (1987, p: 367) argued that personnel goals could be a possible drive for dysfunctional behaviour. He found in a survey that, a division manager -when taking an action- was interested in the impact of that action on his promotion. He was not interested in the long-term consequences of his decision because dealing with them would be the responsibility of the person who was then in charge!

Kaplan [1984 (a)] proposed some remedy via the use of non-financial and long-term measures to evaluate and reward managers. A more valid and reliable periodic measures for divisions could be obtained if there were measures for market prices, development of new products, improvement in processes, R&D experiments, developing employees skills and morals, flexible and high -quality manufacturing operations, efficient distribution and customer loyalty. Kaplan's [1984 (a)] suggested that improvements in measuring performance might be helpful to relieve the negative impact of dysfunctional behaviour (or corruption). It can be argued that the mechanism of RPE -especially the comparison process- can sustain detecting such behaviour. As the comparison group is an independent element in that mechanism, and unlikely to influence it, the comparison process could be useful in revealing any deficiency or corruption. The choice of the reference group that shares the same environment, task similarity, observability, ...etc. are among the features that constitute the merits of the reference group's help.

The argument about RPE and dysfunctional behaviour are divided into two sub-arguments: RPE and competition on the one hand and RPE and dysfunctional behaviour on the other. Regarding RPE and competition, there is firstly a need to identify which type of competition the argument relates to and secondly to trace the direction of the relationship with RPE. Three types of competition can be recognised: competition in the market, competition among peers in different companies and competition among colleagues in the same company. The relationship between RPE and each of them is illustrated in the figure below:

RPE → causes competition among peers (Holmstrom 1982, Walker 1989)
RPE → Increases competition among co-workers (Villadsen 1995)
↑ is affected by the competition in the market (DeFond and Park 1999, Dye 1992)

The figure shows that Holmstrom (1982) assumed that under RPE contract, agents would compete with each other. The resulting competition is supposed to be the basis behind the whole motivational role of RPE. The definition of RPE given by many writers [Holmstrom (1982), DeFond and Park (1999), Dye (1992), Fredrickson (1992), Kunckel and Magee (1984), Conyon and Gregg (1994), ...etc] emphasises that the reference group belongs to other companies and not to the same company. This implies that, RPE is an external benchmarking and in addition to its impact on competition among peers from competitive companies, Villadsen (1995) argued that RPE might affect the co-operation/competition among employees in the same company. Villadsen (1995) predicted that a contract that utilises the agents' co-operative behaviour dictates less relative performance evaluation than does a non-cooperative contract or a contract that ensures the employees do not co-operate. Villadsen (1995) explained that if the positive aspects of collusion (sharing information, work or risk) are taken into account, the organisation might benefit from co-operative behaviour, more than from preventing collusion.

DeFond and Park (1999), Dye (1992) and Fumas (1992) argue that RPE's usefulness increases when the competition in the market increases. This is due to the following reasons; RPE would identify and replace the poor management [DeFond and Park (1999)], RPE relates to strategic advantages (Fumas, 1992) and would encourage investment in risky decisions (Dye 1992). This discussion indicates that RPE causes competition among co-workers in the same company and among peers in different companies but becomes affected by the competition in the market. The usefulness of RPE increases when the competition increases.

Regarding the argument about RPE and dysfunctional behaviour, Holmstrom (1982) drew a condition for RPE model, it is that any agent's action or outcome is "independent and non-collusive". This suggests that it would not affect other agents' actions or outcomes. Walker (1989) considered that this part of Holmstrom's condition makes an "if and only if" proposition. It is not only the independence of peers performance which has been stressed in the literature but also the scope of comparison as well. Dye (1992) supported this condition by stating that, the usefulness of RPE relates to the thinness of the market in which an agent operates. The larger the number of competitors is, the more the comparison reflects relative performance. Furthermore, peers independence, large number of competitors and Holmstrom's assumption that they would compete in "an appropriate" behaviour, all constitute the basis for minimising the chances for dysfunctional behaviour from RPE.

Another point equally important in this discussion could be the impact of national and organisational culture on the use and efficiency of RPE. This will be underlined below.

(c) An Influence of National and Organisational Culture on the use of RPE

In an experimental study by Chow et. al., (1994) on national culture and preferences of management controls in Japan and the USA, the researchers tested the attitude of the Japanese and the American towards applying the relative performance evaluation. They found that the Japanese tend to prefer RPE more than the Americans. Furthermore, the Japanese viewed RPE as a controllability filter that can be used to adjust or eliminate the effects of uncontrollable factors from an employee's performance appraisal. However, RPE was not found to appeal to the Japanese as a motivating technique for individuals that induced competition among employees. The reason for this was that a competition emerging from RPE was seen to be inconsistent with the Japanese preference to work in teams in contrast to the Americans who have high individualism. So the Japanese culture tends to adopt the attitude of encouraging group ambition in the work rather than individual ambition.

Chow et.al. (1994) did not find a direct distinction between the Japanese and the Americans with regard to preferring RPE. Chow et.al. (1994) used Hofstede's (1984) four dimensions of national culture (i.e uncertainty avoidance, masculinity, individualism and power distance) to deduce a difference between Japan and the US related to rewards and RPE. According to Hofstede's (1984) Japan scores more than the US in uncertainty avoidance, masculinity but less in individualism. Chow et.al. (1994) argued that the higher tendency to avoid risk in Japan than US, was one of the reasons which encouraged the Japanese to use RPE as a controllability filter. The Japanese did not accept RPE as a motivational tool because it feeds competition among individuals, which the highly collectivist culture denies. Alternatively, the Japanese participants regarded RPE as a competition between teams not individuals. High masculinity in Japan leads to a greater preference to performance-related pay of which RPE is a mode.

There are two points that arise from Chow et.al. (1994) study: the first is that group orientation can not only be a matter of national culture but also a matter of organisational culture. Some organisations are interested in developing and enhancing competition among employees and between employees and their rivals in the other organisations whereas others are not. The second point that can be detected from the Japanese response to RPE is the type of the reference group. A question of "With whom the employee is expected to compete and who is the employee, an individual or a group". The literature of RPE (Dye 1992, Janakirman et.al. 1992, Dopuch and Gupta 1997) defined RPE to mean: rewards on comparing performance with peers in other companies. The peer group -by definition- does not refer to co-workers or colleagues (who are supposed to co-operate) to compete with external peers. Although the literature of RPE, has defined and tested RPE assuming it is applied to individuals not groups, the Japanese pattern -explored by Chow et.al. (1994)- suggested that applying RPE to groups, was not excluded. In such a case, considerations like the nature of peers (who should be similar work teams) might be addressed along with possible interactions among members of group(s), which might affect the analysis.

Chow et.al. (1994) was the first study to explore different patterns, interpretations and implications of national culture on RPE. It showed the importance of studying differences in national cultures regarding control systems generally and RPE specifically. With the increasing globalisation in the 1990's, it is one of the aims of this research to explore the implications, differences and interpretations about RPE in different cultures.

Summary

In this chapter, four sources for developing the arguments of the research about RPE have been identified. The first source was the discrepancies in the literature of RPE (raised in chapter three). Secondly, it was the limitations of economic perspective when handling RPE. The third source was the overlooked complications in RPE practice in UK. The fourth source was the lack of links between studying RPE and the wider accounting domain of performance and the invitations of academic bodies to adopt innovative research methods in studying pay and performance.

This orientation led to raising arguments firstly about; the motivational role of RPE and interpreting this role in the light of motivation theories. Secondly, the debate about components of RPE, impact of span of time, dysfunctional behaviour and national culture on RPE has also been discussed. It should be mentioned that this chapter and the arguments that it offered, are the bases for focusing the research's arguments and questions. It would also form the basis for planning the research design. Chapter five will focus the arguments that will be empirically examined in this research and will draw the research design.

Chapter Five

The Research Questions and Methodology

Chapter four established a wide underpinning for developing the research arguments. The limitations of the economic perspective of agency theory suggest a need to consider an alternative framework which could fit for studying the research arguments. The disregarded complications of UK patterns of RPE such as why in practice RPE is applied on multi levels of targets and rewards and why was it used for top management only, to what extent it is relevant for other managerial levels. Furthermore, given that RPE is a reward scheme which compares the performance of the individual to that of his/her peers, suggests a need to link the debate with the huge accounting literature about performance, measurements, rewards and motivation. All these points suggest a need to study the content and context of RPE. The academic invitations to depart the conventional methods of studying the topic of pay and performance, triggers the search for a method of study that could provide a rich and direct evidence rather than statistical analysis of archival data that the previous studies adopted.

The line of enquiry adopted in this research was fixed to regard RPE as a control system, this orientation will be followed in this research and the arguments will be focused within Otley's (1987) framework of control system's design. This framework suggested three questions regarding any control system: what dimensions of performance should be measured, what standards are to be set and what rewards are to be associated with it. In addition, this chapter outlines the research methodology and selects a research design from alternative research plans. Detailed study of the research instruments, organisations and subjects of the fieldwork are presented in this chapter. Furthermore, potential contribution and limitations will be highlighted.

(5.1) Part One: Focusing the research arguments

As discussed in chapter one of this thesis (pp: 10-12) RPE can be analysed as a control system. In order to focus this study's arguments about RPE, Otley's questions (1987) about a control system will be traced in RPE. Otley (1987, p:5) suggests that in the design of a control system, there were three basic questions that need to be answered:

(1) What dimensions of "good" performance that the organisation is seeking to encourage?

(2) How are appropriate standards of performance to be set?

(3) What rewards are to be associated with the achievement of targets?

This chapter will apply these questions to RPE, that is, within RPE system, how performance should be measured (and what dimensions should be examined) before a comparison with peers and rewards are set. Also, the appropriate peer group should be selected (from the point of view of the organisations and the individuals) and what rewards employees would be entitled to under RPE system and why. While adopting this framework is a new endeavour in researching RPE, the debate will also investigate what "features" of targets, measures and rewards influence the effect of accepting RPE.

(5.1.1) The peers group as a performance yardstick:

Regarding Otley's question, what standards should be set, in RPE the standard is the peer group, so the question is what peer group should be used, why and how this will affect the system. Both academic studies (Kunckel and Magee 1987, Gibbons and Murphy 1990, Antle and Smith 1986, Conyon and Gregg 1994, ...etc) and practice[1] reported the use of different reference groups e.g. industry index, market index, a selected group of competitors or the top 100 companies in the national economy. It is argued in this research that the performance of the various peer groups represent the target which the employees are expected to achieve. UK companies such as Cookson, Abby National, Berkeley Group and Chill adopt this understanding. Those companies -explicitly- state it in their disclosure about RPE plans in their annual reports, specific terms to award the incentives. These terms usually relate to a desired position the company seeks to achieve relative to the comparison group and calls it a "predetermined

target" (e.g. the 1998 reports of Berkeley- page 28, Cookson- page 29, Abby National- page 47 and Chill- page 39).
Because RPE is a reward scheme, it is argued in this research that, the employees' perception of these targets in terms of difficulty might affect their response to the reward package. Therefore, this is one of the key questions which this research aims to examine.

Merchant and Manzoni (1989) presented a survey of the impact of the target's attainability on employees' performance both in accounting and psychological perspectives. They state that most textbooks and articles suggest that for maximum motivation budget, targets should be "difficult" but "attainable". Target's difficulty was defined as the difference between the current performance and the performance level of the target.

(Tosi et.al., 1994), argued that very high levels of monitoring may constrain managerial decisions in ways that may counteract the potential benefits of additional monitoring and motivating. This pattern can be explained by the employees' desire to protect themselves from higher degrees of uncertainty. The same pattern can be expected with RPE. Employees might perceive rewarding on relative performance as if, it ties their performance to "unfair" standards which they can not meet. As this can have a negative influence on their income, such a situation may not only de-motivate employees but may lead to dysfunctional behaviour as well (Hirst 1983). They may be so cautious in their strategic decisions that attractive business opportunities are missed. They also may not be willing to engage in behaviour that risks substantial decline in performance because doing so might negatively affect their pay and increase their employment risk. However, Fredrickson (1992) argues that employees would respond to RPE to gain money and social esteem. It is argued in this study that Fredrickson's point is feasible as long as employees perceive the peer group as an attainable target. "Achievablity" is the influential feature of targets on the employees' response to RPE.

No attempt has been made before in the literature to include the notion of target's difficulty when analysing the implications of RPE. One of the basic enquiries of this research is to test that argument.

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[1] as presented by some reports such as: After Greenbury and Company reporting.

(5.1.2) Measuring performance:

According to Otley (1987) the question about how performance should be measured is a key one that should be examined in any control system. It is worth noting here that previous studies of RPE did not address any aspects regarding the performance measures in RPE schemes with the exception of Antle and Smith (1986). Although some studies (e.g. DeFond ad Park 1999, Conyon and Gregg 1994 and Antle and Smith 1986) have been built on more than one measure for performance, no assumptions have been made about why different measures were used. Neither was there investigation to what the features of different measures are and how that would/affect RPE.

In this research, two points about the performance measures are debated, first; what/is the impact of using non- financial measures in addition to the financial ones on the response to RPE package? Second, the impact of accounting vs. market measures on RPE. These points will be addressed respectively in the following section.

a: Financial only vs. financial and non-financial measures

Both theory and practice have addressed the system using various performance measures in RPE schemes. Ezzamel (1992) for example, states that performance index should engender corporate- optimal behaviour, promote divisional independence and maintain the controllability. Al Bahimani (1993, 1994) found dissatisfaction among British manufacturers regarding the current financial measures of performance and willingness for more use of non-financial measures. Kaplan [1984 (a)] also argues that undue focus of management accounting on financial performance have contributed to the poor international competitiveness of US corporations (compared to their Japanese counterparts). However, McKenzie et.al. (1998) reported that accounting measures were used in incentives programmes in 100% of the companies which they investigated using Wall Street data bases. 72% included non-financial measures and 10% depended on economic value added (company's performance relative to the cost of capital). Measurements such as net income, earnings per share, return on equity/capital employed and return on assets were still used in the majority of corporate incentive programmes. Ittner et. al., (1997) found that the use of non-financial measures was an increasing function of the noise in financial performance measures. This result was consistent with the theoretical work on performance evaluation using multiple signals (Feltham and Xie 1994) where financial measures alone are expected not to provide the most efficient means to motivate managers to act in the manner desired by the firm's owners. Therefore, bonus contracts should place non-zero weight on any performance measure that provides incremental information content about the dimensions of managerial action that the owner wishes to motivate.

With regard to behavioural implications, Ezzamel (1992) draws attention to Hopwood's (1972, 1974) studies which offer some important insights relating to the non-accounting style of performance evaluation. For example, in contrast to the budget-constrained style, the use of non-accounting style was associated with lower job tension and lower manipulation of accounting reports. It was also associated with better relations with superiors, colleagues and peers. In the case of peers, this was manifest in better peer-supportiveness, achievement and affiliation; better peer agreement and helpfulness. Furthermore, the use of the non-accounting style which included non-financial data, for performance evaluation was also found linked to better job satisfaction and feelings of fairness of evaluation.

As argued earlier in this thesis (in chapter one, p: 34), RPE is a tool of strategic management accounting which involves benchmarking performance to competitors and states rewards accordingly, it would be particularly important that RPE avoids the defects mentioned by Kaplan. By including both financial and non-financial measures, RPE would be reflecting more aspects of performance and would avoid focusing on the short-term outcomes that link to using financial measures alone. This could be particularly important because RPE is a reward system. This debate suggests that "representativeness" is the influential feature in the performance measurements in RPE schemes. The representativess means that performance measures are able to indicate various aspects of employees' work and also associate them with corporate strategy. The intention in this research is to explore the features of the financial and non-financial measures. That is, how participants see each type of measures in terms of accuracy, comprehensiveness, time- relating, and controllability, will be examined.

b: Accounting vs. market measures

The second argument comes within the financial group of measures about the impact of market measures and accounting measures on the response to RPE. The UK practice of RPE reveals that, the most commonly used measure for performance of top management is earnings per share and return on shareholdings, both are financial and market-based. Share price was used just once in the sample of 20 companies [although it is criticised in the literature (Antle and Smith 1987) for non-controllability]. Kaplan and Atkinson (1998) argue that accounting- based performance measures may be preferable to stock incentives because they are related to activities that are more under the control of top executives. On the downside, they might be too controllable to the extent that they might be manipulated, accounting measures might hold imperfect association with the long term economic well-being of the firm. Executives can take many actions that increase the reported income and hence increase their compensation. Baber et.al., (1996, p: 299-301) agree on the latter point. They consider that agency theory supported by empirical evidence could infer management's unobservable actions. This could occur by contracts based on observable performance indicators presumed to be correlated to management's actions. These contracts can be build up on market-based measures or accounting-based measures. The argument for accounting-based plans is that, because market measures (e.g security prices) are affected by factors beyond management's control, accounting information can be more informative with respect to management actions. On the other hand, management enjoys an element of discretion in choosing among financial reporting alternatives, and therefore, accounting numbers can be manipulated. Moreover, arbitrary accounting rules can distort accounting profits as meaningful indicators of economic returns and in extreme cases, discourage positive net present value investments (e.g . eliminate research and development spending). On the other hand, market measures because they anticipate future cash flows, reflect economic consequences of management actions. Hence, management actions -regardless of their short or long run consequences- are reflected in market measures. This discussion points at performance measurements' "controllability" as an influential feature of measures. Hence, the question here is, what/is the impact of including financial and non-financial measures on the employees' response to RPE?

(5.1.3) The influence of reward form:

The third question that Otley (1987) asks regarding any control system is what rewards should associate to achieve the targets. Murlis (1988) reported an increasing trend in the UK during the late 1980's to include a performance-related item into the remuneration package of middle managers. Other professional recommendations such as the Cadbury Committee Code of Best Practice (1992) and the Greenbury Report (1995) invited companies to adopt that attitude. Coopers - Lybrand consultancy firms surveyed practices after the issuance of the Greenbury report (After the Greenbury Report 1996) and they document an increasing trend among firms to respond to the professional recommendations and use incentive schemes which are built on comparative performance. Nevertheless, Emmanuel et.al., (1990) argue that the motivational impact of performance-related pay will depend upon the size of the controllable, at-risk (performance -dependent) rewards that managers are promised. Merchant and Manzoni (1989) found that shop floor workers prefer cash rewards whereas their managers preferred shares with future income. Furthermore, Ezzamel and Willmott (1998) found in case studies that non-financial incentives such as: empowerment, providing training, better health service, job enlargement and rotation were used to motivate shop floor workers.

The debate about the rewards above suggests "different rewards for different people and for different levels of performance". Chapter two and three show that the previous studies of RPE, used various compensation packages ranging from a basic salary to comprehensive packages (with shares, post retirement benefits, deferred pay ...etc). These studies did not question the relevance of these packages to the investigated managerial level. This is one of the core questions in this research: which rewards to whom? Why? The feature which is debated here is the "suitability" of rewards to different managerial levels.

The section above focused the research arguments about RPE as a control system. The research arguments, which will be examined in this investigation are:

- Whether RPE can motivate employees to work harder
- Whether/ How the difficulty of peer group would affect the response to RPE
- Whether/ How measuring performance by financial only or financial and non financial measures would affect the response to RPE
- Whether/ How measuring performance by accounting measures vs. market measures would affect the response to RPE
- Whether/ How varying the form of reward would affect the response to RPE

After focusing the research questions, the following section examines the research epistemological stance, research methodology, methods and design within which the research arguments will be examined.

(5.2) Part Two: Epistemology, methodology and method

This part of the chapter describes the research epistemology. This includes a review of the different stances and a justification of the adopted stance. The choice will stem from the research objectives and nature of the investigation and will highlight the research methodology and method which will be followed in consistency with the research epistemology.

(5.2.1) Research epistemology

(a) Ontology

Burrell and Morgan (1979) argue that when studying a social phenomenon, assumptions should be made about social reality, social science (and researching tools) and individuals. First: **Ontology** is concerned with the nature of social reality, the essence of the phenomenon under investigation. This implies questions as such: Does reality exist externally to and independent of individuals? Can it be known, studied, changed? On the one hand, the social world can be regarded as having an empirical, external concrete existence, independent of and prior to the cognition of any individual; this is the *realism* view. At the other extreme, the *nominalist* view assumes that the social world is external to the individual's cognition and is made up of nothing more than names, concepts and labels which are used to structure reality.

Exploring these issues in the phenomenon under investigation - which is performance and reward management and RPE - would reveal that the phenomenon had an empirical, external existence prior to and independent of individuals. Reviewing the Company reports' publications has shown that 21 UK companies (e.g Reuters, Boots, Westminster Bank, Dixons,...etc) use RPE schemes. The performance and rewards phenomenon is knowable/ researchable and changeable.
Conclusion and Choice: **This research's ontology** is: **Realism**

(b) Epistemology:

Epistemology is concerned with the nature of knowledge and there are two streams as Burrell and Morgan (1979) introduced: *positivistic* and *anti- positivistic*. The positivistic epistemology seeks to explain and predict what happens in the social world by searching for regularities and casual relationships between its elements. According to this epistemology, regularities can be verified or falsified by an adequate research programme. According to the anti- positivistic epistemology, social world is essentially relative and can only be understood from the point of view of individuals who are directly involved in the activities under study.

Otley and Berry (1994) argue that in the social sciences, the observations that are sought, the phenomena that are perceived and the interpretation that is put upon them are all influenced by the theoretical presuppositions of the observer. This argument is applicable to the current body of knowledge about RPE (e.g., Antle and Smith 1984, Dye 1992, Fredrickson 1992, Doupch and Gupta1997, DeFond and Park 1999,...). It is affected by the assumptions, measures, samples and research methods about RPE which developed. Different streams of these studies produced "different knowledge" about the same phenomenon. Some of these studies (e.g. Fredrickson 1992, DeFond and Park 1999) conclude that relative performance is taken into account when rewards are set, other studies (e.g. Antle and Smith 1986, Dye 1992, ...etc) could not find an evidence on that. Here, different research tools, lenses, produced different knowledge about the phenomenon that exists separately from the researcher. This shows that current literature did assume or approve that regularities in RPE debate can be falsified by a research programme nor did it trace casual relationship between RPE and performance which predicts that the prior studies in RPE were not positivistic in orientation.

In this research, one of the aims is to gain insights into RPE rationale, practice and experience by asking the individuals who design and implement these packages and those who are rewarded by these packages. Also in this research, RPE is analysed within a contingency framework unlike the previous studies which have been framed by agency theory. This will have implications on the analysis and the knowledge developed (details in chapter four, p: 64-67, e.g. no prior assumptions about the parties involved in the debate, no assumption about economic utility as a sole driver of behaviour, no assumption about maximisation behaviour).

Alternatively, contingency theory is adopted as a framework and this allows an exploration of the context within which RPE works and the features of the individuals and the environment which enhance the use of RPE. Under the contingency framework, no universal control system exists for all organisations in all situations, instead, control systems should be tailored in the light of the characteristics of the organisation and its environment (Otley 1995). This implies that the knowledge that will be gained about RPE in this research will depend on which organisations will be examined, with what technology, capital, markets, culture,...etc. Here RPE as a social phenomenon will be "relative" and understanding it will depend on the observations which the individuals (appraisees and appraisers) provide about it. Therefore, this research will be based on an anti-positivistic type of epistemology.

(c) Research paradigms:

Burrell and Morgan (1979) integrated the dimensions about the nature of reality, knowledge and human nature into two major dimensions: the subjectivity/ objectivity dimension and stability (regulation)/ change and developed their four research paradigms: functionalism, interpretative, radical humanist and radical structuralism. Hopper and Powell (1985) classified and analysed many research approaches in accounting under the previous paradigms. It is not the aim of this research to analyse or evaluate these paradigms, but to identify this research's standpoint. The following section reviews briefly these paradigms.

1: Functionalist

The functionalist approach is based upon a real ontology where the social world has an external existence distant from the researcher. This paradigm is rooted in positivism and aims to address regularities through devices borrowed from natural science and oriented -pragmatically- to solve problems.

2: Interpretative

The interpretative approach assumes that social reality is a network of assumptions and intersubjectively shared meanings which has existence outside any individual's consciousness. This paradigm aims to understand the basis and sources of social realities. However, this paradigm perceives the world as it is and explains it within the individual's consciousness and attempts to understand the subjectively oriented worlds.

3: Radical humanist

The radical humanist shifts the concern from devices (in interpretative) to individuals. This paradigm is anti- functionalist, anti- organisation and concerned with the alienation problem. Developing the sociology of radical change from a subjectivist standpoint concerns the radical humanist paradigm. This paradigm overthrows limitations of existing social arrangement and argues that the consciousness of man is dominated by ideological superstructures with which man interacts.

4: Radical Structuralism

Radical *structuralism* focuses on radical change, emancipation and potentiality when analysing a social phenomenon and it addresses structural conflict, modes of domination, contradiction and deprivation in the phenomenon. This paradigm tends to be realist, positivist and determinist and assumes that contemporary society is characterised by conflicts, which generate radical change through political and economic crises.

This research shares the positivist functionalist orientation with the previous literature of RPE. In this research, this type of orientation appears to assume that RPE is a phenomenon which exists externally and independently of the research, it is not assumed that RPE can be objectively observed and studied, as is the case with the phenomenon in natural science. The earlier examples of the contradictory results in the RPE literature, provide evidence about this. Gill and Johnson (1991) and Blaikie (1995) considered this a "self- contradiction" in positivist because it excludes from what is taken to be knowledge, the metaphysical that is to say the intangible, and the subjective or abstract. But in rejecting the metaphysical, it rejects as meaningless the very knowledge of subject/object relationships on which any epistemology, including its own is ultimately grounded.

This debate is applicable to this research and more specifically to the research design. The research design was planned to cover a gap in the literature of RPE by exploring the individuals' perception (appraisers and appraises) of RPE. These data will be "interpreted" by the researcher which means that subjects will affect the produced knowledge which deviates from the functionalism and represents an interpretative element. Furthermore, in this research, contingency theory and case study (a move from agency and analysing published data as in the previous studies) are adopted and expected to affect the developed knowledge about RPE. This is another "interpretative" feature of this research.

This discussion leads to a conclusion that both functionalism and interpretivism should be used in this research. This also predicts that this research does not depend on a radical humanist approach since RPE is not analysed or studied as a matter of social change, nor does this research disregard the notion of social arrangement. Instead, issues like the impacts of "organisational" and the national culture which represent social arrangements, are targeted in this enquiry. Regarding the radical structure paradigm, although the research shares a positivist line with this paradigm, it is not intended to investigate RPE as a matter of "conflict" in the organisation. Furthermore, it would not be the perspective to recognise the different parties involved in this scheme (e.g. the company, the designers of this schemes or the employees who are evaluated and rewarded according to it) as "different social forces in a conflict" that might lead to radical change.

While the above discussion leads to a conclusion that both functionalism and interpretivism are used in this research, this opens a debate about the possibility that a piece of research can depend more than on one paradigm which is known as "Pluralism". Before discussing this point, it should be mentioned that in addition to the four paradigms described by Burrell and Morgan (1979), Laughlin (1995) introduced "The middle range thinking", where it is assumed that there is a fifth paradigm at the core of the four paradigms of Burrell and Morgan. However, Hopper and Powell (1985) concluded that when accounting research is grouped according to its social science assumptions, functionalist reigns virtually absolute.

Pluralism:

Gill and Johnson (1991, page 134) discuss the argument that the pluralism position suggests that not only are different methodologies suitable for different kind of problems but also complement one another in a variety of ways. They also conclude (page 156) that all research approaches may have something to offer and that there is no independent form of evaluating different research strategies in any absolute terms. Any evaluation will be done from the stance of one of the paradigms, to refute the others hence there is no independent stance for assessment. However, multi-method strategies require not only a convergence of findings derived from a diversity of methods, but also clarification of the contribution of each research approach used. The case study of control in the Financial Services Company by Berry, Loughton and Otley (1991) is an example of using plural paradigms where both functionalist and interpretative paradigms were adopted.

Where the pluralism came from: The Shift from Economic to Accounting

Holmstrom (1982) assumes that in RPE, peers' performance represents a signal from the market which holds that "additional informational value" that would help in detecting managerial effort. The whole RPE literature since Holmstrom has pursued the same line explicitly or implicitly. In this research, there is a shift in the domain of analysis from economic implications of "the market" to the "organisation" due to gaps recognised in the literature and issues raised from the UK practice of RPE (as detailed in chapter four in this thesis). Shifting the scope of enquiry to organisations implies a shift in the stress to be placed on the organisation, policies, strategies, the individuals and relationships. On the one hand, this would fulfil one of the basic objectives of this research which is to explore the views of both the designers of RPE and the individuals who are rewarded by these schemes, the rationales behind it, expectations and experience with it. It is anticipated that the interpretivism paradigm would help with this. On the other hand, accounting as the financial representation of performance in the organisations, has been involved in a huge and continuous literature for a variety of aspects of "the performance" phenomenon. Among these aspects are: setting targets, participation, motivation, type of measurements, impacts of strategy, technology, using various bases of evaluation ...etc (Kern and Liao 1988, Brownell 1982, Brownell et.al.,1986 (b), 1990, Otley 1995, Ezzamel and Hart 1987). This move to the accounting domain allows studying these aspects and exploring the views of the individuals involved in RPE (this is the interpretative element in this research).

(5.2.2) The research methodology; Agency vs. Contingency:

When exploring a framework for organisational control, Ezzamel and Hart (1987) state that any formal approach will inevitably be incomplete. The researcher would argue that it is not only for organisational control but probably for any topic in management accounting that statement is valid. From this stance, the researcher will examine -in this section- the relevance or irrelevance of agency theory (the dominating framework in the previous research about RPE) and of contingency theory (the proposed framework for this research) for addressing the research arguments.

Agency Theory as a framework for studying RPE

Nearly all the studies of the RPE were proposed within the agency theory. This theory has been subject to a long debate in the literature. Many advantages have been observed for agency theory, for example (Baiman 1982, Namazi 1985), it recognised the behavioural issues that influence the quantitative and economic based research. Also it emphasised the importance of sharing risk and information, in the design of accounting systems via motivating managers (Tiessen 1983, Kaplan 1984, Baiman 1982, Namazi 1985). This section examines the suitability of agency theory or contingency theory as a framework for studying RPE.

Scapens (1984, p: 66- 67) discusses many limitations of agency theory. First, the model focuses on single- period behaviour while multi - period consequences are intended to be addressed in RPE schemes. In addition to this, Ashton (1991) pointed to the complexity and the difficulty in computing equilibrium solutions in more than one agent or more than one period settings and lack of clarity about how equilibrium emerged. Agency theory misses including non-financial measurements for performance [Kaplan 1984 (a) and (b)] and assumes a utility-maximising behaviour (Scapens 1984). The RPE assumes both the firm and the employee to have financial and non-financial objectives. The employee is interested in social esteem and economic utility as well, the firm has a variety of long and short-term goals, financial and non-financial, that should be included in the analysis when implementing the RPE. Third, (Merchant and Simon 1986) argued that agency theory has low specification of organisational variables, only a small set of conditions are considered for examples, attitudes toward risk, range of possible actions of the agent or the principal, and asymmetry of information. However, the theory neglects organisational strategy, structure, technology, culture and leadership style and Ogden (1993) adds it ignores power relations. Finally, Scapens (1984) regarded agency models to represent highly simplified organisational settings, so care should be exercised in generalising their results. With RPE, many environmental and organisational factors are involved.

Walker (1989) recognised that there is a difficulty in structuring the multi and complicated relationships in the real world, determining who is the agent, who is the principal, can be extremely difficult. Also agency theory as a normative model tends to show how managers "ought to " or "should" behave so economic reality or actual facts may be easily rejected and facts sustaining human behaviour are reduced to a priori and an abstract. It also has a narrow assumption of profit maximisation and ignores other norms or objectives that individuals might be committed to, such as loyalty.

Walker (1989) examined the empirical testability of agency theory with a particular concern to Holmstrom (1982) model of RPE. Some problems have been identified. One is the possibility that some other unobservable variables may be driving the results (in case of RPE, competition, managerial levels, type of industry, type of market, ownership, organisational culture etc). Also, there is a problem related to devising proxies for the real world counterparts of the variables represented by the model along with the difficulty in observing the features of that real world which are needed for testing the agency theory.

When examining the suitability of agency theory as a framework to RPE, major contradictions can be recognised. Firstly, one of the aims of this research is to explore the characteristics of the employee who is motivated by RPE and the company which uses RPE and agency theory pre-describes a non- differentiated set of characteristics for the agent and the principal. Hence, using agency theory as a framework will not serve the purpose of this research. Secondly, the assumptions of agency theory about the agent and principal do not match the assumptions of RPE about the employee and the employer (as explained in chapter three of thesis p. 59- 63). Thirdly, agency models ignore variables related to the organisation and variables related to the environment within which it operates (e.g. organisational and national culture). These factors could be influential on RPE (as Maher 1987 and Chow et. al. 1994), and sought to be investigated in this research. Fourthly, being a normative model, would not allow the exploration of the actual practice of RPE in reality, rationale behind it, how it was implemented and what experience resulted.

For these reasons, it is proposed that contingency theory to be used as a framework for studying RPE. Within contingency theory, (Otley 1984,1995) the factors of the environment shape the structure of the organisation and the control system. This sees the organisation as an organic entity in the environment, influenced by uncertainty, competition, and technology.

Contingency theory as a framework for studying RPE

As in the large and on-going stream in the accounting literature (e.g. Hopwood 1972, 1974, Otley 1984, 1994, 1995, Brownell 1985, Brownell and Dunk 1991, ...etc), contingency theory is deemed a methodological framework for addressing RPE in this research. This section discusses the relevance of contingency for this study and the expected outcomes. Contingency theory could allow variables such as motivations, attitudes, incentive structure, performance measures, uncertainty, competition, peers' performance, organisation goals, managerial levels, types of business activities to be addressed. The outcomes of RPE as a control system would be a reflection of the environment.

Otley (1984, p: 127) suggested that the structure of an organisation is importantly affected by the characteristics of its external environment and by features of its internal technology with some scope for the exercise of managerial choice. Hence, contingency theory is suggested as a framework of variables, which affect organisational structure, which in turn affect the type of accounting information system utilised.

Also Otley (1995) argued that the fundamental basis of contingency theory is that there is no universally best answer to the three questions which relate to a control system (i.e. what performance measures, standards and rewards should bet set and how). Rather, the management control systems needs to be tailored to the specific circumstances of the organisation for which it is intended.

Otley (1995) also debates that "the design of any planning and control system is situationally specific. When designing a system, a distinction is made between controllable and non-controllable factors. The controllable factors in the organisation are not considered to be contingent variables, but rather part of the package of organisational controls selected for use. The organisation is expected to adapt to the contingency it faces by arranging the factors it can control into an appropriate configuration that it hopes will lead to effective performance. Interdependencies between accounting information systems and components of contingency elements are still possible".

Merchant et.,al., (1986, p: 191) considered that the contingency theory approach to organisational design found that the effectiveness of an organisation is positively related to the goodness-of-fit between structure (of which control systems are a key component) and contextual variables such as the work performed and the environment. An interaction is proposed such that the interactive effect of independent variables (e.g. technological uncertainty, control system structure) is functionally related to a dependent variable of firm effectiveness. Merchant et.,al., (1986) debated that, while contingency research incorporates in sophisticated measures of organisational context, it has been a possibility of the respondent's bias since most of this research is conducted by analysing questionnaire data. It could be criticised that organisational context is often a construct of the researcher rather than a description of perceived reality in the terms used by the organisations under study. Thus, such defects could be overcome by the use of a case study research. In consistency with that Berry et.al.,(1995, p: 22) considered that "contingency theory provides a picture for the organisation through its environment. Environment is more active in shaping the organisation and the survival of the organisation depends on its fitness for the changing environment." The relevance and consistency of contingency theory for this research stems from the research questions and orientation. The main concern in this research is to examine the components of RPE (i.e. peer group, performance measures and rewards), its potential (i.e. motivational ability) and its context.

Limitations of Contingency Theory

While the previous discussion shows the strengths of contingency theory and its relevance for this research, some limitations and restrictions of contingency theory have been highlighted in the literature. Otley (1980) noticed firstly, the conceptualisation, definition and measurements of key variables require greater theoretical and empirical attention. Secondly, the prescriptions from contingency theory are based on weak grounds e.g. correlations are often small, inconsistent, and rarely related to any effectiveness criteria and thirdly, ignoring the context of controls.

Ezzamel and Hart (1987) identify some other reservations to contingency. (1) lack of precision in defining contingency factors (2) mis-specification of model parameters and using perceptual measures as proxies for organisational characteristics (3) lack of consideration to the multiple effect of the contingencies (4) frequent use of defective sampling techniques (5) use of cross- sectional approaches to measure dimensions that can only meaningfully measured by employing longitudinal approaches. (6) causality often assumed to be linear to avoid complexity of non- linearity assumption.

The reservations of Ezzamel and Hart (1987) could be defects in applying contingency theory rather than being genuine defects in contingency as a framework. Given that contingency analysis -technically- states any research problem as:

$$\text{if } X \xrightarrow[\text{and intervening variables}]{\text{subject to: moderating variables}} \text{then } Y$$

then, the problems with the model is more in the number of the moderating variable and the intervening variables, the difficulty to collect the amount of data required to measure these variables and also -as Ezzamel and Hart (1987) stated- the impact of the interaction between those variables on the model. These complications were thought to be remedied by simplifying the model and setting boundaries for any research. While simplification would help in keeping the model under control, too simplification might hold the risk of over abstraction. The last two points of using defective sampling and cross sectional rather than longitudinal approaches, sound to seek improvements in the instruments used within contingency framework and this seems consistent with this research's orientation to apply case studies approach rather than a survey.

In this research, contingency was used as a bridge for the case studies rather than being used in the positivistic tone suggested in the literature. In that sense, contingency used perceptual measures for target difficulty and approval of performance measures but that was consistent with the research aims to explore the view of the appraisers and the appraisees. Causality depended not only on correlation, but also on the qualitative evidence which the interview data provided.

Hopper and Powell (1985) record that contingency theory is criticised for paying insufficient attention to the discretion possessed by the key decision- makers and how values, beliefs and ideologies may influence choices. Furthermore, contingency appears to describe and measure practices and then establish normative models. Thus it slips into "what should be" and "what might be" is not addressed. By emphasising technological determinism and neglecting how control systems may be a product of social cultures, ideologies and power struggles, attention is deflected from alternatives based on different values.

The researcher would argue that the first and the last critiques of Hopper and Powell (1985) might not be a feature fixed to contingency, rather, it could be deficiency of the pieces of work under contingency. That is, contingency theory as a framework does not preclude issues like values and beliefs or the social culture from being addressed and included in the analyses. The second point raised by Hopper and Powell (1985) that contingency studies practices and then draw normative models seems to contradict with the definitions and conceptualisation of contingency given by Merchant et. al., (1986), Otley (1984 and 1995) and Berry et. al., (1995). That is, those writers define contingency theory as a framework which looks for the best fit for the control system and its contextual variables (i.e., organisation's circumstances, environment and technology,...etc). Using this framework leads to a suggestion of the control system which suites an organisation with specific features in specific environment and context. This does not necessarily imply normative models built on practice, but recommend practical models to suite specific organisations in specific context. Placing such importance on environment, context and the organisation's circumstances would make the resulted models and their outcome in each context "relative" rather than "normative".

(5.2.3) Research Method: Case study approach

This section discusses the case study as the suggested research method, what it is, what it can offer, what types are available and how to choose between them, how it can be implemented, its relationship to research methodologies and finally difficulties with case studies.

Alternative research designs

Brown (1995) argues that while the survey and historical analysis answer "who" "what" or "where" questions, the experiment and the case study will answer "how" and "why" questions. Because the questions in this research are centred around how employees perceive and react to RPE and which circumstances would enhance the use of RPE, it is thought that there might be two alternative research strategies to choose from; a survey on published data or a case study. Each approach is expected to have its own potentials, requirements and limitations. The following is an assessment of the prospects of each strategy.

I: Using case studies

A case study would have many advantages. It can sustain the potential contribution of the research, fit in with the research objectives and framework where points of view of both appraisees and appraisers can be explored. It can also provide an opportunity for identifying other variables which might be influential on the phenomenon but not considered by the researcher. Nevertheless, a case study might have some disadvantages, such as the difficulty in collecting the amount of data required to provide convincing evidence for such studies. If a case study is decided, it would require more than one company which practises RPE on a scale of targets (e.g. Nat West, Reuters, United Utilities) and use financial and non-financial measures (e.g. United Utilities) and pays reward in different forms. Access could be the main determinant on the size of the sample to be used.

II. Testing the arguments on published data:

If a survey is considered for use in examining the research arguments about RPE, it would provide many advantages. First, data could be easily accessed in data bases (such as Data Stream International). Second, any type of choices can be made with regard to the type of industry, size, number of employees, time-span of data, range of experience with RPE. However, this technique might imply many disadvantages as well, for example, some data are unlikely to be available such as the non-financial measures of performance which are needed to test one of the research arguments. This method has been used in almost all the previous studies in RPE and using it in this research will reduce any claim to innovation in the research method although the research arguments are still genuine. It does not help in investigating many arguments of concern, for example it does not provide the points of view of the appraisees and the appraisers, nor the different appeal of RPE to different managerial levels, employees' attitudes and preferences....etc. The available data on databases are prepared at corporate level not at divisional levels whereas most of the research arguments are run at an individual level. Not much data about the reasons behind the practice is expected from this method. On the other hand, in the case study and the questionnaire, the practitioners are expected to enrich our understanding about RPE and its surroundings, implications ...etc.

However, if published data are considered, the first argument in this research which is the impact of target difficulty could be traced by using a set of peer group including: the top 100 companies, top 250 companies, a group of regional peers and similar peers in the same industry. As for the argument about market measures vs. accounting measures, representative of these types of measures could be selected from what is available in the data bases, for the argument about varying rewards, different components of pay packages could be used. The only problem might be in finding the non-financial measures in the database, as databases (such as Data Stream International) contain only financial data.

Because of these limitations of the survey, and because it is expected that some research environments can not provide these data on a data-base, it was decided to adopt a case study method where data will be collected by interviews and questionnaire from companies in Egypt and England.

(5.3) Part Three: The research Design

Case Study as a proposed method for this research

Therefore, the following section will provide a discussion about case study research, types, potentials, relevance and outline.

(5.3.1) What is a case study

Yin (1981,p: 59) identifies a case study as a research strategy that attempts to examine a contemporary phenomenon within its real-life context especially when the boundaries between phenomenon and context are not clearly evident and multiple sources of evidence can be used. Brown (1995) states that Yin's definition allows for the distinguishing of the case strategy from other research strategies. For instance, an experiment deliberately divorces the phenomenon from its context, so that attention can be focused on a few variables, controlled by the laboratory environment. While surveys attempt to deal with both phenomenon and context, because of their particular method, they have limited ability to investigate the context.

Eisenhardt (1989, p: 534) considers the case study a research strategy which focuses on understanding the dynamics present within single settings. Eisenhardt (1991) stresses that the difference between case study research and "storytelling", lays in the methodological rigor and multiple-case comparative logic. Therefore, within case study research, there is a need to identify research questions, develop well-designed instruments such as interview schedules and questionnaires and to consider theoretical sampling and controls and so forth. Some writers consider case study as a method rather than a methodology (Scapens, 1990 P: 47). It is one of the possible means of gathering data that has its own strengths and weaknesses. Whether it is appropriate in a given situation or whether it is to be preferred to alternative methods, will depend on the methodological position of the researcher.

In this research, the enquiry started from a specific theoretical stance with a specific set of questions which are centred around: How RPE is used in practice, why, by which design and where. According to Yin (1994) and Brown (1995) these types of questions are better answered by case studies. The other observation is that, among the objectives of this research is to investigate the context of RPE. That is, in which environment this technique operates, at what managerial level, which organisational climate, culture and under which circumstances. As explained earlier in this chapter, that is one of the motives behind adopting the contingency theory as a framework for the study. This goal has been set for this study to cover a gap in the literature where the context of RPE has not been examined before.

Eisenhardt (1989) indicates that case studies can be used to achieve various aims; to provide description, test theory or generate theory. Also Otley and Berry (1994) stress case studies are likely to be particularly valuable where existing theories are inadequate, incomplete or explain only a sub-set of the phenomenon of interest. However, Yin (1994) proposes that it is the theory-building that the case study is "for" and the case study can be based on any mix of quantitative and qualitative evidence. Scapens (1990) argues that case studies offer us the possibility of understanding the nature of management accounting in practice both in terms of the techniques, procedures, systems etc. which are used and the way in which they are used. However, Yin (1994) and Otley and Berry (1994) discussed various roles for the various types of case studies. These types will be discussed in the following section in order to decide which type will be adopted in this research.

(5.3.2) Types of Case Studies

Yin (1994) classifies case studies into explanatory, descriptive and exploratory, Otley and Berry (1994) add the illustrative and critical case studies˙ Scapens (1990, p: 265) considers that the distinction between these different types of case studies are not necessarily clear-cut. Following is a discussion of these types.

Descriptive case studies

Scapens (1990) identifies the descriptive case studies which describe accounting systems, techniques and procedures currently used in practice. A number of companies may be selected as cases to illustrate different accounting practices or the similarities in the practices of different companies. The research objective of these studies is to provide a description of accounting practice.

Illustrative case studies

According to Scapens (1990), these are case studies which attempt to illustrate new and possibly innovative practices developed by particular companies. Such case studies provide an illustration of what has been achieved in practice. However, there is an implied assumption that the practices of "innovative" companies are superior to the practices of other companies. The case study itself can not provide a justification for such as assumption. Otley and Berry (1994) suggest that an illustrative case study begins from a clearly expounded theoretical standpoint and provides a description of a real-world situation which is interpreted in the light of the theoretical standpoint adopted where existing theories are used as means of explaining observations. Otley and Berry (1994, p: 47) debate that the purpose which such case serves not always clear. It might provide an increased belief in the adequacy of the theory or might become exploratory or critical and cause a theory to be modified.

Experimental case studie

The experimental case as recognised by Scapens (1990), can be used to examine the difficulties of implementing the new proposals made by accounting researchers to help practitioners and to evaluate the benefits to be derived.

Exploratory case studies

Scapens (1990) defines the exploratory case study as that case which is used to explore reasons for particular accounting practices. As such, this case represents a preliminary investigation which is intended to generate ideas and hypotheses for rigorous empirical testing at a later stage. The objective is to produce generalisations about the reasons for accounting practices. The exploratory case study is a first step in such a project. Otley and Berry (1994, p: 46) consider that the central role of case studies appears to be that of exploration where an exploratory case goes beyond that of mere description towards explanation. Brown (1995) argues that for an exploration research, case study is the most appropriate research strategy to investigate the phenomenon and its context.

Explanatory case studies

Scapens (1990, p: 265) discusses this type of cases as they attempt to explain reasons for accounting practices when the focus of the research is on the specific case. In such cases, theory is used to understand and explain the specific, rather than to produce generalisations. If available theories do not provide convincing explanations, it may be necessary to modify them.

Critical case studies

Otley and Berry (1994, p: 46) suggest the critical case to be used to falsify theory by providing an example of a set of phenomena which are inconsistent with a set of theoretical statements. Here the observed data may indicate that a theory is incorrect or inadequate in a specific set of circumstances and thus requires modification. This case may be able to suggest how the theoretical statements might be changed.

In order to select the type of case study that would be used in this research, Brown (1995) provides some guidance that considers defining the research question as the most important step to be undertaken because it provides the necessary information regarding the appropriate research vehicle to use. Scapens (1990, p: 272) approves this line of reasoning and states that where there is a well-formulated theory and the major research issues are clearly defined, it may be possible to select a "critical case" which directly addresses those issues. The objective of such a case would be to determine whether the theory provides good explanations or whether alternative explanations need to be developed.

In situations where the researcher wants to extend a theory to cover a wider range of circumstances, an extreme case would be appropriate. Such a case would indicate the extent to which existing theory can be extended to provide explanations for widely differing circumstance and to identify areas where the theory needs to be modified. This can extend to situations where there is little available theory.

(5.3.3) What type of case study will be adopted in this research

In this research, it is intended to investigate why/why not firms apply RPE, what design is used, what outcomes result and what environment will encourage and enhance the use of RPE. These aims are consistent with the orientation of exploratory case studies. The intention is to explore both the phenomenon and its context. From the outcome of this exploration, generalisations could be drawn about the circumstances in which RPE works effectively (i.e. what design, for which managerial level, in which organisational culture and environment). Thus the research focus is outside the scope of the explanatory case study which limits the objective of the investigation to explaining the specific case only. As indicated in chapter three and four of this thesis, the research arguments are set in the form of questions. This means that the research intention does not imply testing hypotheses, or falsifying theories about RPE, nor does it include experiments about new techniques. The research aims are not confined to describing the actual practice of RPE in different environments as a descriptive case study would provide, but broadens to seek explanations for those practices as well. However, this study might contain an element of the critical case study. In chapter four, some gaps between the literature and the practice of RPE have been recognised. Although these issues represent problems not addressed in the literature, they do not contradict RPE. Nevertheless, the contingency framework adopted in this study might result in suggesting changes in RPE to suite different managerial levels and different contexts. Scapens (1990, p: 267) discusses the case studies within neo-classical economics and social theories. In the former, case studies are concerned with exploring the use of accounting information by managers taking planning and control decisions and used by researchers to generate hypotheses which will be tested by other empirical research methods. However, accounting practices are not natural phenomena but socially- constructed phenomena which can be changed by the social actors themselves. To understand accounting from this perspective requires detailed studies of accounting in practice. It also requires locating the phenomenon in its historical, economic, social and organisational context. Case studies are particularly suitable for this type of research. It is not within the orientation of this research to generate hypotheses that would be tested by other tools and also as indicated in chapter four, this research moves from neo-classical economic perspective to contingency theory (which was classified by Hopper and Powell (1985) among the social theories). Therefore, the case study is used in this research within contingency theory to explore the practice and context of PRE.

Scapens (1990, p: 273) argues that in a programme of case study research, multi-case studies can be used for two purposes; replication and theory development. A number of similar cases might be selected to replicate the theoretical explanations. Alternatively, dissimilar cases may be selected to extend the theory to a wider set of circumstances. The difference between the individual cases will be determined by the direction in which the theoretical extension is desired. The objective of such multiple cases is to develop a rich theoretical framework, capable of explaining a wide range of circumstances. Eisenhardt (1991) supports Scapens' (1990) debate and states that one of the central arguments of building theories from case study research was that multiple cases are a powerful means to create theory because they permit replication and extension among individual cases.

In this research, multiple cases will be used for replication rather than for theory development. It is intended to identify different patterns of RPE in different environments, different companies, industries and different managerial levels. As Scapens predicts, similar cases would provide more evidence/acceptance for the argument under investigation and dissimilar cases might extend the arguments in new directions. The following section explains how a case study may be implemented.

Problems with Case study "Generalisability"

Concerning generalising from case studies, Hartely (1994) argues that if cases are correctly sampled to be typical in specified ways of the population, then the results can be deemed to be applicable (generalisable) to the specified population. Generalising can be difficult for quantitative studies as well when there is heterogeneity and where the processes have not been elucidated. This is where case studies can be useful. The detailed knowledge of the organisation and especially knowledge about the processes underlying the behaviour and its context can help to specify the conditions under which a particular behaviour can be expected to occur, so generalisation is about theoretical propositions not about population. Thus, the basis of the generalisation is not primarily about the typicality of the organisation; it is about the existence of particular processes, which may influence behaviour and actions in the organisation. Hartely (1994) debates that understanding **the contingencies** (context) in which those processes occur is important. Also collecting evidence from various sources to test constructs and theories as long as using existing literature to assess the extent of generalisable finding is important. Writing with a clear conceptual framework rather than a narrative one will also help to relate theory to the literature and aid generalisation. Undertaking more than one case study may increase confidence in findings as well.

(5.3.4) How to implement a case study

Yin (1994, p:14) describes four activities to implement a case study:

1. Consider the theory
2. Define and design
3. Collect and analyse
4. Conclude, modify and develop
5. Reporting the case study

Eisenhardt (1991) considers the analysis process is the most important in developing case studies where within-case analysis should be coupled with a cross case analysis to search for patterns. The key to good cross-case comparison is counteracting these tendencies by looking at the data in many divergent ways. One tactic is to select categories or dimensions and then to look for within-group similarities coupled with intergroup differences. Dimensions can be suggested by the research problem or by existing literature or the researcher can simply choose some dimensions. A second strategy is to select pairs of cases and then to list similarities and differences between each pair. A third one is to divide the data by data source (e.g. questionnaire data and interviews data) and analyse them. Brown (1995) argues that the comparative structure is applicable to explanatory, descriptive and exploratory studies. The following section provides details of the research design for the case studies which will be undertaken in Egypt and England. The outline of the interviews and the questionnaire along with the reasons behind choosing the two research environment, are explained below.

(5.4) Part Four: Designing and implementing the case studies

The research design included a plan for the companies which can be approached for collecting data, the tools for capturing data and the measurements of the key variables. These elements in the research plan are detailed below.

(5.4.1) Selecting the cases

In this research, it was decided to develop case studies from Egyptian and UK companies. Egyptian companies have been chosen, because it is the environment to which the researcher belongs and this will provide familiarity with accounting practices, culture and understanding of the political and economic background of the companies. This is also an opportunity to investigate the western established technique "RPE" in a non-Anglo Saxon culture. Moreover, the Egyptian economy has been shifting -since the mid 1970's- from a centrally planned economy to free market economy with an on-going privatisation policy and an increasing role for the private sector in the national economy. It is expected that the state- owned companies and privately- owned companies would have different systems, business environments, strategies, controls and cultures and it is hoped to explore these differences.

Eisenhardt (1989) argues that as in theory- testing research, the concept of population is crucial because it defines the set of entities from which the research sample is to be drawn. From this population, cases are chosen for theoretical -not statistical- reasons. For example, cases may be chosen to replicate previous cases, extend emergent theory or fill theoretical categories and provide examples of polar types. Eisenhardt (1989) concludes that while there is no ideal number of cases, a number between 4 and 10 cases usually works well. With fewer than 4 cases, it is often difficult to capture complexity and it is likely to be unconvincing, unless the case has several mini-cases within it. With more than 10 cases, it quickly becomes difficult to cope with the volume of data. Ezzamel and Willmott (1998) developed 6 intensive case studies and reported 2 of them in their paper about accounting, remuneration and employee motivation in the new organisation. They focused on 2 cases because they obtained intensive data from these organisations which were also fairly large with enough sub-units to exhibit variation. They argue that by this choice, they sought to explore fully the details and dynamics of remuneration schemes or relate them to specific contexts.

Therefore, in order to cover the two environments which were planned to investigate (Egypt and England) and in order to gain a varied and diverse picture and to allow comparisons, a plan was designed to develop 6 cases, 4 from Egypt and 2 from England for the following reasons. Firstly, for Egyptian companies, because of a lack of information about companies practices in remunerating management, it was not possible to identify a population or to decide which companies to examine. Nevertheless, the objective was to allow chance to "catch" at least one company which might be using RPE. To help with this plan, the researcher thought to target those companies which are known to be involved in local and/or international competition with big enough size and rich practice to evolve a variety of units, activities, ...etc. There were three companies with these features: Ceramic, Dairy and Steel companies. This proposed selection was complemented by targeting Trade company which was well known as an old public company selling heavy machines (e.g. farming and construction machines). The choice of Trade was built on two bases: access and being a public company which was expected to enhance the variety of patterns of practice explored in the case studies (because the ceramic and dairy companies were private and the steel one was a joint venture with Japanese institutions).

Secondly, for the UK part of the field work, it was initially planned to investigate the practices of RPE in a sample of 2 UK companies (out of the 20). One of the companies - at least- should:

1) Practise RPE

2) Use various measures of performance (financial and non-financial) if possible

3) Use stock market measures for performance

4) Use various forms of paying rewards

The notion behind stating the first four criteria was to allow a study of the research arguments (such as using RPE and what measures, rewards and variables affect it) that constitute the core of this research. Late in this chapter, the research activities in each environment will be presented.

(5.4.2) Tools for collecting the data

(5.4.2.1) The outline of the questionnaire

The questionnaire was designed to explore and explain both the facts and attitudes of employees at various levels, about the performance management in general and RPE and its contingents in particular. It should be mentioned here that both actual and hypothetical experiences were targeted in this survey (i.e. if they have an RPE system, if they do not, and why). I also planned to obtain feedback from various parties; those who design the control systems and those who are "controlled" by these system, at various managerial levels. It was of particular interest in this investigation to recognise the factors which would/ affect the design and implementation of RPE and the performance management systems in general.

More specifically, the main objectives of the questionnaire were:

(1) to gain a wider understanding of the practice and the rationale of measuring, evaluating and rewarding performance in each company.

(2) to explore the specific factors (either organisational, environmental or personal) which affect these practices.

(3) to highlight employees' perception of RPE, whether it is used in their company or not, why and how they implement it.

(4) to examine the research arguments about the contingents of RPE (i.e. the influence of targets' difficulty, performance measures and reward form on responding to RPE).

(5) to frame further issues which might affect RPE (other than those mentioned above).

(6) to obtain feedback from various managerial levels.

The final version of the questionnaire which was used in Egypt consisted of 26 question in 5 A4 pages. It was divided into three parts: general information about the respondent, RPE perspectives and contingents. Each part concerned specific issues starting from the more general to the more specific (Appendix B-2). The questionnaire was developed and tested in a pilot study among Business and Law colleague researchers, some banking practitioners and steel industry engineers (where I conducted one of the case studies later). Over a period of nearly 7 months, both the content and wording of the questionnaire was assessed in the light of the pilot's feedback and intellectual development. Each question was modelled so that it was as short, precise and understandable as possible. The questionnaire carried the instructions and a space for the respondent to write any comments. The questionnaire was described by one of the pilot respondents as being "straightforward" and I have not been informed of any difficulties regarding the time taken in answering it. This suggests that its size was quite reasonable but some engineers reported that they did not understand some technical terms expressed in accounting language (copy of this piloted questionnaire is provided in Appendix B-1) that was attended to later.

(5.4.2.2) Variables and Measurements

This study explores the managerial perception of RPE, its rationale, design and outcomes. Therefore, PRE -the key variable- was measured according to the total of the respondents answers about the extent to which they think RPE can motivate them to work harder and can monitor/ reveal the effort which they spend in the job. Both roles were suggested in the literature and the data showed a significant correlation between them, which suggested that when motivation increases through RPE, its ability to monitor employees' effort increases. The following table shows how each variable was measured in the questionnaire:

Table (5-1) Variables and Measures

Variable	How measured
Potential of RPE	Do you think rewarding upon the relative performance can help in: -motivating the employees to work hard. -indicate the real effort of the employees. - others, please specify
Objectives sought from work	What are the objectives which you seek from work : (please tick as appropriate) -money -gaining esteem -creativity and innovation in performance - Others, please specify
Preferred Performance measures	Do you think your work is well expressed in: -financial terms [such as: cost, profit ...] -non financial terms [time, quality, accuracy ...]
Preferred Reference group	Do you think that your peers should belong to: -the same company -companies in the same region -the same industry -the best 100 company nation-wide -others, please specify
Preferred Reward form	- How would you prefer to collect your rewards on RPE -cash -shares -deferred pay (e.g. post retirement benefits) -holiday and welfare -others, please specify ...

* Questions to be answered on a 5 point scale ranging from strongly agree to strongly disagree.

The investigation described different practices among the three companies in terms of the control systems generally and the RPE specifically. The following table presents briefly the control practices in the three companies followed by a detailed account of the individual companies including the company's background and a summary of the control system in use.

(5.4.2.3) *The interviews*

The purpose of the interviews was to "explore" the rationales and the context in which RPE was applied. Many researchers in the domain of management accounting discussed this role for the case study (Otley &Berry 1994, Scapens 1990). The interviews were semi-structured, guided by the research questions. However, the interviews also aimed to detect the interviewee's experience, point of view about the control practices generally, RPE –if used- why used, what factors affected that use, how did the interviewee and his colleagues/ managers see targets, performance measures, rewards and the rationale behind these practices. A copy of the interview guide is provided in Appendix (B-4). A special point of concern here was to collect examples, explanations or experience from the company's history or from the participant's own experience in other companies with the control system and performance systems. This issue was particularly important to investigate the context of the company's practice and to draw any comparisons between different companies. The following part reports on the actual access and research activities undertaken in this study.

(5.4.3) Access and research activities

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This section reports –individually- on the participating companies in Egypt and England, sources of data that were made available to the researcher, the research activities that were undertaken, key facts about the companies and a summary of their control practices.

(5.4.3.1) Section One: Egypt Field Work

The Participating Companies in Egypt

Efforts were made from the researcher to access the 4 companies as planned; "Ceramic, Dairy, Steel and Trade", supported by an introductory letter from Cairo university which explained the researcher's post there, mission and seeking participants' co-operation.

Access was granted from the Trade, Dairy and Steel but denied from the Ceramic company for lack of time. However, three companies co-operated in providing data, as detailed in chapter six.

The contingency theory framed the case study approach in collecting the data from 3 Egyptian companies. In order to maintain confidentiality and anonymity -as promised to the participants - and in order to avoid ambiguity or confusion in this thesis, the investigated companies will be given the following dummy names: "Trade", "Dairy" and "Steel".

The research design included a questionnaire, semi-structured interviews and documentary material as sources for collecting the data. The companies provided the researcher with financial reports and reports about activities, which had been prepared for internal and external uses. These documents reported not only the financial results but also the reasons behind them, any problems the company encounter/ed, current position and future outlook. For Steel company, the researcher also depended on the data available on the internet about the company, its background, its linkages with international Steel organisations and its undergoing projects which the company implements within the expansion strategy (Appendix C-1).

The questionnaire consists of variety of forms (for example, factual questions, attitudes questions and " other factors" that might be related to the point but not considered by the researcher. The questionnaire consisted of two main parts: first: questions about objectives from work and the potential of PRE, second: questions about the preferred target/ peer group, measures and rewards. Table (5-2) summarises the key facts about the three Egyptian companies which agreed to participate in the study.

Table (5-2): Key Facts about the three companies

Variable	company (1) Trade	company (2) Dairy	company (3) Steel
- Ownership	-public	-private (Egyptian)	-joint venture (Egyptian and Japanese investors)
-Activity	-import and export, heavy equipment	-dairy products	-steel
-Foundation date	-1927	-1989	-1985
-Financial position	-financial losses and overdrawn recently	-strong, growing	-strong, expanding
-Market they work in	-national + few transactions with Arab countries	-national only	-national and international
-Competition	-strong, national	-strong, national	-strong, international
-Benchmarking	-not used	-used to evaluate top management only	-used to monitor the firm against international steel producers
-Rewarding upon comparisons 'RPE'	-not used	-used for top management only, irregular	-not used

The first Company is 'Trade" company works in importing and exporting mechanical and electric equipment, 2500 employees and £ 840 million turnover and 70 years experience but achieved losses in the last three years (95-98). The second company is "Dairy", one of three companies that dominate the local dairy market, privately founded in 1989 with a capital of £60 m and 850 workers, 7 factories, a complicated marketing and distributing network and with exports to Arab countries. The third company is a Steel company founded in 1985 as a joint venture company between Egyptian public sector industrial and financial companies, Japanese investors and shareholders. It has and continues to benefit from the strong technical support of its Japanese partners, and the consultancy arrangement it has with the British Steel Corporation. The company has over 3,500 employees and its production covers nearly 50% of the national demand (80% of their production) the rest is exported to the USA, Germany Italy,...etc. The head office, departments and the five factories located in Alexandria. One of the unique features of this company is that it does not have any female staff! The following table provides a summary of the control system in the three companies before presenting the questionnaire's outline of this research.

Table (5-3) the control system in the three companies

Item to compare	company (1) Trade	company (2) Dairy	company (3) Steel
1. Setting targets:	-financial only, departments participate. -a higher set of targets used for motivation	-sales department starts estimations in financial and non financial terms then other follow -competition is carefully considered -higher levels used for motivation	-each department gives estimations in financial and non financial terms -higher levels used for motivation. Previous achievements are the minimum level for new targets
3.Evaluation system: -span of time of reviews	-comparing actual performance with: -targets -previous performance respectively. -monthly and annual review	-comparing performance with: -targets -national competitors -best performer in the decision -monthly, weekly review (and daily for sales staff)	-comparing performance with: -targets -previous performance -other departments -international steel producers -monthly, quarterly and annually review
4.Rewards*	-upon meeting targets, if targets are missed, rewards missed as well -paid monthly in cash. some non financial rewards awarded for top management only. -no fines -no internal comparison -no external comparison	-different rewards designed for different levels of meeting targets -mainly in cash + some in non cash paid monthly -fines imposed for negligence or losing customers -some rewards upon internal comparisons with the best performers -some rewards for top management upon comparison with competitors.	-rewards upon meeting targets, if targets missed, rewards missed. -mainly in cash, some non cash (travel, learning opportunity ...etc. - no fines - no rewards on internal comparisons - no rewards on internationals comparisons
Use of RPE: 5.Factors affect RPE:	- RPE is not used -governmental interference and controllability problems	-RPE is used -growing and competition in the food industry	- RPE is not used -expansion, exporting and the international competition in the steel industry

The sample; response and interviews

The study was conducted during the summer of 1997. Access was successfully negotiated with three companies. Two research tools were used, interviews and a questionnaire. The interviews were used accompanied by an examination by questionnaire and internal documents. A Demonstration of the structure, implementation and output of the interviews is given separately in this report.

All questionnaires in the three companies were handed[2] to the participants in each company upon suggestions from the department which negotiated access. Also questionnaires were collected by hand from the research sites. The reason for this delivery by hand rather than posting questionnaire was that the latter route was not usable in this environment nor was it reliable. The researcher's presence there probably be a matter of practising a type of "social pressure" on the participants. That might create interest and a feeling of self- esteem because others' seeking his/ her experience. The following table summarises the research endeavour on the research sites:

Table (5-4): summary of the research activities in the four companies

Company name	Number of Questionnaire: Distributed	collected	% response	Interviewee's post	number of Interviewee's	Meetings' number	Meetings duration
Trade	85	36	42	Planning & follow up manager Planning & follow up manager assistant Importing officer Maintenance engineer	4	5	7 (hours)
Dairy	65	21	32	Managing director Marketing director Delivery chief- Northern Area	3	4	4
Steel	90	14	15	Operations manager Production control officer Galvanisation division manager	3	3	5
Total	**240**	**71**	**29.5**		**10**	**12**	**16**

(5.4.3.2) Section Two: England Field Work

Choosing the company, access and research activities

2 The questionnaire package which was submitted to the "gatekeeper" in each company included:
*An introductory letter from Cairo university describes the researcher's post there, her mission in the company and seeks participants' assistance (copy in Appendix B-5).
* A cover letter from the researcher explaining briefly the research topic and the issues she was investigating (copy in Appendix B-6).
* A copy of the questionnaire (Appendix B-2)

The questionnaire package which was sent to the ordinary participant did not include the introductory letter. However, the cover letter which was used with all questionnaires included information about the researcher's post in Cairo university.

All the 20 companies were contacted by the researcher to determine the best person to start the investigation with. Ideally, this should be the member of staff who was directly responsible for the remuneration systems. Access was negotiated with the potential companies but no progress was made except with Yorkshire Electricity and United Utilities. Lack of time and lack of willingness to participate in the research were behind denying access.

Both Yorkshire Electricity and United Utilities worked in multi utilities (gas, electricity,...), in the same geographical area "The North of England" and both were big companies. United Utilities satisfied the 4 criteria for a company to participate in this research; it used RPE, with financial and non-financial measures and rewards. Yorkshire Electricity was known to the researcher as one of the 20 companies which used RPE before actual visits to it took place.

In Yorkshire Electricity, the identified head of remuneration division asked for confirmation that the researcher belonged to Sheffield Hallam University. After given it, an interview was arranged with the researcher in the company's corporate centre in Leeds. The interview was tape- recorded with the approval of the interviewee. That interview exposed the researcher to some aspects in the process of evaluating the directors specifically. Nevertheless, at that time, Yorkshire Electricity had just been taken over by an American company which had dramatically changed the control system and Yorkshire Electricity was not using RPE any more. However, many reasons led to a decision not to draw a case from the company because:

1) Limited data were gained because the interviewee had limited knowledge about the remuneration practices apart from those at the directors' level and the wider practice of performance management.

2) Any attempt to identify and arrange interviews with other relevant individuals failed.

3) The interviewee responded to the researcher's wish and offered to distribute a limited number of the questionnaires (5 or 6 only) in his company, replies for which were never received.

For all these reasons, it was thought that there is no purpose in pursuing Yorkshire Electricity.

Negotiating access to United Utilities was successful right from the beginning. After identifying the group director of remuneration and pensions who was responsible for the remuneration (in May 1997), the first interview was arranged by my supervisor to take place in July 1997 in the group headquarters in Warrington (near Manchester). The interview lasted about an hour and a half and was witnessed by my supervisor. The interview was tape- recorded upon approval from the interviewee and the researcher took some notes as well. The interviewee offered the researcher some internal documents titled "Performance Management- Guidelines for Managers and Staff" (Appendix D-1). It was agreed in the meeting that there would be further contact to arrange other meetings and to plan the distribution of the questionnaire in the company. From May 1997 to the Christmas 1998, there were many attempts by the researcher and her supervisor to contact the interviewee but in vain. After the Christmas 1998, communications successfully allowed the arranging of another meeting with the same subject in February 1998 with the researcher only in Hallam University and lasted about 2 hours. The interview was tape- recorded and notes were taken as well. In that interview, the interviewee offered to a follow-up contact to arrange some more interviews with other members of staff (some of whom are rewarded under RPE and some are not so that a variety of managerial levels would be maintained). Furthermore, it was agreed that the researcher would send copies of the questionnaire to the interviewee who would take the responsibility of distributing them within the company with a memorandum to show the company's formal support for the research. The questionnaire was sent –as agreed- and the researcher started to receive replies on Aril 1998. The interviewee had advised the researcher earlier to keep the length of the questionnaire to a "reasonable" size. The reasonable length was judged by the interviewee to be 4-5 pages and the number around 60 copies. The researcher had to accept and keep these terms. The group director of remuneration and pensions handed the responsibility for administrating the questionnaire and arranging for further interviews to the group personnel director. The group's personnel director efficiently ran the administration process of the questionnaire but arranging more interviews was not similarly successful. At that time, the group remuneration and pensions director revealed that the situation in the company was sensitive because it coincided with his receiving the result of RPE (which was carried out by an external agency) and it showed that two of the senior management members were at the end of the ranking list as one of the executives would simply go!. The remuneration director expressed some worry that interviewing some of those individuals at the time before they knew the results of the process would probably raise many speculation in the company or those individuals might give some feedback which was coloured by this impression of the recent evaluation process. On the other hand, the personnel director (who was the gatekeeper of the data collection) insisted on contacting the possible interviewees before the researcher got hold of them. However, for all these reasons and in spite of the researcher's many attempts to enhance the data by more interviews, she had no further success.

The questionnaire which was distributed in United Utilities, was accompanied by a letter from the researcher, explained the research themes, sought co-operation and emphasised confidentiality (a copy of the letter is found in Appendix B-7). The questionnaire contained the same questions as used in the first part of the field work in Egypt, except for some changes (the two versions of the questionnaire are provided in Appendix B-2 and B-3). These changes were undertaken after doing the first part of the data collection. The reasons for making these changes were to develop the data collection tool to capture more, specific and related data and to stick more tightly and precisely to the arguments.

(5.4.4) The Research Objectives

It is hoped that the following objectives would be achieved in this research:

- to gain knowledge about the potential of the relative performance evaluation as an evaluation technique.
- to identify the individual, organisational and environmental context within which this technique functions.
- to tackle the recognised weaknesses in the previous studies of relative performance both at the theoretical and practical level. Specifically because the previous studies on the RPE in the UK (Conyon and Leech 1994, Conyon & Gregg 1994) were conducted on published data and the only evidence about practice of RPE was collected depending on statistical regression of the relationship between pay and performance. The experience of the companies with the RPE has not been explored or analysed before. Therefore, an attempt will be paid to test the theory behind the RPE and its context.

(5.4.5) The research's potential contribution

It is hoped that the research offers the following contribution:

* Extending the studies of RPE by opening up new arguments about the mechanism of the RPE, its abilities and its context, which peers, which measures, which incentives).

* Introducing new variables in the analysis (targets difficulty, performance measures, form of rewards) and new structures about the previously investigated variables.

* Addressing the arguments within the contingency theory framework rather than agency theory which frames the literature.

* Releasing the basic argument from the economic dominance and handling the debate with the accounting content of performance- pay relationship.

* Testing the questions by a survey/ case study whereas most of the previous studies have depended on archival data. The Academy of Management in 1996's conference of "Managerial Compensation and Firm Performance" sought this attitude.

* Obtaining feedback from different parties involved in the system (appraisees and appraisers; different managerial levels) which have not been investigated before.

(5.4.6) The research limitations

There are many factors which put various limitations on this research, among these are; the time-span, academic background and resources; the requirements for keeping the research focused and under control. These factors altogether led to selecting the identified variables (i.e. target's difficulty, type of performance measures and type of rewards) to be investigated. Nevertheless, It is not denied that there could be many other variables that might influence the phenomenon under consideration such as risk preference, degree of competition,...etc. A second boundary in this research is that, handling the argument about RPE within an accounting domain, the researcher is aware that the phenomenon have many other aspects that can be discussed within economics, behavioural and managerial perspectives. I have come across some of these treatments while doing the literature review. This highlights that RPE is a contentious topic and there are many argument regarding the perspective within which it is selected to be debated. It also framed the dimensions or aspects which emerge from it (such as enquiring what is the impact of time on the potential of RPE, the impact of national culture, the scope of applying RPE, can it extend to international level). The researcher could identify many arguments while doing a critical review of the literature to select some arguments to be examined among them. A third influential constraint on the study is that it has been assumed that employees are one homogeneous group without identifying differences as to the managerial level, attitudes,...etc. The researcher is aware that this variable like the other omitted variables can have an influential effect on the RPE. Finally, any interaction is recognised to be possible between variables and could be possibly be influential; however, any interaction has been dismissed in this research.

Summary

Looking at RPE as a control system, this chapter focused the research arguments in: whether RPE could motivate employees to improve performance, by which content and in which context. More specifically, the arguments centre around: whether RPE could motivate employees, what is the impact of the perceived difficulty of the peer group on the response to RPE and what is the impact of the different measures of performance (financial and non-financial, market measures and accounting measures) and varying rewards on RPE.

These arguments were planned to be tackled within contingency framework using a case study method. It was thought that this would fulfil the potential contribution (along with the genuine suggested arguments and framework). However, case study might generate limitations on the generalisation of the research findings. This restriction, was remedied -partially- by implementing multi- case studies (three companies granted access in Egypt and one in England) and by using interviews and questionnaire to collect evidence in the investigation.

The following three chapters report the field work, analysed on multi levels. This starts with chapter six which provides an individual account of each of the three Egyptian companies including the company's background, performance measurement system and data collected from various sources regarding RPE.

Chapter Six
Egyptian Data - Individual Case Studies
Presentation, Analysis and Commentary

Chapter five focused the research arguments on whether RPE is motivating and whether and how the difficulty which employees perceive related to each peer group, could affect their response to RPE. Also, what is the impact of measuring performance in financial and non financial terms, using accounting measures comparing to market measures and varying rewards on RPE. The research epistemology is proposed to be anti-positivistic where the knowledge about RPE would be built upon the data which the subjects involved (i.e. employees and their superiors) would provide. This could allow an exploration of the perception and experience of both employees and their superiors, the rationale and experience with RPE from the subjects involved. Contingency theory was selected as a framework to examine the content and context of RPE and the factors that might affect applying RPE or not, for whom, on what bases and in which circumstances. Case studies method is the tool by which the research will be implemented and interviews and questionnaire were prepared to collect data from four organisations (three granted access in Egypt and one in England).

This chapter reports the data of each case study in Egypt (which were collected by various tools: questionnaire, interviews documentary material). For each case, the presentation includes an outline of the company's history and background, a summary of the performance measurement system, an account of the questionnaire data and observations from the interviews data which distinct the practice in the company from the other companies. A note to be made here is that, the presentation will confine to a separate account for each company, with no attempt to compare these accounts or practices because that will be done in chapter seven. The other point to be mentioned is that, no attempt would be made in this chapter to discuss, interpret or relate the findings to the literature, as chapter eight will be allocated for this purpose.

Part One

Presentation and analysis of the Individual Case Studies

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This part starts with demonstrating an account of each company. This includes a summary of the company's background, its control system, a presentation of the data from the questionnaire and from the interviews. It should be stated here that all financial figures in this chapter -for the Egyptian companies- are in Sterling.

(6.1.1) Case (1) The Trade Company

Background of the Trade Company

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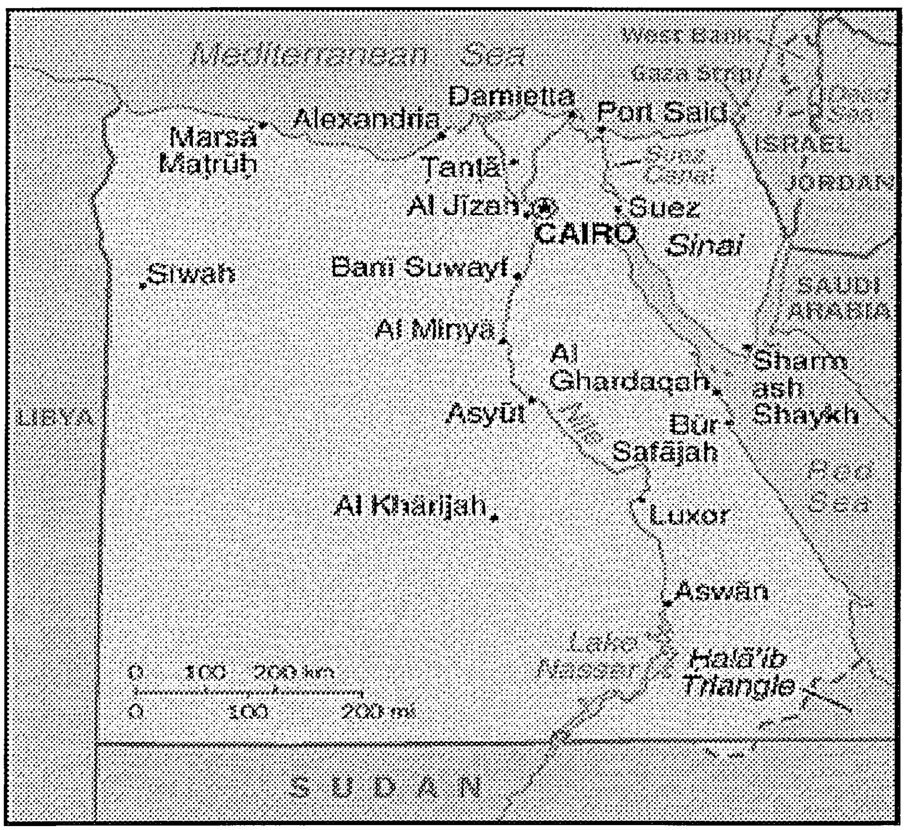
Data collected from Trade company' reports, internal reports and reports of the Ministry of Administration of Public Sector and the Chamber of Commerce, show that Trade company is a subsidiary retailer belonging to the public sector. It was founded in 1927. It is 100% owned by the state and operates through branches all over the country but it is run by a corporate office in Cairo. The capital in 1996 was £80m and the number of employees was 2,440.

The company was established originally to provide tractors and other farming machines to local customers. Its activities were expanded over the decades from importing farming machine to importing and exporting variety of mechanical and electric machine (e.g. construction machine, house appliances,...etc). In parallel to that, the company works in the repair and maintenance services and engineering construction. Among the increasing operations of the firm are distributing the products of local factories. The company also supplies plants' machinery, air-conditioning and cooling appliances, irrigation and drainage stations and public utilities. Recently, the company adopted a policy of diversifying activities and started to operate in reclaiming the desert.

Geographically, the company operates nation- wide and exports the industrial products of local manufacturers to some Arab countries as well. In spite of the financial difficulties which the company has been suffering from over the last three years, it has a long history in providing heavy equipment, especially farming machinery. At some time in the past, it not only dominated the national market but was monopolising the market of supplying some for these products.

The organisational structure is both functional and geographical. Therefore, the company is divided into the following departments: sales, importing, exporting, maintenance, finance and administration. The sales department is divided geographically into branches: Cairo, Alexandria, Suez Canal region, Delta region and the Southern region (please see map of Egypt below). The departments are divided into divisions -if the volume of work allows, for example: the importing department consists of commodities' divisions; e.g. tractors and other farming machines, heavy equipment, electric appliances ...etc.



Current Financial Difficulties

In the financial report of the company for the fiscal year 1995/1996, the company reported achieving losses and accompanied this by some potential reasons for this negative financial performance, these factors are summarised below:

Difficulties emerge from several current governmental policies:

- The change in the economic policies in recent years from adopting a centrally planned economy to a free market economy led to a contract in imports for other governmental sectors during 1995 and 1996.

- After liberating external trade, some international suppliers have cancelled their contracts with the public agents and moved to private companies to be their agents.

- Deflation, stagnation and the current shrinking policies, which dominate the local market negatively, impacted on the activities of the firm.

- Another aspect of deflation, is the failure to launch new projects/ factories by the state and leaving that mission to the private sector. This has decreased the company's share in the foreign trade's market.

- The flexibility which the private sector's work environment enjoys comparing to the restricting commitments of the public sector especially in compiling to the rules and regulations.

The report also included the following issues as problems relate to the company itself:

- Dependence on external sources of finance and huge interests have raised the costs in spite of the decrease in profitability rates because of deflation.

- Over-employment in the company due to the merging and take-over processes that have happened in the recent decades.

- Despite these difficulties, the company has managed to increase export operations on behalf of other public units, especially to Saudi Arabia.

The Performance Measurements System

In Trade, targets of performance were set by departments' participation and a committee at the top level revised estimates, which took into consideration the general market trends. When the budget was approved (i.e. how much surplus was aimed at), it was subdivided into activities (importing, exporting for sister public units, distribution for local producers, reclaiming the desert, maintenance service,....etc) and divisions (target for the finance department, purchasing department, sales department ...etc). Sales were the leading activity in the planning process.

In order to motivate employees, another version of the plan -usually higher than the expected plan- was announced to employees. Targets were drawn in financial terms only, the idea was that ultimately, non-financial goals such as quality, customer services, etc. should have some financial echo. Consistent with targets; performance was measured in financial terms only, even for services departments such as maintenance. Performance was compared monthly to the budget -only- and employees were rewarded accordingly in cash (in addition to the basic salary). However, There were some non-monetary items (e.g. holiday, car...) which were limited only to top management and not related to the level of achievement. Table (6-1) below shows a summary of the questionnaire data of Trade company. It should be recognised that, in all the tables which present statistics in this chapter:

1. % of agree = % of respondents who agree and strongly agree to total respondents
2. correlation between a variable and RPE is Spearman correlation coefficient
3. sig** = p= .05
4. sig* = p=. 10
5. all correlation relationships should be assumed positive unless otherwise specified
6. The respondent's ranking of peers' difficulty was translated into the same categories used in England data to describe difficulty. That is, giving a peer group rank "1", was translated to "easily attainable", "2" = difficult but attainable, 3 = extremely difficult and barely attainable and "4" was for too difficult and unfair.

Table (6-1) Trade questionnaire data about "Accepting RPE, its objectives and elements" (N= 36)

Variable	RPE	Roles of RPE		Objectives from work			Peers from			
		Motivation	monitoring	money	esteem	creativity	same co.	same region	same indu.	top 100
- % of agree	44.5	61.1	50	80.6	30.6	27.8	61.1	65.6	41.7	38.9
-correlation to RPE				**.44***	.24	.30	**.41****	**.32****	.023	-.13
-sig. of correlation				**sig.****	non	non	**sig.****	**sig.****	non	non
♦Regression's parameters:										
B				.673			.338	.322		
Beta				.519			.287	.235		
Constant				4.821			4.942			
R				.519			.431			
R square				.27			.186			
Sig of F				**.002****			**.05****			

Variable	Performance measures		Accounting vs. market measures		Rewards				
	Financial	non financial			cash	shares	post retirement benefits	holiday	work conditions
- % of agree	77.8	77.8	69.4	22.3	86.2	38.9	25	30.6	52.8
-correlation to RPE	**.32****	.006	.23	.03	**.29**	.09	**.39**	.11	**.39**
-sig. of correlation	**sig.****	non	sig*	non	**sig.****	non	**sig.****	non	**sig.****
Regression's parameters:									
B	.767	.100	.243		6.78		.368		.256
Beta	.451	.065	.129		.000		.317		.264
Constant	3.967		6.307		5.893				
R	.481		.129		.498				
R square	.231		.017		.248				
Sig of F	**.02****		.48		**.04****				

Peer group Description in terms of difficulty	Peers from the same company	Peers from the same region	Peers from the same industry	Peers from top 100 companies
Peers best described as	Easy and attainable 47.2%	Difficult but attainable 33.3%	extremely difficult and barely attainable 27.8%	Too difficult and unfair 27.8%

♦ The regression equations are: (a) Objectives from work and RPE is: RPE = .673 Money + 4.821
(b) Peers and RPE: RPE = .338 peers from the same company + .322 peers from the same region + 4.942
(c) Financial and RPE: RPE = .767 Financial measures + 3.967
(d) Form of rewards and RPE = 6.78 cash + .368 post retirement benefits + .256 work conditions + 5.8

Observations from the questionnaire:

Table (6-1) above indicates that 44.5% of the respondents of Trade agreed on RPE as a motivational and monitoring tool. In doing so, the respondent sought to receive the money (80.6%) which it might provide. The respondents reported that the most preferable peer group under RPE was peers from the same region (65.6%) and then peers from the same company (61.1%). The assistant of Follow-up department who was interviewed, indicated that, being a retailer, the company was concerned about competitors who operated in the same geographical area. In terms of describing how difficult it was to compete with peers, 47.2% ranked peers from the same company in the 4th position which was the code of "easily attainable", while 33.3% ranked peers from the same region in the 3rd category "difficult but attainable". 27.8% classified peers from the same industry in the 2nd place as "extremely difficult and barely attainable" and a similar percentage of respondents put peers from the top 100 companies in the 1st place as a "too difficult and unfair" target. Spearman correlation shows a significant positive correlation between RPE and difficulty in competing with peers from the same company (at p= 5%) and with peers from the same region at (p =7%). With regard to considering "peers from the same industry" unattainable target, the Planning and Follow-up Manager of Trade clarified that according to the public sector's structure, the company belonged to the heavy industries group. That group contained mainly manufacturers of machines and equipment whereas Trade was only a retailer that dealt in those products. This suggests how difficult it would be for Trade to compete with other companies in the same group.

There was an equal preference for Performance to be measured by financial and non financial measures (77.8%), but only the financial measures were correlated to RPE. This preference for financial indicators could be because respondents considered them controllable (41.6%), accurate (76.7%) and time-related (38.9%). These features were positively and significantly correlated to the financial measures and to RPE whereas only controllability and accuracy where correlated to the non-financial measures as well, but the correlation coefficients were higher for the financial measures. Within the financial group, accounting-based indicators gained more approval than market-based in terms of controllability (69.4% to 22.3%) and were also found significantly correlated to RPE.

The respondents also preferred the RPE reward to be in cash (86.2%), post-retirement benefits (25%) and better working conditions (52.8%) and 69.4% agreed that varying the form of reward would enhance RPE. The follow-up division manager in Trade, his assistant and the maintenance engineer reported current poor work facilities and conditions in Trade, which might be the reason why having better working conditions as a preferable form of rewards.

The Manager of Purchasing Farming Machines recorded that, some factors should be examined when considering RPE schemes such as: achieving the department's objectives, measuring the various aspects of performance (e.g. quality, time, co-operation). Also the Customers' Accounts Manager considered, companies should have control over their decisions (i.e. the decisions should be intrinsic), they should not be imposed from any external forces upon the firm. Middle and lower management showed concern for the operational side of RPE for example, the Exporting for Local Suppliers' Officer raised issues like similarity in companies' operations, location, financial situations and the employees' jobs, work load, experience and work environment (participation, ...etc) should be investigated. The Inspection Officer and Foreign Suppliers' Administrator, who participated in the questionnaire enquiry, recommended that RPE be held intrafirm among departments and divisions because they would be sharing the same work environment. However, The Follow-up Assistant Manager raised some suspicion about RPE. He argued firstly that the whole point of benchmarking and competing with other companies applied to a financially healthy companies not to those who struggled to overcome losses and had difficulty achieving their own targets. Secondly, in operational terms, how could a firm get information about the performance of different employees in other companies? How could similarity in the bases for measuring be secured while each company used different measures to monitor that performance. That was not the case for top management because the company's performance could be taken as a surrogate for top management's performance. Similarity in measuring the companies' performances could be secured by a minimum compliance with professional standards. Therefore, RPE -by definition- seemed applicable to top management only.

Observations from the interviews

Sales lead planning:

In Trade, the leading activity in providing the estimation was sales and the purchasing; production and finance were planed accordingly. This pointed at the centre of attention and the nature of activity. Trade company is a retailer where goods are bought (mainly from foreign suppliers and sometimes from local producers) centrally in Cairo and distributed all over the country without any conversion operation-taking place in it.

Therefore, sales was the dominating activity as explained by the Head of the Follow -up division in Trade:

> We always have one objective: profit, and sales equipment and machines is the activity which provides 95% of our profit, the rest of the activities in which the company is involved (such as providing maintenance services, training,...). Recently the company started to involve in reclaiming the desert to distribute risk and seek new areas for making profit to help with the current financial problems. This latter activity probably contributes 5% to the profit. Thus, we focus on the sales activity.

Attitudes towards RPE:

In Trade company, RPE was not applied and 3 out of 4 interviewees rejected it for various reasons. For example, the Planning & Follow-up Manager refused it because of the pressure and difficulties staff experience currently and because there was no local equivalent peer to be compared with it. The Follow- up Assistant Manager had a stronger view about RPE:

> There is a big diverse in pay and in the conditions under which people work in the companies which belong to the same sector. ***I refuse the comparison.*** If the company announced that there would be rewards based on the competition with other companies, I do not think this would motivate the employee to work better. There should be stability in our company's policies & strategy first.

The Importing officer refused RPE because the company had suffered losses currently and in his view was not in a condition to compete with others, however, he suggested an alternative version of RPE which was internal comparisons. The only interviewee who accepted RPE was the Maintenance engineer who considered that it would feed competition and produce improvement by learning from successful peers.

Attitudes towards the components of RPE scheme:

The maintenance engineer in Trade supported the argument that RPE could play a motivational and monitoring roles especially when performance was measured in both financial (but not market) and non-financial terms where that would reflect all aspects of his work. However, no approval was recognised for a positive impact of varying rewards on RPE. The maintenance engineer preferred the non-monetary type specifically houses or accommodation. He argued that:

> "The company could try to get a number of units for staff in the new cities and when it negotiates for many individuals, it might get a good deal, good conditions more than what individuals would come up with if they did that individually".

Non financial measures in a service industry:

In Trade and in consistency with setting targets only in financial terms, performance was measured only in financial terms for all departments. The Follow-up Manager considered that quite suitable for a retail company sought profit from all departments including service department. Another point he mentioned was that using financial measures only was another "imposed" practice by the parent company. That was because those measures were seen as helpful in comparing the companies with different activities, which the parent company governed. Nevertheless, still in Trade, some staff saw that some aspects of their work should be better expressed in non-financial terms. As the Importing Officer commented:

> Performance is measured is financial terms only now, but personally, I wish other types of measurements were used. For example, there are some aspects of my work, which are not less important than the financial ones such as accuracy, expanding the scope of investigation When considering the suppliers' offers, the degree of analysis and the amount of data upon which a/ supplier/s is/are selected, ...etc.

Implications of being a public company:

The four interviewees highlighted some implications of Trade's being owned by the state. First, the state interfered in: setting targets, the control and monitoring reports to various supervisory bodies and using the unified accounting system. The Assistant of Follow-up Manager argued that:

> "My company (due to some importing transactions with Eastern European countries) has suffered losses and we have not receive our rewards accordingly although we work hard and **we are not responsible for the reasons or policies** which led to these losses. The losses have been occurring for 3 years. If the impact of these decisions which are imposed on us had been removed, we would be doing well (and it is being removed for the purpose of tracing the corporate performance over time but not for the purpose of rewarding)".

(6.1.2) Case two: Dairy company

Background of the company

The data collected from the company's reports and the interviews with the managing director and the marketing manager reveal that the company was founded in 1989, the capital is now £60 m and the labour force is 850 workers. The company is privately owned. The main products are white cheese, Mozzarella, Cheddar and Cream cheese. When the company started production in 1989, it began with a type of cheese that a competitor company used to produce using fully automated technology, while Dairy depended on a manufacturing technique which mixed automation and human element. In order to develop different operational plans (e.g. for production, sales and finance) at the beginning of the work, there was no data available about sales or scale of production. The marketing manager suggested that the new product should be tested through a "pilot study" by a specialist agency. The key point, which Dairy wanted to find out was, the customers' view of the price and the quality of the new product along with a comparative analysis for the quality and price in the competitor companies. That is, they started by producing the same product, which the competitor worked in, but of a higher quality and at a lower price. When the test provided evidence that the new product could do well in the market, they started a "sample production". The idea behind this cautious strategy was to test the market and get a true feedback about the performance of the product and how it would be before scheduling the production, marketing and distribution capacities. In order to justify this practice to the board of directors, the Head of the Marketing Department illustrated that the Egyptian market had a very specific nature and was very changeable. The pilot and the test studies revealed the competitor's performance in terms of quantity, sales' price, the strengths and weaknesses. The orientation in Dairy company as declared by the Marketing Manager was to:

> "Learn from the weak points of the competitor and to outperform him even in one point (packing, price, delivery, and availability in different sites far or near, varying in sizes and prices or designing smoother payment schemes if possible."

The strategy of Dairy was to adopt a "penetration policy" when it joined the market for the first time. Dairy discovered then that the competitor was suffering from lack of concern and follow-up when handling customers' orders and irregular services as well. These were among the core points in developing the production, marketing and distribution plans. The company started with three factories in Great Cairo (this includes three cities: Cairo, Giza and Kalyobia) and their own transport and distribution services to market in Cairo and some nearby cities such as Menia and Tanta (see map above). The population of Cairo alone was 12 million people. The feasibility study and investment plan were developed and carried out on the basis of gradual expansion.

The expansion in 1997 was accompanied by completely new production policy. Although the company used to distribute its products in almost the whole of the country (e.g. Tanta on the Nile delta, Alexandria in the north on the Mediterranean, Asyut to the south and Canal cities to the east), all sales was supplied by the factories in Cairo. That caused pressure and sometimes crises with the transport and delivery staff. With annual increases in the Egyptian dairy market following the increase in population, and good performance, the company considered a proposal to launch four factories in Asyut, Tanta, Alexandria and Port Said at the same time. Before any actual production started, the sales staff undertook the task of collecting data about the potential customers in each city who were normally wholesale traders and retail traders. Because the company was already distributing its products in these cities, it held a share of the market there, but the potential was to attract new customers, those who used to buy from the competitors of Dairy. The investigation which the company conducted, covered the needs of the customers in terms of quantity, services which they were willing to receive and services which they actually receive from other competitors.

The Performance Management System

Dairy aimed to gradually dominate the dairy market in Egypt by providing products with better quality and lower prices. In order to translate this mission into annual plans, sales representatives estimated the expected sales of each type of cheese, then plans for other functions (e.g. production, purchasing, finance) were established accordingly. Competition was carefully taken into consideration including what competitors provide to customers, in terms of quantity, quality, price, service, ...etc compared to what the company provided. Quality was "the number one factor" which the company aimed to keep and to improve along with other factors such as quick response to customers' needs, improving services...etc. Performance was measured in financial and non-financial terms for all jobs at all levels and reviewed monthly, extended to a daily basis for the salesmen.

In order to motivate employees, a budget with a 20% rise above the planning budget was announced to the staff. The Marketing Manager considered the 20% a "safe margin" for fluctuations in performance and that plan was successful in achieving the company's targeted figures. However, penalties were imposed for any proven defect in serving the customers. Furthermore, the comparison with performance in the past years served in planning expansion. Rewards were given on meeting targets. Surprisingly, the marketing manager reported that employees in Dairy receive one of the highest salaries in the country (the secured part of the remuneration) and this meant, reward upon achievements (the changeable part of the remuneration) had little to do in motivating them! Rewards were paid in cash and in non-monetary forms (e.g. holiday, car). The figure in table (6-2) below summarises the questionnaire data of Dairy company. The table should be read according to the terms which were identified in page 143 of this thesis. Moreover, caution should be exercised regarding the importance of the regression results of Dairy data because of the limited sample size (only 21 data point). That is because the statisticians warn that regression results for a sample that is less than 30 observations would have a limited importance.

Table (6-2) The questionnaire data of Dairy "Accepting RPE, its objectives and elements" (N= 21)

Variable	RPE	Roles of RPE: Motivation	Roles of RPE: monitoring	Objectives from work: money	esteem	creativity	Peers from: same co.	same region	same indu.	top 100
- % of agree	38.1	61.9	38.1	71.5	14.3	33.3	76.2	14.3	52.4	19.1
-correlation to RPE				**.47****	.02	.07	**.56****	.14	**.47****	.34*
-sig. of correlation				**sig****	non	non	**sig****	non	**sig****	sig*
♦Regression's parameters:										
B				1.123			1.133		.156	.113
Beta				.429			.646		.162	.138
Constant				2.68			1.7			
R				.429			.708			
R square				.184			.501			
Sig of F				**.05****			**.007****			

Variable	Performance measures: Financial	non financial	Accounting vs. market measures		Rewards: cash	shares	post retirement benefits	holiday	work conditions
- % of agree	61.9	85.7	42.9	38.1	76.1	52.4	52.4	76.7	28.6
-correlation to RPE	**.35****	**.60****	**.61****	**.36****	**.60****	**.45****	.14	.o5	.12
-sig. of correlation	**sig****	**sig***	**sig****	**sig****	**sig****	**sig****	non	non	non
Regression's parameters:									
B	.392	.446	.541	.554	.455	.264			
Beta	.346	.33	.533	.067	.367	.27			
Constant	3.747		5.208		4.427				
R	.48		.558		.52				
R square	.23		.311		.271				
Sig of F	.09		**.03****		**.05****				

Peer group	Peers from the same company	Peers from the same region	Peers from the same industry	Peers from top 100 companies
Peers best described as	Easy and attainable 52.4%	Too difficult and unfair 23.8%	Difficult but attainable 61.9%	Either difficult but attainable or Extremely difficult and barely attainable

** p= .05 *p= .10

♦ The regression equations are: (a) Objectives from work and RPE is: RPE = 1.123 Money +2.68

(b) Peers and RPE: RPE = 1.133 peers from the same company + .156 peers from the same industry +.113 peers from top 100 + 1.7

(c) Performance measures and RPE: RPE = .392 Financial measures + .446 Non Financial measures + 3.747

(d) Form of rewards and RPE = .455 cash + .264 shares + 4.427

Observations from the questionnaire

The table above shows that, in Dairy, 38.1% of the respondents approved of RPE as an motivational and rewarding technique. The low acceptance for RPE in Dairy although it was the only Egyptian company –in the sample- which applied RPE, was accompanied by low preference (19%) for peers' comparison as an evaluation technique. The questionnaire data showed that the lowest criteria in evaluating performance, was meeting targets (85.7%) followed by meeting budget (80.8%) and comparing to the past (52.4%). However, 71.55% of the respondents agreed that RPE would generate money for them. That was sustained by preferring peers from the same company (76.2%). Following this, peers from the same industry (which was currently used) was preferred by 52.4% and the peers from top 100 companies 19.1%. In terms of classifying the peers according to the difficulty to compete with, peers from the same company were equally seen as easily attainable (28.6%) or difficult but attainable (28.6%). Peers from the same region were considered too difficult and unfair (23.8%). Peers from the same industry were ranked as difficult but attainable (61.9%) while peers from the top 100 were equally classified as difficult but attainable or extremely difficult and barely attainable (28.6%). However, the total of the "unattainable" ranking of difficulty to compete with peers from the top 100, was 33.3% of total respondents compared to 23.8% for the total attainable. Spearman correlation test shows no significant association between RPE and difficulty of peers.

Respondents preferred the currently used non-financial measures (85.6%) and preferred the financial measures less (61.9%). Regarding the features of measures, comprehensiveness was preferred by 61.9%, accuracy 61.9%, controllability 52.3%, and time-related 38.1%. RPE was correlated with comprehensiveness and accuracy. Financial measures were found positively correlated to accuracy of measures and negatively correlated to time-related (p=.08) whereas non-financial measures were positively correlated with comprehensiveness, negatively correlated to time related and positively to accuracy (p=.10).

Within the financial measures group, controllability over accounting measures was approved over market measures' (42.9% to 38.1%), however, both were significantly correlated to RPE (stronger accounting). This points at the possible impacts of market on RPE. Reward was preferred by 76.1% to be in cash and 52.4% in shares. Better working conditions did not appear in the list probably because they were satisfactorily provided. However, 47.6% agreed that varying the reward of RPE would enhance RPE. The manager of the October City factory of Dairy recorded other roles for RPE such as increasing competition between companies (but this might destroy group co-operation) while the Supervisor of Supplies argued that RPE could motivate employees for higher productivity. Regarding goals from work, the Production Engineer reported that goals from work include "to be part of a successful organisation" and to get promoted.

Observations from the interviews:

Special role for the sales staff:

Dairy is a manufacturing company which deals in dairy products with a short production cycle and a high capability to adapt to market demand. This suggests that the company probably needs to control the sales side of the operations in order to survive. The marketing manager revealed a special interest in the work of the sales representatives in relation to the company's growth:

> The sales representative is the face of the company in front of the customer. I depend on his good regular services to customers as one of the pillars to sustain my growth (along with quality and good price). I also depend on his observations of our strength and weak points and the competitors' strengths and weak points.

The rationale, implementation and relevance of RPE:

Dairy is the only company among the Egyptian companies under investigation which used RPE. In doing so, the company compared its performance to a set of 5 or 7 food producers (its wider industry) including the major dairy companies (its direct competitors). The purpose was to reward the top management by holding them responsible for the company's performance relative to the competitors. Under this scheme, performance was measured in terms of profit and sales revenue and reward was paid in cash at the end of the year in a lump sum (arbitrarily determined). However, this practice was rather irregular and lacked a clear basis for calculating the reward or who was entitled to it. The managing director explained why RPE was used for top management only:

> "The top management is responsible for the whole work, making policies, following-up and executing these policies. Therefore, the total performance of the company should reflect how the top management thinks and works. Also, Top management has qualifications and experiences different from the other managerial levels. On the other hand, the market in Egypt in open, it is quite possible to know about your competitors' who share the business environment. Hence, I believe it is the responsibility of the top management to handle those competitors and to be evaluated accordingly."

The managing director and the marketing manager saw differences in mentality, perception and motivation of each managerial level; for example shop floor employees are not likely to have the comprehensive view of company's strategy and hence understanding how important it was to compete with other companies.

Target difficulty and the money item of RPE:

The Managing Director, the Marketing Manager and The Chief of Southern Region Delivery agreed that targets under RPE (i.e. the peer group) should be difficult enough to trigger employees' abilities to work harder but should be attainable at the same time otherwise it would de-motivate them. Target attainability was particularly important because of the influence which it would have on the employee's reward.

Different potentials from RPE:

Interviewees revealed a general attitude to support RPE for different reasons, for example to trigger creativity, to challenge management. Only the chief of the Southern region delivery raised some reservation related to "who should we be compared to?" and "how similarity in working conditions, load, facilities can be secured in the comparison".

Critical non-financial issues:

In Dairy, both financial and non-financial measures were used. The Managing Director considered both types equally important and welcomed by employees at various managerial levels in the company. Specifically, creativity, quality and customer services were critical issues for improvement and expansion as the marketing manager indicated:

> Customer care, meeting time schedules, creativity and quality of services are as important as the amount of sales if not more. The whole marketing work is built on keeping a good relationship with the customer through providing better services and care. If this basis is provided, offering the product for a price higher than some competitors can be acceptable by customers as long as the sales representative succeeds in persuading him/ her that the rise in the price is justified, either by higher quality or services. A customer can pay higher price to the supplier whom he trusts. That's why keeping the trust of the customer is very important especially with the tough competition which we work under.

The other essential non-financial aspect in Dairy was the health and safety of the products. The importance of keeping high standards of product safety stemmed from the fact that the company dealt in food products and any mistake might affect the customer's health and destroy the company's reputation. Therefore, the company got rid of any defective production regardless of the loss.

Fines for negligence:

The Marketing Manager referred to "fines for negligence" which were imposed if negligence or mistreating customers was proved. The marketing manager explained the reason behind this position as:

> The sales representative receives the highest salary for a sales representative in the country, on the other hand, I want him to be always in front of the customer. Customer care and providing high services are among my pillars to increase my share in the market. I also expect my sales representatives to report the strength and weaknesses of us and of our competitors for my plans. I pay him a lot and I expect a lot from him, if he lets me down, I reduce his money.

Implications of being a private company and company's strategy:

The three interviewees of Dairy reported that the company encouraged competition among employees via the internal and external comparisons as a recognisable feature in Dairy's organisational culture. In doing so, the company sought to work more effectively and creativity, controlling costs, quality and customer care as methods for achieving its goals. The marketing manager placed a special emphasis on providing new and high-level service to customers and depended on two strategies to push the sales staff: salary and "reprehension" in case of inadequacy. Quality was specifically important and any defect in food products might affect the health of the customer.

(6.1.3) **Case Three: Steel Company**

Background of the company:

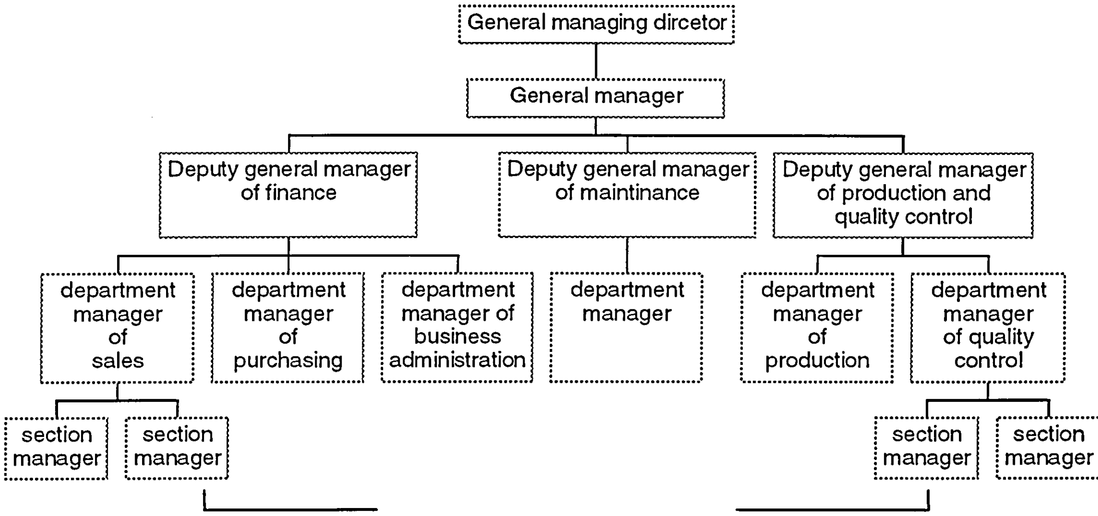
1- In 1982, Steel Co. was incorporated with technical and financial assistance from a Japanese consortium, and the International Finance Corporation (IFC), to meet some of Egypt's needs for steel reinforcing bars (rebars), for the construction industry. The company aims to benefit from the strong technical support of its Japanese partners, and the consultancy arrangement it has with the British Steel Corporation.

2- The Company was set up under Investment Law 43 of 1974 (later replaced by law 230 of 1989) as a joint venture company between Egyptian public sector industrial and financial companies, a Japanese Consortium composed of Nippon Kokan, Kobe Steel and Toyo Menka Kaisha (renamed Tomen), and the IFC. In 1994, the Company increased its capital to partly finance a major expansion. Steel's employees and the IFC subscribed to this capital increase which raised Steel's private sector ownership from 13 % to 28 %. Recent share sales by public sector shareholders have further increased private sector participation to around 36%.

3- The Company was originally designed as an integrated rebar plant with a nominal output of 745,000 metric tons per year (tpy). It uses the Midrex Direct Reduction Iron process (DRI), to produce the major portion of its iron needs, with imported iron ore pellets and domestic natural gas as the reducing agent. This coupled with the electric arc furnace, continuous casting and modern bar and rod mills, proved to be the best alternative for Egypt. Indeed, locally available natural gas in nearby Abu Qir field, and the high cost of imported steel scrap: made the DRI route more cost effective than conventional scrap based electric arc furnace steel making. This resulted in an internationally competitive operation with attractive financial returns (source of data: The internet, Home page of Egypt/industry: http://163.121.10.47/PROJECTS/Steel/) The company is currently involved in two major expansion projects. Alexandria Steel company, has 3,500 employee, it covers nearly 50% of the national demand (80% of their production, the rest is exported to the USA, Germany, Italy,... and they get the raw material from Sweden, Brazil)

The company is aware of the social affairs and effectively contributes into Alexandria's surrounding community. For example, the company's training centre tailors some courses to the technical staff of "Alexandria's Arsenal" in many fields. Also the company sometimes borrows some of their staff on a temporary basis to fix some jobs. In addition to this co-operation, the company's expansion and the launching of new factories is supposed to create many job opportunities for individuals and for local contractors. More importantly, Steel pays great attention to the environment. The company has been awarded the ISO 14002 environment certificate. In Steel there is a commitment to using technology which causes the least level of pollution. The company is also interested in keeping high standards of practice in handling the refuse, for example it does not get rid of it by throwing it into the Mediterranean sea. The following is the organisational structure of the company:

The organisation structure of Alexandria Steel Company



14 Section managers

↓

Followed by 20 assistant section manager

↓

Followed by 300 engineer, accountant and chemists

↓

Followed by 3000 worker

Figure (6-1)

The Performance Management System

Before the beginning of each year, each department was asked to set up its plan for the coming year. This included the amount of production, quality, requirements,...etc. Estimations were revised and co-ordinated by the quality control division and top management. After approving the budget, it was decomposed into departmental and divisional plans. However, the budget was adjustable semi- annually. The annual budget was set taking into account the companies long-term strategy which sought to expand and increase exports of steel products. In order to motivate employees and avoid fluctuations in the company's performance, the previous year's performance was set to be the minimum of the current year's target.

Performance was measured in both financial and non-financial terms. The company placed a special emphasise on monitoring creativity, innovation, quality improvements, savings and particularly industrial safety because of the location near the Alexandria harbour. Division performance was assessed against the budget, the past, other divisions; the whole company was compared to international steel producers. The first reason for this was because of being a joint venture, the Japanese partners matched the company's performance to counterparts in Japan and Germany. Second, the company networked with the international market (through importing the raw material and exporting about 80% of the production). The third reason was the lack of a local equivalent. However, employees were rewarded upon comparisons with targets only.

The division's performance used be reviewed annually but both the employees and the factories' machinery experienced pressure and frustration because of the huge efforts required –in a short time- to cover the gap between the actual performance of the year and the target of the year. As a result, the company moved to quarterly assessment where the gap between the actual quarterly performance and the target quarterly was relatively small and comfortably recoverable. The individual's performance was reviewed semi-annually, measured in technical terms including innovation and creativity, their behaviour towards their line manager, co-workers and colleagues in other divisions. The performance review was carried out by two evaluators who tried to rank employees on a "normal distribution" curve according to who was at the top, average, below average, etc and employees were rewarded correspondingly. Participants recorded their satisfaction with this system. Rewards were paid in a variety of forms, mainly in cash but non-cash items such as: travel opportunity, medical coverage, subsidised food and accommodation (for key staff who were on call 24 hours a day) also existed. A marked practice in Steel was developing staff skills continuously through training internally, external or abroad. The table below displays the questionnaire data of Steel company. The table should be read according to the terms which were identified in page 143 of this thesis (i.e. what the items in the table mean) which were applied to presenting the data of Trade and Dairy companies. The same limitation of the regression in Dairy (page 150) applies here. The importance of the results of the regression should be observed with caution due to the very limited size of sample (as N= 14 only).

Table (6-5) the questionnaire data of Steel company "Accepting RPE, its objectives and elements" (N= 14)

Variable	RPE	Roles of RPE		Objectives from work			Peers from			
		Motivation	monitoring	money	esteem	creativity	same co.	same region	same indu.	top 100
- % of agree	57.1	92.8	57.2	92.8	42.9	35.7	42.9	35.7	50	57
-correlation to RPE				**.65****	.39	-.14	**-.45****	.08	**.54****	.41
-sig. of correlation				**sig****	sig*	non	**sig****	non	**sig****	sig*
♦Regression's parameters:										
B				1.845	.310		-.267		.309	
Beta				.730	.156		-.447		.418	
Constant				-.451			7.455			
R				.804			.59			
R square				.647			.349			
Sig of F				**.005****			.09*			

Variable	Performance measures		Accounting vs. market measures		Rewards				
	Financial	non financial			cash	shares	post retirement benefits	holiday	work conditions
- % of agree	50	64.3	71.4	28.5	78.6	71.4	50	67.1	28.5
-correlation to RPE	.43	**.52****	.25	.02	**.58****	**.57****	.17	.38	.02
- sig. of correlation	sig*	**sig****	non	non	**sig****	**sig****	non	sig*	non
♦Regression's parameters:									
B		.549			.287	.127			
Beta		.524			.495	.216			
Constant	5.598				6.167				
R	.524				.622				
R square	.274				.387				
Sig of F	**.05****				.06*				

Peer group	Peers from the same company	Peers from the same region	Peers from the same industry	Peers from top 100 companies
Peers best described as	Easy or difficult but attainable 28.6 %	Too difficult and unfair 21.4%	Difficult but attainable 57%	difficult but attainable 35.7%

** p= .05 *p= .10

♦ The regression equations are: (a) Objectives from work and RPE is: RPE = 1.845 Money -.451
(b) Peers and RPE: RPE = -.267 peers from the same company + .309 peers from the same industry + 7.455
(c) Performance measures and RPE: RPE = .549 Non Financial measures + 5.598
(d) Form of rewards and RPE = .287 cash + .127 shares + 6.167

Observations from the questionnaire

As the table above indicates 57.1% of Steel's respondents approved RPE as a motivational and monitoring technique. In doing so, 92.8% expected to gain money from it and 42.9% expected to gain esteem. Under RPE, the respondents preferred to be compared to peers from the same industry (50%) and top 100 companies (57%) but not the region as there was no equivalent to Steel company in Alexandria region. Using peers from the same company was preferred by 42.9% but hold a significant negative correlation with RPE. In terms of peers difficulty, 28.65% of the total respondents ranked peers from the same company as either easy attainable or difficult but attainable, 21.4% classified peers from the same region as too difficult and unfair. However, 57% of respondents considered peers from the same industry as a difficult but attainable target also peers from the top 100 (35.7%). Spearman correlation shows significant association between RPE and the difficulty to compete with peers from the same industry and top 100.

Performance under RPE was preferred to be measured in non-financial (64.3%) and financial terms (50%). Regarding the features of the measures, accuracy was preferred by 85.7%, comprehensiveness 42.8%, time-related 35.7% and controllability 21.4%. Financial measures were found positively correlated to the comprehensiveness of the measures ($p= .10$) and time-related ($p= .06$) whereas non-financial measures were correlated to controllability (at $p= .08$) and accuracy of measures ($p= .06$). None of these features of the performance measures was found correlated to RPE at $p= .05$ or .10.

However, within the financial measures group, the accounting measures were reported to be more controllable than the financial market measures (71.4% to 28.5%) although neither was significantly correlated to RPE. Regarding rewards, it was welcomed to be firstly in cash (78.6%), then shares (71.4%), post-retirement benefits (71.4%) and holidays (67.1%) and 57.1% agreed that varying the form of reward would enhance RPE.

The respondents in Steel provided some comments regarding other possible uses of RPE. For example, the Specialist in Customers' Contracts considered that RPE could tie the company to the environment and determine the company's position in front of the competitors. The Quality Controller regarded RPE as a mechanism to motivate employees to improve their skills continuously and provide a chance for ambitious individuals to prove their qualities. An Engineer in the Flat Production Factory recorded that RPE could shed the light on those who work harder and hence help them to get better jobs in the company or in other companies. Unlike Dairy respondents who were suspicious that RPE might ruin the group work spirit, a Chemist in the Inspection division in Steel argued that RPE might enhance co-operation between co-workers to compete effectively with rivals outside the company. However, the Head of the Production Shift, Engineer of Production Planning and Specialists in the Follow-up and Customer Services argued that similarity in type, ownership, technology and markets should be secured before doing any benchmarking. Furthermore, the Engineer in the Direct Reduction Factory suggested other peer groups such as the heavy industries sector and the most successful companies in the private sector as reference groups.

Observations on the interviews:

Attitudes towards RPE

The Operations manager approved RPE for many potential benefits: it could increase loyalty to the supportive work environment which encouraged hard work and enhanced creativity. The Production Control Officer added that RPE could polish merits, provide better job opportunities in other companies although it might feed "individualism". The Galvanisation Manager raised questions about how performance would be measured, by effort or by outcome. Regarding the roles of RPE, the Galvanising Manager while accepted the motivational part, inquired about the monitoring ability of RPE as:

> "Performance" is a joint product of many inputs among which is the employees' effort. How would RPE separate the "human input" from the other inputs and monitor it?"

When RPE design manipulates its purpose

The Operations' Manager in Steel debated that unattainable targets might work against the aims of RPE. His argument was; RPE was proposed to trigger employees' needs for money and esteem. Nevertheless, if a target was too difficult, employees might lose not only money but social esteem as well, because they might be seen as lazy, not hard working individuals and not able to achieve their target. Therefore, unattainable targets might ruin the potential of RPE.

Long Term Considerations:

The Production Officer, the Galvanising Manager and the Operations Manager who were interviewed, recorded that non-financial aspects such as quality, creativity, savings and safety were /should be clearly monitored under the control system and RPE. There were two roots for this importance: First, from the employees' point of view, it meant that all dimensions of their performance would be included hence the measurement would be fair. Second; from the company's view, that emphasised the organisational culture which stressed the importance of quality, development and creativity. Those items were seen as the pillars of long term growth and expansion.

Experience with market measures:

The three interviewees of Steel rejected market measures. The Galvanising Manager in Steel argued that if market measures were generally inefficient for any performance evaluation, they were particularly inefficient and irrelevant for RPE and the evidence was:

> "Two years ago, some people played a game in the securities exchange and risen the share price of Steel rose from £ 170 to £240 in one week and it fell down again the week after. Was that a true change in our performance? Should we be rewarded for it?"

Balance between financial measures and non-financial measures:

In Steel company, the Production Controller called for a balance between the financial and non-financial aspects of work. In his view, appreciation of the non-financial measures should not eliminate or understate the importance of the financial measures because:

> For me both the financial and non-financial measures are important. It is not enough that we report that the factory was producing 800 tons and now produces 900, but also how much it costs. We can produce a massive amount but instead of costing the ton £100, it costs us £200 for spare parts, fuel and oils. Cost is an element which we jointly control with the finance department. At the end of the month the finance department reports that, for example, the direct reduction division consumed (and costs) £11 per ton for spare parts, £25 per ton for fuel, £32 per ton for oils.

Features of organisational culture:

The Operations' Manager recorded that Steel developed and encouraged the values of competition, participation and creativity. The Galvanisation Manager reported that the management at all levels was supportive to the levels below. Therefore, most of the proposals and the QCS (Quality Control Service) were raised and implemented by the shop floor workers. The company's vice president showed a special concern for the technical issues (the company was awarded the ISO 9001 for quality and the ISO 14001 for environment two years ago). The organisational culture of Steel had an open environment, a flow of communication, training and developing skills programmes for all employees.

Implications of being a joint venture with Japanese companies

Being a joint venture, Steel adopted some aspects of the Japanese management style. For example, The Operations Manager mentioned that division's power to take decisions, leadership (at all levels) encouraged new ideas and proposals from all managerial levels. The Galvanisation Manager recorded that the system tied the individuals' to the company through the job-for life which it provided. This gave not only security for jobs and less mobility among employees but made the company like the employee's own family. This security was accompanied –in the Production controller's view- by a satisfying pay package. Also the company's culture supports "togetherness" and co-operation.

Reservations on RPE

The respondents of the three companies recorded some reservations on RPE, its merit, relevance to the various managerial levels and the basis of calculating the reward. For example, The Manager of October City factory of Dairy debated that RPE might destroy the group work spirit while competing to get the reward. On the other hand, the Follow-up Assistant Manager in Trade argued that this system could be difficult to apply on middle and lower management because it would need a huge amount of details about counterparts in other companies. The Galvanisation Manager in Steel considered that, if RPE was to be applied, it should be explained to the employees so that they understand and approve it. Regarding the basis of calculating the reward, the Head of Importing Construction Machines argued that if incentives were calculated as a percentage of salary, so whoever got a big salary would consequently received a big incentive. Therefor, the reward would not be because they worked hard, but because they were basically on a high salary.

Summary

In this chapter, the data of the questionnaire, interviews and other documentary sources for every individual company have been analysed. The data show that RPE was used in Dairy company only but not welcomed, not used and not welcomed in Trade and not used but sought to be used in Steel company. The participants from the three companies acknowledged the motivational role of RPE (but not the monitoring role) and RPE's ability to generate money rather than esteem (both money and esteem in Steel). Peer group, measures and rewards are influential variables on RPE. In Trade, peers from the same region and the same company, financial measures only, cash rewards, post retirement benefits and better work conditions were preferred. There was a strong implication of being a public company appeared in the governmental interference which was not favoured by the participants. In Dairy, peers from the same company, industry and top 100 companies, both financial and non financial measures and cash and shares reward were preferred. Links to stock market were a major factor behind applying RPE. In Steel, using a peer group from the same company would be expected to negatively impact RPE. Peers from the same industry and top 100 companies, both financial and non-financial measures, reward in cash and shares and holidays were preferred. Chapter seven provides different analyses for the data of the three Egyptian companies in various directions. Firstly the whole questionnaire data will be combined to provide a picture about the Egyptian practice of performance measurements and RPE. Then, comparisons between the companies, the sectors (public and private) as well as attitudes (those who agree on RPE, who refuse and who are neutral) will be examined.

Chapter Seven

Presentation and Comparison Between The Companies

and Sectors of The Egyptian Data

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Chapter six provided an account for the case of each of the three companies under investigation. Trade company was a public company, used to lead the national market of heavy machine e.g. for farming, construction and suffered from looses recently. RPE was not used and not welcomed because of the governmental interference and lack of controllability. However, if RPE was to be applied, it would be accepted to gain money and peers from the same region and the same company were preferred financial and accounting measures and rewards in cash, post retirement benefits and better work conditions. Dairy was one of three companies dominating the dairy market in Egypt and expands into Arabic countries. RPE was used, welcomed by and applied only to top management, while other managerial levels had some reservations on it. RPE was seen as a money generator tool and the comparison group was preferred to belong to the same company, industry and top 100 companies, non financial measures were preferable more than financial measures especially innovation and creativity as the way to grow and expand. Market implications led to thinking of RPE as a tie of top management's reward to competition. Because respondents were on a good salary in Dairy, they welcomed RPE reward in cash or shares. Steel is number "1" steel and iron producer in the Middle East. RPE was not applied there but sought to be applied provide money and esteem, peers preferred to belong to the top 100 companies. Employees preferred both financial and non financial measures of performance to keep close to the international standards and rewards were welcomed in form of shares.

This chapter presents comparisons between the data of the three Egyptian companies on different levels. Firstly, all the questionnaire data will be shown, then, comparisons between the three companies, the two sectors (private and public) and the attitudes towards RPE will be made. Thus, the chapter is divided into four parts. Part one provides an overview of all questionnaire data on Egypt collectively in order to demonstrate an overall view of RPE, attitudes, potential and design. Part two contains a comparison -in two sections- between the questionnaire data and the interview data of the three companies. Part three runs a comparison between the data of the two sectors (public sector and private sector). The last part reports an attempt to discriminate the quantitative data for the three Egyptian companies together according to the attitude towards RPE.

(7.1) Part One

Collective Data of Egypt's questionnaire

Table (7-1) provides a summary of the questionnaire data for all the Egyptian companies (71 data units). A detailed presentation of the questionnaire data is provided in Appendix (C-2). The table shows the frequencies, Spearman correlation coefficient and the significance of these correlation regarding RPE and its contingents.

Table (7-1) All Egypt questionnaire data "Accepting RPE, its objectives and elements" (N = 71)

Variable	RPE	Roles of RPE Motivation	monitoring	Objectives from work money	esteem	creativity	Peers from same co.	same region	same indu.	top 100
* % of agree *correlation to RPE *correlation sig.	45.1	67.6	47.9	74.7 **.51**** **sig****	19.7 .12 non	31 .05 non	62 **.23**** **sig****	39.4 **.25**** **sig****	46.5 **.22**** **sig****	36.6 .11 non

Variable	Performance measures Financial	non financial	Accounting vs. market measures		Rewards cash	shares	post retirement benefits	holiday	work conditions
* % of agree *correlation to RPE *correlation sig.	67.6 **.34**** **sig****	77.5 **.22**** **sig****	62 **.36**** **sig****	28.1 .14 non	81.7 **.43**** **sig****	49.3 **.25**** **sig****	38 .21* sig*	46.5 .10 non	40.8 **.29**** **sig****

Peer group	Peers from the same company	Peers from the same region	Peers from the same industry	Peers from top 100 companies
Peers best described as	Easy attainable 47.9 %	Easy or difficult but attainable 25.4%	Difficult but attainable 42.3%	exteremly difficult and barely attainable or too difficult and unfair 21.1%

- % of agree = % of respondents who agree and strongly agree to the total number of respondents
- correlation between a variable and RPE is Spearman correlation coefficient
- all correlations are positive and significant at = p= .05

For all the Egyptian data, 45.1% of the total respondents agreed on RPE as an evaluation technique because of its ability to motivate employees (67.6%) through money (74.7%). Under RPE scheme, 62% of the respondents preferred to be compared to a peer group from the same company then peers from the same industry (46.5%) and peers from the same region (39.4%) and 36.6% preferred peers from the top 100 companies nation-wide. The advanced preference of intrafirm comparison and regional comparison could be an impact of the respondents of Trade company which had this as their first preference. Preferring peers from the same industry appeared as a combined result of Dairy and Steel preferring it. In terms of difficulty to compete with the different peers, 47.9% of the respondents from all the Egyptian companies classified "competing with peers from the same company" as an "easily attainable target". However, competing with peers from the same region was described as equally (25.4%) easily attainable or difficult but attainable. Peers from the same industry was best described as a difficult but attainable target by 42.3% while peers from the top 100 companies were equally considered (21.1%) extremely difficult and barely attainable or too difficult and unfair. Spearman correlation showed a significant association between peers from the same company, region and industry and RPE. Also it revealed a significant coefficient between RPE and the difficulty to compete with peers from the same company (at p=.05) and difficulty to compete with peers from the same region (p=.07). This suggests that, respondents saw that the more difficult the peers from the same company and region were, the more RPE could be motivating.

In terms of measures, the overall view shows a tendency to prefer non-financial measures first (77.5%) as supported by respondents in Dairy and Steel followed by favouring financial measures (67.6%) as firstly chosen by Trade participants. Both financial measures and non-financial measures are significantly correlated to RPE. Within the financial group of measures, the accounting based measures was favoured (62%) over the market based ones (which were embraced by 28.1%). Only accounting measures were significantly correlated to RPE. For the whole sample, cash is the first preference for rewards (81.7%), followed by shares (49.3%) -generated from the support of Dairy and Steel respondents- then holidays (46.5%), better working conditions (40.8%) and post-retirement benefits (38%) sought by Trade respondents. Cash, shares and better working conditions were significantly correlated to RPE at 95%. Post-retirement benefits were correlated to RPE at 90%.

The regression model indicated that the objectives from work as a group had a significant influence on RPE due to money (sig. =.002) and esteem (sig. =.102). With regard to the influence of performance measures on RPE, the group of different peers (not including the top 100) was influential at p=.05 led by peers from the same region (sig. =.06). Including the top 100 made the group significant at p= .10. However, the regression of the different degrees of difficulty related to each peer group -together- and RPE was not significant. Nonetheless, the difficulty of peers from the same company -individually- had a significant impact on RPE at 95% confidence interval. The financial and non-financial performance measures together were significantly influential -as indicated by regression- also were the various types of reward group.

(7.2) Part Two

Comparison between the three firms

(7.2.1) Section One: Questionnaire data

While the previous section set out the case for each company individually, the intention here is to trace some similarities and dissimilarities between the three firms, as summarised in table (6-4):

Table (7-2) Comparison between the three companies regarding RPE

Variable	Trade co. (Public)	Dairy co. (Private)	Steel co. (Joint Venture)
Fact: use RPE	No	Yes	No
Attitudes: **♣Accepting RPE**	44.5	38.1	57.1
Objectives which RPE satisfies	money	money	money- esteem*
RPE design **Preferable peers**	same region- same company	same company -industry - top 100*	same company (negative correlation) - top 100*- industry
Measures	Financial Accounting*	Non Financial - financial Accounting - market	Non Financial - financial* not any
Rewards	Cash- post retirement benefits -better work conditions	Cash- shares	Cash-shares- holiday*

♣ Calculated as the % of those who agreed and strongly agreed to total number of respondents * p= .10

This table can be read as: (a) There are some attitudes/ preferences shared by the respondents of the three companies (b) Some attitudes shared in a cluster (c) Some unique aspects in each company. This section highlights these directions as the following figure outlines.

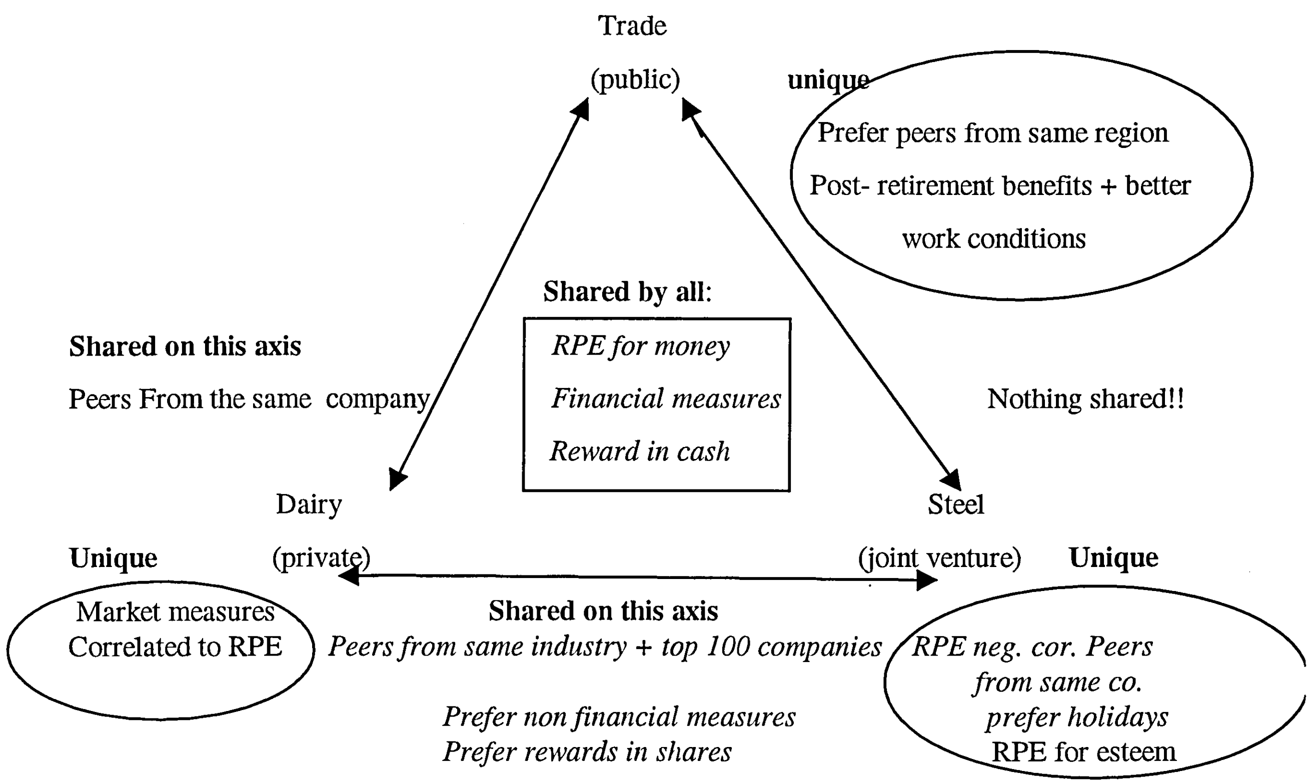

Figure (7-1) What is shared and what was unique regarding RPE in the three companies

First: What is shared between the three companies

While the three companies differed as to whether or not they currently use or prefer to use RPE, the data showed that the participants of the three companies were similar in seeking money from RPE, appreciating the financial measures of performance and rewards in cash.

Second: What is shared in a cluster

On the cluster level, respondents of Trade and Dairy preferred peers from the same company. For Trade it was an aspiration and for Dairy it was a reflection of reality where intrafirm comparisons were a usual practice and welcomed as a version of RPE for non-senior managerial level. The respondents of Dairy and Steel aspired to compete with peers from the same industry (as currently used in Dairy) and the top 100 companies nation-wide. While neither of the companies was among the top 100, both had an advanced position in their industries. Dairy was one of the three companies that dominated the dairy market in Egypt while Steel was the biggest steel producer in Egypt and the Middle East. Both companies appreciated non-financial measures. In Dairy, quality and creativity were ways to compete effectively and to support the expansion strategy. In Steel, quality and safety were crucial to survive in the international arena. The respondents from the two companies preferred shares as a reflection of the high salary which they received and an indication of the risk-taking attitude which their company encouraged.

Third: What is unique in each company

Some attitudes were recognised by the individual companies. In Trade only peers from the same region appeared as a preferred peer group, rewards in the form of post-retirement benefits and better working conditions. These unique features reflected the situation in Trade. Being a retailer, the company was interested in the performance of rivals who were operating in the same area and were having the same access to customers. Dairy and Steel which were manufacturing companies seemed not to have the same concern. Also because Trade was a public company, it was directly affected by the legislation regarding labour. At the time of doing the empirical work, new legislation allowed employees in the governmental units and public sector to have early retirement at the age of 45 for an attractive package of benefits. In addition to this, 36% of the respondents of Trade belonged to the senior level who –according to the promotion system in the public sector which materially depended on time spent in the grade /post-would fall within the age scale which was eligible for early retirement packages. These reasons might explain the concern of Trade's participants to receive RPE rewards in a post-retirement form.

In Trade, RPE was not used and rejected -as detailed earlier- due to a lack of controllability over targets and performance which were governed by the state's policies. However, if RPE was to be used, the similarity between companies should be secured and then, peers and rewards (but not the performance measures) would be influential, and the financial measures were the only type currently used and preferred.

In Dairy, the unique features were using RPE (although data showed a limited approval for it) and market measures were positively and significantly correlated to RPE. The Marketing Manager explained that RPE helped in linking the company to the business environment and was consistent with Dairy's growth and expansion strategy in monitoring its position among competitors. Moreover, The Managing Director debated that top management was responsible for handling the impact of competition and RPE provided a means for reviewing whether top management took that responsibility. However, applying RPE on an intrafirm basis was welcomed for non-senior levels. In Dairy, market measures were found strongly correlated to RPE. This indicate that it might be an impact of the securities market on Dairy. The Managing Director and the Marketing Manager explained two related points. First, top management was responsible for managing competition and the expansion policies and in the meantime it was given the authority and flexibility to take whatever decisions were required. Dairy company mainly operates locally, therefore -as the Marketing Manager indicated- "the dairy market" was both known and representative for members. A consistent thread could be traced in that direction because market measures were seen as influential, meanwhile, peers from the industry and the top 100 companies were preferred as comparison groups and shares were preferred as a form of pay.

In Steel, RPE was not currently used, but welcomed by the staff. It should be noted that RPE was found negatively and significantly correlated to peers from the same company (unlike the case in Trade and Dairy). The Galvanisation's Manager recorded that they experienced some benchmarking processes where some operations and costs were matched with similar steel factories in Germany and Japan. That helped in diagnosing some extra-spending and waste. Such experience might not be gained if the comparison was confined to colleagues and co-workers. This reveals that respondents in Steel focused on the "learning" side of RPE rather than the "motivating" side of it. Holidays appeared in the list as a preferable form of reward and this was a reflection of real practice.

(7.2.2) Section Two: Interview data

In order to keep the chapter to a reasonable length and maintain the presentation of the data in focus, this section will be allocated directly to the data about RPE. A full exposition and analysis of the companies' practices of control systems is provided in Appendix (C-3). This section consists of three main parts: first a report on the facts and attitudes towards RPE. The second part will shed light on the contingents of applying RPE. The last part identifies some implications of organisational culture and national features on controls, employees' response and to RPE.

Section 2-1: Facts and attitudes about RPE

What is the position of RPE among the other evaluation techniques?

When the importance of RPE -relative to the other evaluation techniques was investigated in this research, the Marketing Manager in Dairy supported the internal comparisons more than RPE on the basis that:

> It is more effectiveness. The individuals feel it and its effects more. If we say your colleague in the maintenance department has been awarded a "recognition certificate" because of some good performance, all staff will be impressed because they know their colleague and they know the working environment so they can recognise why this has been considered an outstanding achievement

The Head of the Galvanising division in Steel adopted the same point of view with special emphasis on the importance of the budget as the first evaluation criterion.

The questionnaire respondents supported the previous view where -in total- the performance evaluation criteria were ranked as follows:

Comparing to the budget- comparing to the past- comparing to peers

Different attitudes towards RPE:

Different attitudes could be discovered among the participants in each company. Table (7-3) summarises the attitudes and the explanation given by each interviewee. The aim of this summary is to detect the general pattern in each company.

Table (7-3) Participants' attitudes towards RPE

company	interviewee	the attitude	reasons behind the attitude
Trade (public)	-Planning & follow up manager	-reject	-the pressure and difficulty with low pay in Trade incomparable, no local equivalent peer to compare with.
	-Planning & follow up manager assistant	-reject	there is a big divergence in pay and work environment + I am not responsible for my company's losses.
	- Importing officer	-reject	losses - internal comparisons more effective, due to sharing the environment, will reveal differences in effort.
	-Maintenance engineer	-accept	- it will feed competition + improvement by learning from successful peers
Dairy (private)	- Managing director	-accept	- our experience show that performance comparisons triggers creativity.
	- Marketing director	-accept	-for top management + in establishing stage, we used to check competitors' performance to challenge our management, was associated to more money and recognition
	- Delivery chief	-reject	- who should we be compared with? how similarity in work condition, load, facilities can be guaranteed before the comparison.
Steel (joint venture)	- Operations manager	-accept	- it will increase loyalty to the supportive environment + creativity.
	-Production control officer	-accept	- it would motivate and polish merits + might provide better job opportunities in other companies + but it feeds "individualism"
	- Galvanising division	-reject	- similarity should be guaranteed before a meaningful comparison takes place.

Firstly, the attitude of the interviewees were consistent with that of the questionnaire participants in Trade and Steel but not in Dairy where 2 of the 3 interviewees belonged to the top management that introduced the scheme and supported it. However, the table above shows that there is a general attitude against RPE in Trade company which did not -in fact- use RPE. In Dairy and Steel, the attitude towards RPE was welcoming rather than rejecting. In Trade, the low salary, the discouraging working system, difficulties and the governmental interference in planning and lack of a constructive environment which encouraged creativity, all these reasons undoubtedly formed the negative attitude which the employees hold towards RPE (as detailed in Trade section of this chapter: page 137).

In Dairy company where RPE was already applied to senior management, the interviews sustained the general attitudes which welcomed RPE. Both the Managing Director and the

Marketing Manager stressed the potential outcomes of RPE. For example, the Managing Director argued that performance comparisons would enhance creativity:

> Once the production manager suggested changes in the production scheduling and asked us to approve radical changes in the materials' supply, in that way, we could defeat "Al Mutahedein" company which was competing in producing dairy products at that time. As a result of this plan, the production improved. Here, the comparison with other companies fed the ambition of the staff.

The work of competitors has been a tool for drawing the company's strategy and a tool for operationalising this strategy, as the marketing manager explained:

> For a new company, to get a place in the market, you should outperform the competitors, if only in one aspect. We built our strategy on a "low cost, vast sales" basis and we believed that higher quality and lower price is our way to apply that strategy. We also used to "pilot" our new products in the market, we used to ask customers: how they find the new cheese -for example- in terms of taste, shape, size and price compared to the cheese of our competitors.

The Chief of Delivery to the Southern Region in Dairy raised some reservation on RPE. More specifically he argued against using RPE for non- top management level (e.g for drivers and deliver staff) because in his view:

> It is difficult to do external comparisons of drivers' performance, With whom will our drivers be compared? Drivers from the private sector or public sector? I know that in the private sector they buy the best vehicles and they hire the best drivers. The public sector has many problems.

In Steel, the attitudes followed the same direction as in Dairy, where there was general approval for RPE but with one reservation about guaranteeing similarity before doing the comparison. The Manager of the Galvanising division (who was against RPE) argued that, there were many problems raised from adopting Japanese management styles, for example:

> a large portion of the engineers' time is spent in the factory, in activities which are not initiated for them but for the Foremen. But because the foremen do not fulfil the specifications of "foreman" in the system, they always need the engineers' support. This time should have been used in drawing up policies for the division and for intellectual and creative work.

However, the Operations Manager in Steel argued that esteem could be gained by working for a company which is well regarded by the society as he indicated

> I would think RPE might provide esteem as well as money although our working in a successful and well appreciated company gives us this social esteem.

The drives behind RPE and the proposed roles of RPE:

As the table above indicates, the participants who approved RPE in the three companies, accepted that it would motivate employees to work better by triggering the employees' needs for money and esteem. The Managing Director of Dairy -although he approved the motivational role of RPE- raised some doubts regarding the monitoring ability of RPE and argued:

> I find it rather difficult to agree that peer comparison would reveal employees' effort. How would effort be measured initially? Is it the amount of work hours? Is it the number of produced units? Any output is a joint product of many factors how can I separate the impact of human effort from that of the management, the system, the policies....etc.

This suggests that, either the monitoring function of RPE has not been thought of before, even in the companies which implement it and/or that it is not a clear task for the technique. Regarding the needs which RPE was argued to trigger (i.e. money and esteem), the interviews revealed that money, esteem, creativity were fundamental needs to all employees in all managerial levels in all companies and the differences were in the importance which the person gave to each of them. The Assistance Manager of Follow- up in Trade argued: "all managerial levels need money, the person who has a million wants another" but the head of Galvanising division in Steels added: "Yes money is number one, but there should be numbers 2, 3 and 4". Another piece of evidence in seeking esteem was experienced in the three companies through non-financial rewards (such as a "thank you letter", allowing promotion for talent, the company's annual dinner ...etc).

The second sub- argument here is about RPE's ability to satisfy money, esteem and other needs. The Managing Director of Dairy supported the argument that RPE triggers the need for money and esteem by an example from his own experience (as presented earlier) where competing with peers –during the establishment stage - was associated with gaining esteem, recognition, and money. The Maintenance Engineer in Trade related RPE to the national competitions in Egypt between companies such as the Production Cup which is awarded to companies for outstanding achievements and the Ideal Worker award which was awarded in each profession to the best performer.

The point which the researcher raises here is that, the Production Cup, is a contest between companies not individuals. The Production Control Officer in Steel raised an argument about the difference between running comparisons on companies or on individuals' performance and expected each of them to have a different implication on individuals:

> Comparisons between the employees in different companies, would raise self-esteem. If it is run on companies, everyone would feel that he/she is a part of a successful entity but if the comparison is between "individuals" it would show a "successful individual" rather than " a successful company".

Why is RPE unfair

The manager of the Galvanising division in Steel company debated that RPE would be unfair in any case even if the comparison was between national companies. The source of unfairness he saw was; how the bad or good performance could be recognised as he enquired:

> I do not think it would make RPE more attractive to me if the comparison was held between Egyptian companies. It would still be unfair. My personal view is: if I am compared to a manager in another company, they make losses and we make profits although the manager there works better than me, how are we going to sort the situation out? where is the fairness.

Where RPE is acceptable:

On the other hand, the participants mentioned a number of variables that should be considered in order to make RPE acceptable. The Galvanising Manager in Steel wanted all circumstances to be taken into account, this included economic, social and environmental circumstances, everything that might affect a manager when he took decisions, the freedom which he had to make decisions, ...etc. The Follow- up Assistant Manager in Trade - generally - put one condition for accepting RPE, it was to guarantee similarity between companies whereas the Importing Officer considered that it would be an obstacle to RPE because of the huge amount of data needed for the comparison.

New vision/ roles/ understanding for RPE:

The participants in the enquiry provided further roles and versions of RPE. The first new version of RPE was the internal comparisons. The Marketing Manager of Dairy and the Assistant Manager of the Follow- up in Trade agreed with that view and the latter discussed:

> It seems more reasonable if the comparison is held in the same company between people who work under the same conditions. In some companies, the employees do not get their salaries for three months, this is not the case with me. I receive my salary on 24 or 26 of each month so are they the same circumstances?

Here, the comparison was thought to be meaningful because of the environment within which the performance figures emanated were similar.

The Marketing Manager and the Managing Director of Dairy company which actually applied RPE, provided another use for RPE from their real experience. The company used RPE in planning because:

> The company specifically seeks any areas where it can outperform the reference companies to enhance the effort in that direction and also to benefit from the experiences of other companies. Rewards are entitled upon meeting targets for top management.

The management's basic rationale for this practice was thought to be; it was a tool to position Dairy among other dairy producers in Egypt and this highlighted the need for further investigation. For example, at what points could Dairy outperform other dairy producers such as; "Juhayna", "Milky Land" [seethe Appendix (C-4) for further details about these companies] and the foreign companies which market in Egypt? Then Dairy could start to build strategies to face competitors.

Section 2-2: Contingents of RPE

This section reports the interviewees' feedback concerning the research argument: what contingents affect RPE? This includes studying the components of the system (the peers, the measurements and the reward form) and any other variables suggested by the participants. Therefore, this section will be divided into four parts: Peers, measures, form of reward and other contingents. Table (7-4) below summarises the attitudes towards the proposed contingents of RPE and the reasons behind these attitudes.

Table (7-4)
Attitudes towards the contingents of PRE and preferable peers, measures and form of rewards

Targets				
company	subject	attitude about target's difficulty	the preferable peer group	why preferable
Trade	-Maintenance engineer	-Target should be difficult but attainable	-private maintenance companies	- we'll improve from learning from good experiences
Dairy	-Marketing manager	-Target should be difficult but attainable	*Not mentioned*	
Steel	- Production control officer	-Target should be difficult but attainable	-chemical and fertiliser	-similar industry
Measures				
Company	Subject	attitude towards F. and/ or non Financial	Examples of Preferable measures	Why preferable
Steel	- Production control officer	non F	quantity - quality	*Not mentioned*
Dairy	-Marketing manager	F. and non F	*Not mentioned*	- direct, has financial echo
Trade	- Maintenance engineer	F. and non F	*Not mentioned*	-both are important-reflect my work
Form of reward				
Company	Subject	attitude towards form of reward	Examples of Preferable measures	Why preferable
Trade	-importing officer	money only	-cash	-the company's share do badly currently.
Dairy	-maintenance engineer	-non monetary	-accommodation	-the company can negotiate for good contracts in the new cities.
	-managing director	-money only	-cash	- there is no reason why the company takes decision on my behalf.
Steel	-Galvanising decision	-money only	-cash	-non cash scheme seem unnecessarily costly.

I: Peers

The feedback about the peers shown in the table above has two main points: target's difficulty and the preferable peer group. A general attitude to be noted is that interviewees agreed on the importance of setting targets as challenging but attainable levels especially under RPE for various reasons. Firstly: because of the relationship between target difficulty and business strategy, as the Operations Manager in Steel explained:

> The point of target's difficulty is related to setting plans and it depends on the company's strategy and whether it is going to continue with the same capacity or will increase it, whether it aims to maintain its market share or expand it. In each case targets are different.

Also, attainability of target was emphasised by the Operations Manager of Steel in order not to de-motivate employees and in order not to miss their rewards, as the Managing Director of Dairy argued (page 151 of the thesis).

Regarding the preferable peers, the Maintenance Engineer in Trade preferred to be compared to a maintenance company in the private sector so as to learn from a successful experience. The Production Controller in Steel (who holds a degree in chemistry) preferred chemicals and fertiliser companies or wider engineering companies.

II: Measures

In terms of measures, the general attitude was in favour of using both financial and non financial measures. In Trade, although the financial measures only were currently used (and this practice was welcomed by some employees such as the Follow- up Manager and his assistance), the Importing Officer required non-financial measures to be used.

The employees' attitudes in Dairy and Steel towards performance measures were not divergent as the participants agreed on the importance of both financial and non financial indicators as part of the organisation' culture and actual experience with these measures. As the operations manager in Steel stated:

> Surely the efficiency of this system will be affected by measuring the performance in financial and non-financial terms. The non-financial terms are inevitable for us and neglecting them is a big deficiency.

Market measures

The participants disapproved using market measures under RPE. This was because of lack of controllability and representativeness that would negatively impact on the employees' income. For example, the Importing Officer in Trade explained his attitude and the situation in his company:

> I do not welcome the proposal that my performance be measured by the share price or any securities index. My company has achieved losses in the last three years (about £m 21 in the last year alone) and is over-drawn from banks by about £ m 40 while I

work hard. I am not responsible for the reasons or policies which have led to these losses and to the collapse of the share price. So why should my performance be evaluated by referring to it? It (the share price) does not represent my performance, my performance is represented by technical and financial measures.

The Production Controller in Steel directly predicted that the use of market measures would worsen the response to RPE as:

> I am not convinced by the market measures and I think RPE will be worse using these measures, neither I nor my peers would be responsible for the movement in the shares of our companies.

The managing director of Dairy company discussed the proposition that RPE would filter the impacts of uncontrollable events from the performance measures. He argued that from a theoretic point of view this might be correct, but in reality there was already a lot of pressure on his managers by challenging them to compete with companies different from Dairy in size, capital, technology, as he indicated:

> For example, a company like "Halwani" -which is a branch of a Saudi organisation with huge investments- can mount a big/ strong advertising campaign on the TV, I might not be able to do the same or for the same period of time and these issues affect the share price. Regardless of these differences, I push my managers to compete with these companies. Here the situation is tough enough and the use of share price will not help, it will not change the fact that there are differences between our company and those competitors.

III: Rewards

Regarding the form of reward under RPE schemes, different participants did not approve the argument that diversifying the form of reward would enhance the system, as the production controller argued :

> I do not see any point in varying the form of reward. It would be like the company taking decisions on my behalf.

The managing director in Dairy agreed with this notion:

> I do not think varying the form of paying the rewards would be of much use. From our experience, individuals prefer to take their money in cash and spend it as they wish. There is no reason why we should pay them in the form of a holiday, investment of shares, houses, ...or whatever.

This seems to be a general tendency among the interviewees -who belong to different managerial levels- to prefer receiving rewards in cash in the first instance. As The importing officer in Trade stated:

> Generally and not related to RPE, cash is better. There is no point in the company buying shares on my behalf or paying for a holiday and deciding this as part of my remuneration package.

The head of Galvanising division in Steel considered it would be unnecessarily costly to issue such plans as it would need a special division to run them.

The Importing Officer in Trade company raised a specific view about this:

> In the last 3 years, our shares have been doing badly in the securities exchange and the performance of the company should improve in order to improve our shares performance. In principle, if I want to invest in shares, there are some successful portfolios issued by the commercial banks for example Al Ahli = National bank of Egypt and Misr Banquet = Egypt's bank and other private and joint banks. In my view, these portfolios are more profitable. They are run by qualified and specialised staff. Also the two banks diversify the component of the portfolio by including national and international securities which would spread the risk and increase the probability of achieving profit.

It is worth mentioning here that Both Al Ahli and Misr banks are the most popular and the biggest commercial banks in Egypt. They are also public and have been operating there for over a century and have links with the international banks. For example there are links between the Al Ahli bank and Barclays.

In conclusion, it seems that the feedback from the interviewees was not in favour of the argument that varying the form of reward would enhance the employees' response to RPE.

Other Contingents:

The feedback from the interviewees suggests variables other than the above which might affect RPE such as; the organisational culture, the characteristic of the public and private sector environment and the national culture. The following section will be allocated to report on these variables and how they have been highlighted by the subjects as well as how they might affect the control process generally and RPE specifically.

(7.3) Part three

Comparison between the Public Sector's Case and the Private Sector's Cases

The following section divides the data into: the private sector's data and public sector's data and reviews what is shared and what is unique to each sector. The reasons for this analysis are also given.

(7.3.1) Section One: Questionnaire data

This section is based on dividing the data into: data of companies belonging to the public sector (which is the Trade company) and data of companies belonging to the private sector (which are Dairy and Steel companies). Therefore, the data of Dairy and Steel companies will be aggregated together to form the private sector's data. As in the previous section, the presentation will include the data from various sources (questionnaire, interviews, documentary material).

Why this comparison

The aim of this section is to detect the similarity and dissimilarity in the pattern of the data collected from the public and the private sectors. The reasons for this are (1) It has been observed from checking the questionnaire data and the interview data that there are differences in the control practices, rationale, long-term vision, perceptions and aspirations between the private sector cases and the public sector case. These differences are thought to stem from the implications of being a "state owned" or "privately owned" company, the organisational culture and the employees' attitudes, the experience and expectations in each sector. (2) It has also been recognised that the public sector's data (Trade company) are remarkably different from the private sector's (Dairy and Steel). However, there is a degree of similarity between the companies in the private sector (Dairy and Steel). (3) The two sectors are almost equally represented in the sample, as there are 36 usable questionnaire and 4 interviews for the public sector and 35 usable questionnaire and 6 interviews for the private sector, this suggests that the two sets of data can be compared.

(7.3.1) The questionnaire data of public vs. private sector

Table (6-6) below summarises the answers of the respondents in Trade which is a public company and both Dairy and Steel together as private companies. It should be noted that the critical value of correlation for each of the public sector's sample and the private sector's which has almost an equal samples (36 and 35 observations respectively) is .279. That is, a correlation coefficient below .279 means it is unlikely that an association would exist between the two variables in the whole population at a confidence level of 95%. Table (7-5) below presents the questionnaire data of each sector in a comparative form.

Table (7-5)

Comparison between the questionnaire data of the public sector and private sector

Statistics / Variable	• % of agree Public	Private	♣correlation to RPE Public	Private	significance of correlation Public	Private
RPE	44.5	45.7				
Roles of RPE						
Motivation	61.1	74.3				
monitoring	50	45.7				
Objectives from work						
money	80.6	80	**.44****	**.58****	**sig.****	**sig****
esteem	30.6	8.6	.24	.08	non sig.	non sig.
creativity	27.8	34.3	.30	.02	non sig.	non sig.
Peers from						
The same company	61.1	**62.8**	**.41****	-.014	**sig.****	non sig.
The same region	65.6	22.9	**.32****	.19	**sig.****	non sig.
The same industry	41.7	**51.4**	.023	**.48****	non sig.	**sig.****
Top 100	38.9	37.1	-.13	**.47****	non sig.	**sig.****
Performance measures						
Financial	77.8	57.1	**.32****	**.34****	**sig.****	**sig.****
non financial	77.8	77.2	.006	**.49****	non sig.	**sig.****
Accounting	69.4	54.3	.23	**.51****	sig*	sig**
market measures	22.3	34.3	.03	.25	non sig.	sig*
Rewards						
cash	86.2	77.2	**.29****	**.62****	**sig.****	**sig****
shares	38.9	60	.09	**.52****	non sig.	**sig****
post retirement benefits	25	51.5	**.39****	.14	**sig.****	non sig.
holiday	30.6	62.9	.11	.15	non sig.	non sig.
work conditions	52.8	28.5	**.39****	.17	**sig.****	non sig.

• % of agree = % of respondents who agree and strongly agree to total respondents

♣ correlation between a variable and RPE is Spearman correlation coefficient

-sig** = p= .05

-sig* = p=. 10

-all correlation relationships should be assumed positive unless otherwise specified

Potentials of RPE

RPE was approved by the private sector's respondents more than the public sector's (45.7% to 44.5%) to motivate employees (74.3% to 61.1%) and monitor employee's effort (45.7% to 50%). However, the respondents in the two sectors equally agreed that money was the first objective from work which RPE could satisfy (80% in the private sector and 80.6% in the public sector). Although money as a goal from work was supported in the two sectors, it had a bigger correlation to RPE in the private sector.

Peers:

The preferable peers in the private sector were, those from the same company (62.8%), same industry (51.4%) and the top 100 companies nation-wide (37.1%) respectively. In the public sector, the participants preferred peers from the same company (61.1%), region (65.6%) and industry (41.7%). The preferred peer groups significantly correlated to RPE in each sector.

Caution should be exercised in understanding this result as the researcher believes that it resulted from the type of activity of the public company -which had been investigated- rather than being a genuine feature of the public sector's companies. As a retailer, Trade public company was interested in the location, where to operate, how much profit it could generate from a specific site and how the peers in the region performed.

It should be noted that in both sectors, the preference of peers moved from "competing internally" to "competing externally". However, the private sector data had a negative correlation to RPE. This could be because of the impact of Steel data which -individually- had that correlation.

Type of activity and performance measures:

In the private sector, 77.2% of the respondents approved non-financial measures to 57.1% for financial measures but both were significantly correlated with RPE. In the public sector both types of measures were equally accepted (77.8%) but only the financial measures had a significant correlation with RPE. The linear regression predicted that, in the two sectors, performance measures would be influential by RPE. Respondents of Trade argued that the type of activity coloured the choice of the performance measures. In their view, Trade was a retailer and its respondents believed that the financial measures (e.g. profit, sales revenue,...) indicated the work involved because they do not do any transformation on the products/ services which they sell. Dairy and Steel were manufacturing companies therefore the non-financial aspects (such as quality, customer service, meeting time schedules,...) were more preferable and commonly used. Employees in the private sector pursued measures which were accurate (71.5% of the respondents) and comprehensive (54.3%). RPE was significantly correlated to the measures' accuracy and comprehensiveness. However, the financial measures were found correlated to accuracy only at p=.06 while the non-financial measures were positively and significantly correlated to accuracy and comprehensiveness but negatively to time related.

Market Measures:

Both sectors preferred accounting measures comparing to market measures; in the private sector, accounting measures were preferred by 54.3% to 34.3% to market measures and the gap increased in the public sector because 69.4% approved accounting measures to 22.3% for market measures. However, respondents in the two sectors had limited approval (25.7% in the private sector to 14.9% in the public sector) for the notion that market measures reflected their work satisfactorily. However, while the accounting measures were correlated to RPE in private sector at p= .05 and in the public sector at p= .09, market measures was correlated to RPE in the private sector only and that was at p= .07. This association could be due to the impact of Dairy data applied to the whole sample of the private sector. Moreover, only 34.3% of total respondents in the private sector compared to 30.5% of total respondents in the public sector, agreed that using financial market measures would enhance RPE.

The group of non financial measures which has been investigated, received different approval as follows in table (7-6) below:

Table (7-6) Sample of non financial measures:

variable	public*	Private*
Customer service	88.9	100
Good use of the resources	61.1	57.2
Innovation	94.4	45.7
Developing new markets	75	60
Quality	66.6	91.4

* % of agree = % of number of respondents who agree and strongly agree to total respondents

In the private sector, quality has an advanced position because it is an emphasised item in the culture of the two companies and a means for outperforming competitors. Achieving budget gained a more advanced position in the public sector where "avoiding risk" and sticking to governmental decisions and procedures was the dominant feature, unlike the private sector which encourages creativity and risk-taking. Therefore, serving customers, providing quality higher than competitors, seeking new markets and targeting efficiency by making good use of the resources, are more advanced in the private companies. However, the respondents in Trade pursue innovation (which is not used currently) probably as a means for overcoming current problems. Customer service is similarly important for the two groups.

The frequencies in table (7-6) above show that the preferred measures in the public sector -respectively- were: ***innovation - customer service- developing new markets - achieving the budget - quality - good use of resources- reducing costs***

while in the private sector they were: ***customer services -quality -developing new markets -making a good use- reducing costs -achieving budget.***
The order of preference might reflect the organisational culture and employees' attitudes and inspirations in each sector.

Form of rewards:
The data reveal that, in the public sector the order preferred for receiving RPE's reward is: in cash (86.2% accept), better working conditions (52.8%) and post-retirement benefits (25%). In the private sector, cash had the biggest appeal (77.2%), then holidays (62.9%), shares (60%) and post-retirement benefits (51.1%). When reading these data in the light of the respondents' comments and the companies' reports, two observations can be made. First, because of low pay in the public sector compared to the private, immediate cash was preferred more than other forms to finance personal needs. High remuneration in the private sector, allowed employees to postpone receiving the reward immediately, aiming to gain more benefits from it in the future. That was probably why shares were preferred in the private sector. The second point is; respondents in both the private and public sectors reported that work conditions were generally poor in the public sector and satisfactorily provided in the private sector. Therefore rewards in the form of better working conditions were sought by the public sector respondents but not the private sector. The respondents in the public sector approved that varying the form of reward under RPE would improve the system more than the respondents from the private sector (69.4% to 48.6%). In summary, the differences in the pattern of data between the public and private sector can be shown in the following figure:

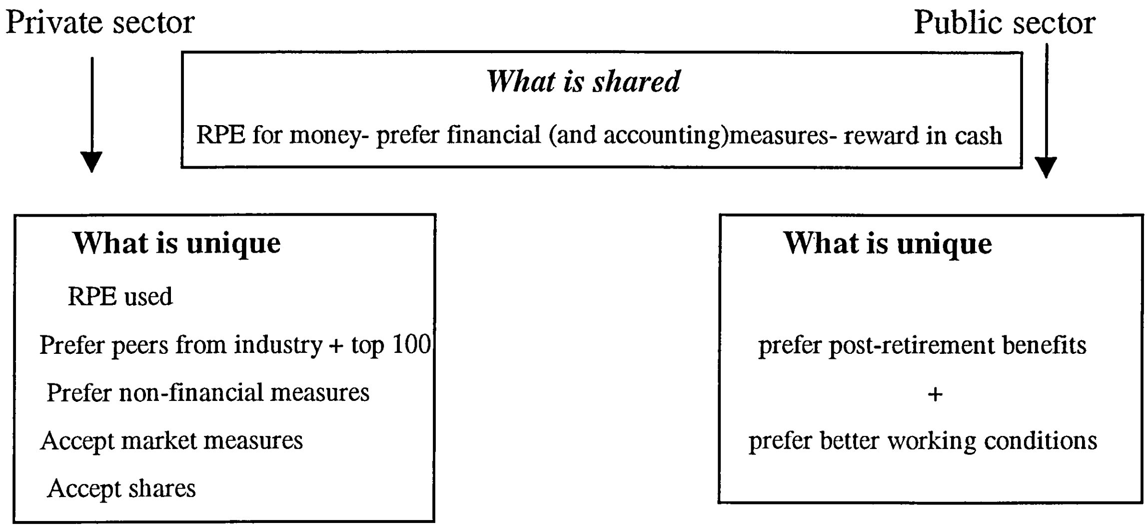

Figure (7-2)

What is shared and what is unique in the public and private sector regarding RPE

(7.3.2) Section Two: Interview data

Some differences between the public and private sectors could be recognised from the questionnaire and interview data. These differences extended to many issues such as how individual see themselves and their company, attitudes towards risk, level of pay and availability of facilities. Before exploring these differences, table (7-7) summarises the features of the private sector's work environment and the public sector's, as extracted and deduced from the data.

Table (7-7) Features and implications of public sector vs. private sector (source: the respondents' comments on the questionnaire and interviews)

Public sector	Private sector
- Red Tape	-Flexibility
- Seniority control	- opportunities for merit
- Run for purposes other than profit, but performance is not matched to those purposes	- Run and evaluated on profit.
- Employees' concerns are narrow: struggle to sort out problems	- Employees' concerns are wide; environmental awareness, expansion,
-Central authority in taking decisions	- Delegating authority and responsibility to various levels
-Heavy governmental interference	- management takes its own decisions
-Competition and creativity are not noticeable features	-Competition and creativity are fundamental feature
-Low work load & low pay	- Big work load & high pay
- No continuous development of staff's skills	- Training to develop staff skills is a basic practice
- Over employment	- necessary staff only is employed.

Differences between Public Sector and Private sector's data:

I: How respondents saw themselves

In terms of how the interviewees' saw and described themselves, in Steel company, the operations manager stated that, every employee tried -in his field- to contribute to the corporate goal via creativity, innovation and good use of time. Therefore, developing the skills of the staff was a continuous practice. He also predicted that money and esteem were important to everyone and differences in preferences depended on individuals; however, nobody preferred his income to decline, even the senior management, but money had limits in satisfying needs.

The production control officer in Steel highlighted issues at the corporate level and others at the operational level. For example, he perceived the company as: *"**We are**" the best and biggest steel producer in Middle East and we seek to expand.* The Head of the Galvanisation Division shared this attitude with the Production Controller and explained that the work system and environment in Steel strengthened the relationship between the worker and the company to the extent that people liked Steel and preferred it to their own homes. He also gave this example:

> " Literally, the work hours should finish at 4:30 PM, in reality staff normally happily stay till 7:30 PM and one might stay 36 hours continuously in the factory if there is a problem. Also staff are proud of the company's contribution to the local community and to health, safety and environmental awareness.

The Marketing manager in Dairy identified employees' satisfaction through good salary and good work environment which encouraged creativity. Because the company sought to outperform its competitors in the dairy market via better products and lower prices, this created opportunities for individuals to contribute to the company's success. New ideas and developments from all managerial levels were assured. Also, merit was acknowledged and supported and could lead to promotion to higher levels.

The chief of the delivery service of the Southern region believed that the employees in Dairy were in a better situation, compared to staff in other companies. In his view this was because, any transport service (either for people or goods) needed a good vehicle and a good driver and Dairy had both. The company had strong vehicles, which could handle the heavy load of work such as Chevrolet, Bedford, Mitsubishi and Daihatsu. Also the work was planned and allocated to the drivers so that they could do it comfortably and without feeling frustrated.

The interviews in Trade were coloured by the current financial difficulties (where the company had suffered losses and overdraft for 3 years), the lack of facilities and poor work system. The Importing Officer in Trade highlighted the lack of co-operation and initiatives among co-workers. The Assistant of the Follow- up Manager referred to the diversity in pay and work environment between individuals with the same qualification in the same job but in different companies. He also considered that money was not the solution to the current problems, there was a need for A more supportive work system. The maintenance engineer in Trade reflected on the lack of resources In providing poor services to customers.

In spite of the difficulties which have been highlighted by the participants of Trade and the disappointment with the current situation in the company, the assistant of Follow- up division's manager, believed that the situation could improve since he stated:

> We do not lack anything to succeed, we deal in goods with a rapid rotation rate and a high rate of liquidity. I believe we can pay back the bank as scheduled. We are required to compete with the private sector while I have my hands tied by restrictions, red tape, over-employment and at the same time we do not have the facilities which the state gives to encourage the private sector.

In addition to the differences in the employees' view of themselves in the three companies, some features of the organisational culture of each company and their implications for the control system are highlighted in the following section.

II: Attitudes towards competition/ risk-taking

The manager of the Galvanising division reported that staff worked enthusiastically and took risks because they participated in the company's success and made suggestions at all levels. Even the fact that the company had an overdraft currently, did not cause him any worry because he believed that:

> There is no such thing as a "steady state", a project might not make profit straight away all years through. If some circumstances caused losses, it is the duty of the labour force to support the company in difficult times just as they enjoyed the profits in the good times.

The Galvanisation manager in Steel, argued that there was a high level of aspiration among the employees and the company encouraged this attitude by internal comparisons and by an external comparison for the whole company.

The participants of Dairy shared the same attitude towards accepting competition as those participants of Steel. The Managing Director of Dairy stated that if the management feared competitors, it would do nothing. Therefore, its task was not to move in the shadow of competitors, but to stand up and compete with them. Thus, the company managed to create a place for itself in the milk and dairy market through gradual and steady expansion. On the other hand, the managing director indicated that there was already high pressure on the manager in Dairy. This pressure stemmed from the fact that managers were challenged to compete with companies with bigger investment, more advanced technology and better distribution channels. For example, the company competed with Qangary which is a Saudi company with considerable resources and Halwani which could invest in constant advertisements on the TV at peak time; something which Dairy could not afford, or not for the same period of time. However, the general manager of Dairy considered that the managers had succeeded in that challenge and the evidence was that Dairy now was one of the 3 leading companies in the milk and dairy market in the country.

On the other hand, in Trade, the importing officer gave an example of the attitude towards risk in his company:

"Colleagues in the Finance department have returned -many times- a letter which I sent to them to pay a supplier, each time they ask for some more information, documentation. They want to protect themselves when it comes to accountability and the result is, more time is spent doing a job"

However, The questionnaire data supported these differences. The T test of differences pointed at significant variations between the private and public sector in the employees' attitude towards competing with the average peer group or the best. The mean for choosing the average of peers is higher in the public sector than the private sector. This provides further evidence -in addition to the interviews'- for the low risk-taking in the public sector compared to the private sector.

III: the level of pay

The assistant of the Follow- up Manager in Trade referred to the gap in pay and the working environment between individuals with the same qualification, in the same job but in different companies. The financial reports and internal documents of the three companies under investigation, showed that remuneration in the private sector was '2- 3 times higher than in the private sector as detailed in table (7-8) below:

Table (7-8) Wages in Trade, Dairy and Steel (1996)

company	number of employees	average annual wage (£)	total annual wages (£m)
Trade	2600	3787	9.846
Dairy	850	6362	5.407
Steel	3600	9202	33.127

Table (6-9) shows that the lowest average in the three companies was in Trade while in Dairy it was about twice as large as the average annual salary in Trade. The average salary in Steel outperformed that in Trade and Dairy and reached about 3 times the average in Trade and one and a half that in Dairy. That was one of the features of the public sector in Egypt, where wages were lower than those in the private sector.

There were two implications concerning the level of pay and motivating employees. In Trade, the low wages was one of the reasons which contributed to the employees' dissatisfaction. The importing officer shared the disappointment with the Head of Follow- up Division who explained:

> We work under pressure, one might do the work of two although paid less than one's peers in other companies. For example if you look at an accountant here and one in a bank, you will find the workload is different, the work facilities are different and the pay is much better.

In Dairy, the high basic salary of the sales representatives was believed -by the marketing manager- to leave little opportunity for rewards to motivate employees. The marketing manager in Dairy argued that, if a sales representative received for example £200, if it rose to £500, this might motivate him to work harder but if he was receiving £1000 and it increased to £1500, then he might not be interested in collecting more. The big salary provided good satisfaction for his basic needs and more money might gradually lose its ability to motivate him. The danger here was not that his performance would stay constant but it might decline because of the competitors' push. In that case, other motivational tools (e.g. encouraging ambition, promotion, creativity, ...etc) should be considered and that was what Dairy was adopting.

This practice has been discussed in the literature (for example Emmanuel et.al. 1990) with reference to the level of pay and that of changeable reward. Setting the highest level of wages has been argued to be attractive for employee and motivating at the same time. More investigation for this particular pattern of remuneration in Dairy company will take place in chapter eight.

IV: Availability of facilities

The Maintenance Engineer in Trade and the Importing Officer reflected on the lack of resources in providing poor services. The former stated that using poor quality material and fuel and employees with limited skills were behind the poor services provided to the customers. The importing officer explained that his work involved a lot of contact with foreign suppliers and this needed a good communications network. The company's current telephone system was out-of-date and unreliable. These issues made doing a job, both more difficult and more time-consuming. On the other hand, the Marketing manager in Dairy reported that one of the company's pillars of success, is through acquiring new technology and communications systems. The company's head office and factories provided facilities which were supportive for the staff. Steel's operations manager stated that the company invested in technology in the new factories which it established and in the renewal processes. An up-to-date and reliable communications network existed where the company was open to the industry nationally and internationally. The company's home page on the internet provided a useful tool for both the company and potential investors to interact.

The following section highlights aspects in the organisational culture of each company and their implications for the control system. In spite of the difficulties which have been underlined by the participants of Trade, the Assistant of Follow- up Division believed that the situation can improve as quoted in the section about "How respondents saw themselves", page 187.

Organisational culture

There were various aspects of organisational culture that could be traced in every company. In Steel for example, the management believed that the best person to provide a solution for a problem, was the one who would do the job himself. Therefore, most of the proposals and the QCS (Quality Control Service) were suggested and implemented by the shop floor workers. Competition, employees' participation and management support were basic values of the company's culture, as the Galvanising manager reported. Management at all levels, was supportive to the levels below, and there was a special concern from the company's vice president for the technical issues. That emphasised the importance of the non-financial aspects of the work. Combined with that were, the open environment and the flow of communications between the various managerial levels. Also, providing training and developing skills programmes for employees has been a continuous practice by the company. This training took many forms, either internally in the training centre of the company or externally or abroad. This practice was applicable to all managerial levels from workers, foremen to engineers and administrators.

The first feature in Dairy's organisational culture was encouraging competition among employees via internal and external comparisons. When doing so -as the marketing manager stated- the company depended on providing products with higher quality and lower prices (low price, vast margin). Nevertheless, the company did not become involved in "price war" with competitors. Alternatively, the company sought creativity and controlling costs and working more effectively. In order to undertake this strategy, the company depended on quality and customer care as the way to achieve its goals.

The T test of differences showed significant differences between the public sector data and that of the private sector in terms of employees' participation. The mean of participation was higher in the private sector whereas the mean of being consulted was higher in the public sector.

(7.4) Part four

Analysing data by attitude towards RPE

In order to investigate whether this picture differs according to the managerial level or a preference for RPE, the T test was operated and following are the results.

Splitting data by preference for RPE

The frequencies of the whole Egypt data showed that 45.1% of the respondents accept RPE as an evaluation and reward technique, 42.2% did not specify whereas 7% clearly rejected RPE. When tracing the differences between these three sub-groups of data, the T test showed that there were significant differences (at p= .05) between those who agreed on RPE, those who disagreed and those who were neutral about RPE.

Regarding the "agree"- "disagree" groups

The table shows that those who approved RPE as an evaluation and reward technique believed that they could gain money by it. They also took some part in the performance system of their companies and their performance was matched against that in the previous periods and with peers. However, in this group's view, the comparison under RPE should be made with the average of the peer group and not its peak point. Also performance should be measured in both financial (e.g. measurements of achieving budget) and non-financial terms (e.g. customer service measures).

This data reveal that those who respond to RPE, do so to earn money (and not esteem). This disproves the theoretical assumption of social comparison theory (Young 1986, Fredrickson 1992) and this could be extended to expect that employees' attitudes, perceptions and reactions to the package's design and components would be driven by their primary motive which is earning money. Hence, employees preferred the performance measures which would not diminish their reward under RPE scheme.

Regarding the "agree"- "neutral" groups

The T test shows significant differences between these two groups regarding: the ability of RPE to monitor effort, the reverence of RPE for non-senior management, compared with peers from the same company, preferring accounting measures, cash and better working conditions.

The main point to be observed here is the difference between the two groups regarding the monitoring role of RPE. In this study, RPE was measured by the summation of answers to its motivational and monitoring abilities, so if there is a significant difference between two groups regarding monitoring, this meant that half of the measure was controversial between the two groups.

Regarding the "rejecting"- "neutral" groups

The T test indicates that there are significant differences between those who reject RPE and those who are neutral about it regarding the motivational and monitoring of RPE and its ability to generate money for them. The two groups also differ in their participation in the control system, comparing performance to the past and to peers and the relevance of RPE at all managerial levels. The two groups also disputed whether performance should be compared to the average or the top of the peers and whether performance should be in non-financial terms. The differences extend to all forms of rewards under investigation.

While the basic difference between the "agree"- "neutral" group was about the monitoring ability of RPE -where the former group approved it whereas the latter did not- the conflict between the opposition group and the neutral group extended to both the motivational and the monitoring abilities of RPE.

Overall comment

The following remarks could be made regarding the T test for differences between respondents who agreed (45.1% of the total respondents), disagree (7%) and were neutral (42.2%) to RPE, while 5.7% did not answer the enquiry:

- There is no dispute between those who agreed and those who did not agree on RPE regarding its motivational and monitoring roles, nor regarding its potential to produce money for the participants.
- There is a conflict between those who agreed and those who were neutral regarding the monitoring part of RPE. Given that 45.1% agreed on RPE, and 42.2% was neutral, then, RPE is welcomed in a weak way. That is, it is almost the same for respondent to accept RPE or not care about it. In either case, the respondents approved it as a mechanism which could motivate employees and generate money for them, but not as a mechanism for monitoring employees' efforts in work.
- Those who rejected RPE showed greater suspicion towards both the motivational and monitoring abilities of RPE and to money being gained through it, than those who were neutral about it.

Summary

In this chapter, the data of the questionnaire, interviews and other documentary sources have been analysed. Being a summation of the individual companies, the questionnaire data of all Egyptian companies showed a lack of acceptance of RPE, and if accepted, the aim was to gain money rather than esteem. The preferable design for RPE was to use a peer group from the company, then industry and region and performance is sought to be in financial and non-financial terms. Many forms of rewards were welcomed: cash, shares, better work conditions and post-retirement benefits.

Respondents of public and private sectors shared the attitude to accept RPE to gain money rather esteem, not to decline the importance of financial measures of performance, to prefer accounting measures over market measures in RPE packages, and to take its reward in form of shares.

However, there were some aspects of dispute between the two sectors regarding the organisational culture, level of pay, attitude towards risk, availability of facilities. For example, a strong implication of being a public company (Trade) was the governmental interference in planning and running the company, that was seen as a loss of controllability which hinder the appeal of RPE. The poor facilities in public sector resulted in the respondents preferred to get RPE reward in form of better work conditions. While in the private sector companies (Dairy and Steel) higher tendency to take risk led to preferring peers from the same company, industry and top 100 companies and performance to be in both financial and non financial terms. Higher salaries made respondents in private sector prefer reward in cash and shares. In private sector also, RPE was correlated to using market measures and competition which the companies were exposed to, was one major factor behind applying RPE. The environment of private sector (rather than public sector) seems generally relevant for applying RPE and internal comparisons in the company was seen as another version of RPE relevant for middle management. Chapter eight reports the data of United Utilities in England. This includes the data from various sources, integrated to present an outline about the company, the control system and RPE.

Chapter Eight

England Data- United Utilities plc

Presentation, Analysis and Commentary

Chapter seven reported the Egyptian data all together and on different levels. The questionnaire data of the Egyptian companies -taken together- carried some features from the individual companies. There was lack of acceptance of RPE as in Trade and Dairy individually. However, if applied, it was expected to provide money but not esteem as the picture of Trade and Dairy told. The preferable peer group was that which belonged to the same company first (as in Trade and Dairy), the same industry (as in Dairy) and the same region (as preferred in Trade). Performance was preferred to be in financial and non financial terms (as in Dairy and Steel) and rewards were welcomed in cash (as preferred by all), shares (as in Dairy and Steel), better work conditions and post retirement benefits (as in Trade).

There were some differences between public sector and private sector with regard to organisational culture, level of pay, attitude towards risk, availability of facilities. The environment of the private sector generally seemed to suit RPE more than public sector because the former provided a supportive culture which encouraged creativity, taking responsibilities and risk, good facilities and high pay.

This chapter provides a report, analysis and commentary on the control system. This highlights the system as it is set, in terms of planning, measuring, evaluating and rewarding performance and as it is perceived by participants. Separate section is allocated for the company's practice of RPE, the rationale, potential, experience and context. A special attention will be paid to the implications of variables such as competition in the market, overseas activities, type of customers (e.g. the huge institutional customers), what is acceptable, what is fair, how the interviewees see the company, how they see themselves and the business culture. The chapter is divided into three parts; firstly: a background about the company and a summary of the control system. Secondly there is a presentation of the questionnaire data and thirdly a presentation of the interview data.

(8.1) Part One

The company's background and the control system

(8.1.1) Background of the company

United Utilities PLC was created in October 1995 following the merger of the UK utility companies Norweb and North West Water (Source: The company's home page on the internet: http://www.unitedutilities.com as checked on 11/12/1999). The company operates in water distribution, water waste treatment, electricity generating and distribution & telecommunications. The **company's Annual Report and Accounts 1999** shows that its services were provided to over 37 million customers, three-quarters of whom are overseas (in 41 countries). Furthermore, United Utilities' turnover from continuing operations was £2.276 billion and the operating profit was £ 691.0 million. The company's average number of employees was 10,500 employees. The group's headquarters are in Warrington (there is also a central branch in London). The company rates itself, as one of the world's leading suppliers of high quality utility and business support services. The company's major contribution, through its different operations and investments, is to maintain sustainable improvements in the natural environment.

Around the world, the company serves a further 30 million people from Argentina to Australia. It enjoys an operating profit after development costs of £5.1 million. New projects have been won in the United States. It seeks water and wastewater operating contracts, as well as electricity distribution and supply opportunities. United Utilities has substantial contracts in Argentina, Australia, Scotland and North America, where US Water is jointly owned with its partner "Bechtel", operates water and wastewater systems.

Bechtel is a global engineering-construction organisation. Bechtel provides premier technical, management, and directly related services to develop, manage, engineer, build and operate installations for customers world-wide. Being a world wide company, Bechtel works on a variety of construction projects in over 140 countries, with a $12.6 billion revenue in 1998 for completed work and $13.3 billion for new-booked work in 1998. Some of Bechtel's projects include building the Arab-oil transition pipeline in Kuwait, Space stations in Florida and California, the Channel Tunnel and the Hoover Dam (Source: Bechtel's web site: www.bechtel.com- as checked in 23/3/99).

For United Utilities, the home territory is the UK regulated environment and the company has been through the process of privatisation. The company has a strong financial track record and excellent relationships with international financial institutions and good access to funding for projects. Therefore, it can provide private sector investment to upgrade and operate facilities on behalf of a municipality or a nation state, with varying degrees of public or private sector ownership to suit local requirements. The size of operations in the various activities -according to 1999 Annual Report was shown as:

UK Water and Wastewater:

average 2,000 megalitres of drinking water supplied daily

40,600 kilometres of water mains

39,700 kilometres of sewers

£960.1 million turn over

UK Electricity

£357.2 million turnover

23,800 GWh of electricity

45,000 kilometres of underground cable

14,000 kilometres of overhead lines

(8.1.2) Section one: The control system in United Utilities

Features of targets:

These guidelines revealed that United Utilities was committed to help people achieve ***their potential*** and gain recognition for their contributions to the organisation. These guidelines linked the preferable features of targets to leadership. This implied two issues; first: employees' participation in planning and the importance of goal clarity. However, the guidelines drew the attention of the directors to define the key goals and prioritise them according to the overall plan of the group. No standard format for objectives was provided but the guidelines recommended the following set of features to be in the targets under "Preview of Objectives of (1997/1998):

- **S**pecific
- **M**easurable
- **A**ttainable
- **R**elevant
- **T**ime-related

The performance Evaluation System:

The Performance Management Guidelines (Appendix D-1) introduced two new policies in the performance planning and review; Performance Management Review in April/ May each year and a Learning Review in October.

I: The Learning Review

The Learning Review would develop an individual Learning Plan which would identify activities to be undertaken during the next year to:-

* improve the employee's current level of performance against agreed objectives and
* gain the level of experience and competence to work in different roles to help the employee progresses to meet his/ her career aspirations.

II: The Performance Management Review

The Performance Management Review was designed to increase the amount of shared information. In that process, an employee should receive constructive feedback on their performance and their could discuss with his/ her manager how their performance impacted the Directorate's overall ability to achieve its business goals. The Review should be based on two areas:-

- a discussion of the employee's performance during the previous year against objectives
- the setting of suitable individual or team objectives for the previous year.

The Performance Management Review discussion should rate the performance as: Excellent - Very Good- Good- Satisfactory- Unsatisfactory.

The performance rating would then be used to build rewards as part of the annual salary review in July.

Remuneration policy' objectives:

United Utilities' annual review report of 1999 revealed that United Utilities aimed to attract, retain and motivate appropriately talented individuals at all levels and sought to provide competitive salaries and benefits for all its employees. Within that framework, the remuneration committee's policy objectives were to ensure that the remuneration packages:

- were directly aligned with the performance of the Group and the interests of the shareholders; and
- fairly and responsibly rewarded executives for their contribution to the Group's performance

It is worth mentioning that, the Group compensation and pension manager who was interviewed for this research claimed that the committee's composition, operation and responsibilities complied with the recommendations of the Greenbury Report. The objectives above (attract, retain and motivate employees) and those related to keeping comparable packages to the practice in other companies, were confirmed by the group remuneration manager who was interviewed in this research. He argued that, two methods were adopted to fulfil the objectives above: first; consultation with employees regarding the remuneration plans and satisfying the professional recommendations (such as Greenbury Report).

The first observation on these guidelines, is that, they lack any "guidance" for "performance measurements". Secondly, it appears that the core evaluation criterion in United Utilities is related to the objectives and is carried out once a year. Senior management is compared to: the objectives and the FTSE 100. The directors and other levels are matched against the objectives only.

(8.2) Part Two: The research data of United Utilities

(8.2.1) Section One: The questionnaire data

The questionnaire data have been collected from United Utilities group by 26 questionnaire (as detailed in chapter 5). Details of the analyses of the questionnaire data of United Utilities are provided in Appendix (D-2). A summary of the analyses is shown in the table below.

It should be noticed that the regression results of United Utilities data should be interpreted cautiously due to the limited number of data points included (as N= 26).

In all tables which present statistics in this chapter, it should be recognised that:

1. Number of the questionnaires is: 26
2. % of agree = % of respondents who agree and strongly agree to the total
3. correlation to RPE is Spearman correlation coefficient
4. sig** = p= .05
5. sig* = p=. 10
6. all correlation relationships should be assumed positive unless otherwise specified

...company about "Accepting RPE, its objectives and elements" (N= 26)

Variable	RPE	Roles of RPE Motivation	monitoring	Objectives from work Money	esteem	outstanding work	satisfaction	promotion	Objectives from work RPE satisfies: money	recognition	both	Peers from same co.	same region	same indu.	tc
- % of agree -correlation -sig. of correlation	42.2	57.7	53.8	100 .23 non sig	76.9 .19 non sig	80.8 **.32*** sig*	96.1 -.005 non sig	80.8 .09 non sig	26.9 **.62**** **sig****	15.4 **.55**** **sig****	19.2 **.65**** **sig****	76.9 .02 non sig	11.5 **.58**** **sig****	61.1 .09 non sig	26 .7 sig

Variable	Performance measures Financial	Financial and non. F	Accounting Preferable	controllable	market measures Preferable	controllable	Preferred Rewards cash	shares	post retirement benefits	holiday	medical coverage	work condition
- % of agree -correlation to RPE - sig. of correlation	30.7 .14 non sig	92.3 .21 non sig	50 .03 non sig	38.4 .01 non sig	7.7 .28 sig*	7.7 **.46**** **sig****	88.5 .32 non sig	65.4 -.07 non sig	50 -.10 non sig	42.3 .23 non sig	50 .23 non sig	42.3 -.18 non si

The peer group	Peers from the same company	Peers from the same region	Peers from the same industry	Top 100
The description of peers in terms of difficulty	easy or difficult but attainable (30.8%)	too difficult, unfair (30.8%)	-either difficult but attainable or extremely difficult and barely attainable (34.6%)	too difficult, unfair (34.6%)

* p= .10 ** p= .05

Observations from the questionnaire

Objectives from work and the mechanism of RPE

Although United Utilities applies RPE to reward top management, only 42.2% of the participants in the questionnaire enquiry accepted RPE, and agreed it could be a motivational (57.7%) and monitoring (53.8%) tool. While all participants sought to gain money and 96.1% looked for personal satisfaction from work, 80.8% were in agreement of doing outstanding work and promotion while 76.9% for esteem. However, only 61.5% reported that money was currently satisfied with the company's pay system compared to 34.6% for personal satisfaction, 42.3% for doing outstanding work, 30.8% for esteem and promotion. Regarding RPE's ability to satisfy objectives from work, 26.9% of the respondents agreed that RPE could provide them with money only, 15.4% saw that it could provide social recognition only whereas 19.2% agreed that it could provide both money and recognition. Furthermore, each of the three outcomes was significantly correlated to RPE.

Contradictions with the current practice of RPE:

(a) Peers:

The survey indicated that respondents from United Utilities preferred the comparison with peers from the same company (76.9%), a group from the same industry (61.6%), the top 100 companies (26.9 %) and peers from the same region (11.5%). What is worth observing here is that, peers from the top 100 companies was preferred by only 11.5% of the respondents, although United Utilities uses the FTSE 100 in its RPE scheme for top management. 5 participants in this investigation represented those members. This might suggest that the design of this item in the remuneration policy was not widely welcomed across the company. However, RPE was significantly correlated to peers from the same region and the top 100 companies.

As shown in the table, 61.6% of the respondents reported that being compared with peers from the same company was either easy or difficult but in both cases attainable, and that was the biggest support to a peer group. Competing with peers from the same region or from the top 100 companies under RPE was seen as too difficult and unfair (by 30.8% and 34.6% respectively). Peers from the same industry was equally described to be either difficult but attainable or extremely difficult and barely attainable (by 34.6%), however, a total of 42.3% described it as attainable, comparing to 38.4% who considered it unattainable. The point to be observed here is that, United Utilities used the FTSE 100 as a comparison group for its RPE scheme. Nevertheless, that comparison group was described by the participants in the enquiry to be "too difficult and unfair", this raises some doubt about the acceptability which that evaluation scheme held in the company.

As for the actions which the respondents might take if they considered the goals "too difficult and unfair", the greatest number of respondents (73.1%) reported that they would negotiate changes in the system. However, 38.4% would work against the system, whereas an equal percentage of 26.9% would continue to respond positively or ignore the system.

Spearman correlation showed a moderate significant association between RPE and peers from the same region and the association increased with peers from the top 100 companies. This suggested that under RPE, the employees would likely be motivated to spend more effort when the comparison group belonged firstly to the top 100 companies, then to companies in the same region. This is consistent with the actual practice of United Utilities, which uses RPE to reward senior managers by comparing their performance to that of the FTSE 100. Also this shows that the employees in United Utilities might have a high level of aspiration. When the regression model was applied for RPE and all the peer groups, and for RPE and only for peers from the same region and the top 100 companies, both models were significant at a confidence level of 95%. However, the small number of questionnaires requires a careful interpretation of all regression output of United Utilities data.

(b) Performance measures

The use of both financial and non-financial measures under RPE was recorded by 92.3% compared to 30.7% for the financial measures only. When exploring the features of the measures, the respondents made the following observations:

Table (8-2) Features of financial and non-financial measures

The Feature	Financial measures %*	Non Financial measures %*
Comprehensive	46.1	73.1
Controllable	61.6	76.9
Time- related	61.5	61.5
Accurate	53.9	65.4

* % of agree and strongly agree to total respondents

As table (7-3) shows, the non-financial measures scored higher than the financial ones in being comprehensive (73.1% to 46.1%), controllable (76.9% to 61.1%), and accurate (65.4% to 53.9%). Both types of measures were equal in being time-related (61.5%). Although the data did not suggest that any of the two types of measures was mutually exclusive, this result held a contradiction with the current practice of RPE in United Utilities. That practice was built on financial only measures whereas the respondents preferred their work to be measured financially and non-financially under RPE. Spearman correlation showed no significant association between RPE and financial or financial and non-financial measures.

When groups of market-related measures, financial-related measures and operating measures were investigated, the most currently used measures were: meeting budget (approved by 80.8%), quality (65.4%), efficiency (57.7%), profit (53.8%) and customer service (50%). Regarding the preferred measures, 50% of the respondents reported that, customer service and quality were currently used while meeting the budget 42% reported it to be in use currently, otherwise there was a gap between how much the other measures were preferred and how much they were used. A comparative review between what was preferable and what was actually used is provided in table (8-3) below:

Table (8-3) Comparison between currently used and preferred performance measures in United Utilities

Performance Measures	Currently used %	Preferable to be used %
Market related measures:		
securities market measures	3.8	3.8
-products & services market measures	15.4	23.1
factors (supplies) market measures	0	3.8
Financial related measures:		
- meeting budget	80.8	42.3
-profit	53.8	34.6
-sales revenue	26.9	11.5
-cost reduction	38..5	19.2
-accounting measures	15.4	15.4
Operating measures:		
creativity and innovation	26.9	34.6
customer services	50.5	50
quality	65.4	50
developing new markets	19.2	26.9
human resources development	30.8	26.9
efficiency	57.7	34.6

* % of agree and strongly agree to total respondents

The comparison reveals that: the market related measures were the least used and preferred of all. Only customer service measure met the expectation of the respondents (preferred by 50% and was reported to be used by 50% as well). Quality was preferred by 65% but reported to be actually used by only 50%, then profit preferable by 53% and usable by 34%, efficiency preferable by 57% but usable by 34%. The big gap in employees' expectations appeared in meeting target which was the most preferred measure (80.8%) but reported to be used by 42%.

(c) Securities market measures

As the table (7-2) shows, 50% of the respondents recorded that their performance had been measured by accounting measures and 50% preferred these measures to be used in RPE system. On the other hand, 7.7% had had experience with market measures and the same percentage approved of these measures for RPE. The respondents reported that market measures were less controllable than accounting ones (7.7% to 38.4%). However, the mean and median supported that attitude. As for the controllability of accounting measures they were 2.84 and 2 respectively, whereas for the controllability of market measures they were 1.73 and 1. According to the coding system in this study, 2 was a “disagree” answer and 1 was a “strongly disagree”. This leads to the conclusion that respondents saw that both types of measures uncontrollable and market measures were lesser in that respect. This is another point which does not satisfy the employees because the current practice by United Utilities depends on TSR which is a market-based measure. However, 34.7% of the respondents agreed that using market measures in RPE could encourage competing with performers in other companies. Spearman correlation showed a significant correlation between RPE and market measures' controllability ($p=.05$).

(c) Rewards:

Respondents explained that their remuneration package in United Utilities included the following items:

Cash (96.2%), holiday (76.9%)), medical coverage (69.2%), post retirement (61.5%), shares (46.2%) and finally work conditions (26.9%).

Under RPE, the reward is preferred -respectively- to be:

Cash (88.5%), shares (65.4%), medical coverage (50%), post retirement benefits (50%), holidays (42.3%) and better working conditions (42.3%).

The first ranking shows “what is available" and the second ranking provides "what is preferable under RPE”. The latter preference is actually contradictory to the current long-term incentive scheme which is the RPE application in United Utilities where the reward is paid mainly in shares and, exceptionally partially in cash (as detailed later). However, 69.2% of the total respondents recorded that they were satisfied with the current pay systems in United Utilities.

As for reasons behind the employees' satisfaction or dissatisfaction with the remuneration package in United Utilities, three streams could be recognised from the respondents' comments: one stream agreed, another disagreed and the third agreed with reservations.

The "agree" stream described the pay as; a good salary package has seen regular increases, company car, health & shares, very comparative. In addition, it reflected the level of responsibility, skills and contribution to the business. The package was also balanced, comprehensive and adequate. Some reservations, it was a good salary with a bonus if the division did well and in another view, it was seen as broadly right in design but greater share incentives would lead to better incentives

Two respondents described their personal situation: **The investment executive** stated that he was satisfied with the pay in United Utilities because the salary level was the important issue at this stage of his career. Also a **Research Associate** reported that for their level of management, they considered it adequate. Share options seemed to be the only objection he/she thought everyone should benefit rather than only the senior management.

On the dissatisfaction side, the **Senior shift control engineer of Norweb** was strongly dissatisfied with the current pay in United Utilities, as it was not large enough. Other views argued that improvements in performance, flexibility, innovation etc... by colleagues and the respondent, had improved company performance nevertheless, rewards taken by senior management were not passed on! Also, one respondent would like more opportunity for employees to enjoy a "flexible" remuneration package so that they could take more in some forms and less in others. Other views saw that the cash element must reflect true salaries and your worth in comparison to your peers because the current package was undervalued in comparison with similar roles across the organisation and could produce disparity between management levels. All should receive the same formula against the measurement (e.g. all should receive shares not only just the higher levels), not as currently used where little was done to increase basic salary

Importance of the different components of RPE

In this research, the theoretical assumption implied that the importance of RPE's components was: peers, measures then rewards. Nevertheless, the evidence from the fieldwork suggested that the order of importance: measures first (46%), the type of reward (31%) then peers (23%).

Differences between managerial levels?

ANOVA test of variance shows no differences between managerial levels regarding RPE, the motivational and monitoring roles of RPE, nor the objectives from work except for promotion. The following table presents the approval which the various managerial levels gave to "promotion" as a goal from work.

Table (8-4)

Different managerial levels of approval of "promotion" as a goal from work

measure	Managerial levels: middle	directors	executives
Number of participants in each managerial level	2	16	8
number of respondents who agreed on promotion as a goal from work in this managerial level	1	12	8
% of number of respondents who agreed on promotion as a goal from work to total participants from this managerial level	50%	75%	100%
Total respondents	26		

Table (7-4) shows the higher the managerial level among participants, the more they tended to approve promotion as an objective from work. While 50% of the participants in the middle management sought promotion, 100% of the executives did and 75% of the directors who participated in the enquiry.

Regarding the elements of RPE, ANOVA test of variance indicated no significant difference between the managerial level regarding the peer groups, performance measures or type of reward. This result could have happened as an echo of the limited variety of managerial levels' representatives in the sample, as the vast majority of respondents (92.3%) belonged to the senior level (directors and executives).

(8.2.2) Section Two: The interview data

The data presented and analysed in this section, are extracted from two sources, first the interviews with the Group Remuneration and Pension Manager and the observations of the respondents on the questionnaire, who commented on the RPE. Each of these sources will be identified wherever used throughout the section.

(8.2.2.1) The interview data about the control system

Targets' attainability:

The group remuneration and pension manager stressed the importance of setting attainable targets because as he predicted:

If there is a disagreement between the supervisor and the employees about the target, there will be a disagreement later on. This happened in our Gas operations and either during the course of the period or at the end that we assess the achievability of the target and would possibly adjust it.

Assessing the attainability of targets requires not only reviewing performance but also investigating how much they achieved and the reasons behind the deviation:

"Last Christmas we had a situation where the telephone services people missed their target because they were having their own Christmas lunch then as to get people out and other people back to supply, there was no way they catch their target.

Investigating the reasons behind the deviation from the targets was not the only issue that the remuneration manager raised, but also the target measurability or quantifiability.

Target measurability or quantifiability:

The group remuneration manager re-emphasised that an objective should be measurable although this might be difficult in a service industry. However, the company tried to quantify targets, for example:

In a service standard environment, we set a target for telephone services as: 99% of calls have to be answered within 3 minutes on the telephone, this is quantifiable and measurable.

Furthermore, different objectives were drawn for the different types of activities (gas, water and telecommunications) within the corporate objectives as the group remuneration manger explained:

On the gas side, we have people living in the South West of England getting customers but the objective was not: get as much customers as you could. The objective was not financial rather it was the experience we have built in getting customers. The Telecoms activity, we've people totally devoted to developing the telecommunications and they will be targeted on how successful they are in that.

Target's time- related:

The importance of the time-related feature of targets had two sources: First, performance assessments and rewards would be set according to meeting targets in a specified period of time. Second, some employment arrangements were entirely based on time- related achievements. The example which the interviewee gave, was:

Norweb was a 50- 50 partner in a power-generating project in Lincolnshire and the contract for the manager was critically time-related. The overall project was probably two or two and a half years so his bases of employment was time related, his performance was time and quality-related, what to do and when.

Performance measures:

The data available from the interviews in United Utilities raise the following issues regarding the performance measures which will be addressed in detail in this section:

- Differences in markets
- The "big customers" implication
- The importance of non financial measures
- Market measures and employees' controllability over measures
- How the circumstances in each activity affect the performance management

1. Different turnover and different profit in each activity:

The company's annual report for 1996/1997 (before doing the interviews) showed that the company was achieving different results in different activities. For example, the gas operations were suffering losses whereas electricity was generating most of the group's profits, the remuneration manager explained:

> "At that time we were in a trial in the South West of England. Our objectives were not particularly securing huge numbers of customers but to create a number of customers to test the whole system and integrate that with our existing activities and the IT back up". So it was to sort out what sort of player we want to be? There is no point in getting customers at all costs.

The previous expansion situation in the gas operations at that time was not repeated in the other activities, e.g. electricity, communications,...etc. However, the annual financial report included a different turnover and different profits for the various activities as shown below:

Table (8-5) Segmental Information- turnover and profits (1999)

Company's name	**Business area**	Turnover £m	Profits before interest and taxes £m	% of profit to turnover
North West Water	Water and wastewater operations	905.3	394.2	43
Norweb	Electricity distribution operations	342.7	154.5	45
Energi	Energy operations	1120.9	26.2	2.3
Norweb Telecom.	Telecommunications	23.4	.2	.8
Vertex	International operations	7.7	5.6	72
United Utilities	Facilities management	193.8	28.6	14.7

Differences in the market

The high percentage of profit to turnover in the electricity distribution activity stemmed from a vast sales- low margin economics, a stable market equally pressurised where the industrial service standards should be followed as well. That was unlike the gas market, which implied approaching new customers in a gradual expansion policy, as the chief executive recorded in the 1998 annual report (page 8):

> "The Group's profits are derived primarily from our UK regulated utility activities of water wastewater and electricity distribution. These provide a relatively low risk and stable income stream"

Specific concern for the international operations:

The international markets where United Utilities operated had different implications for the performance management and rewards, as this example by the group remuneration manager revealed:

> A manager had made an accounting provision against bad debts -defence- of a substantial amount which has taken up profit and wiped out the bonus for him, for making very prudent business decision and our international partner lose too.

The group remuneration manager confirmed that it was importance to draw a balance between being "cautious" and "keeping profit targets" as the corporate mission requires:

> "We've also responsibility to the shareholders for the annual return on the investment they have made Yes, you've to be cautious but if you rely solely on a defensive approach, you'll not be able to keep your commitments towards shareholders. It needs a balance".

The concern which United Utilities paid to its international operations, led to establishing a separate division for those operations. The aim was that, the circumstances and performance of each sub-division were evaluated and rewarded separately. Consequently, staff in a specific job, division or country could get their bonuses and others did not. The group remuneration manager elaborated on this situation as:

> "We have a contract with the international arena -quite wisely I think - you've got to work bonus so that you do not affect the handcuffs in any change but to protect their account for it and put it back below the line"

2. Reasons behind the high profits of the electricity distribution of "Big Customers"

The reasons behind the major contribution of the electricity distribution in the group's overall profit was due to the company's contracts with some "**big customers**" such as

Manchester Airport, Manchester United, Marks & Spencer. This practice existed mainly on the electricity side of business. The remuneration manager revealed that the major customers' market has been opened to competition for some years now. These customers are small in number, large in size and have a facility whereby they can take the group as a whole to any demand. For example, if it was Marks and Spencer, then it meant all their outlets or Tesco's, all Tesco's supermarkets. Therefore, when these customers contacted to purchase electricity from United Utilities, that implied high risk as it was a very competitive market. Contracts' negotiations with these customers, included arrangements for: the reliability of service, at what time it should be provided, from which source and at what cost.

Importance of Non financial aspects of performance

The Group remuneration manager drew attention to two specific forms of the non-financial aspects of the work which should and were measured in United Utilities. First: quality of services and second, customer services. Quality was important to United Utilities not only in its electricity operations but in water supply and disposal as well. The company would be fined if it did not meet the service standards. For example in North West Water Limited, one of the directors there was called the "Quality Director" and his job was entirely based on quality of water supply, so he was evaluated accordingly.

Getting a feedback from the customers about the services provided was another measure of the non-financial aspects of performance. the interviewee gave two examples of this:

> We do not measure the quality of the service by: how many phone calls are answered in a given time, instead, it's how many complaints have we had. Also, I could make my electricity cheaper than everybody else but I couldn't guarantee it to be there if you switched it on. There are service standards for supplying electricity.

Market measures and employees' controllability over measures:

United Utilities (and other UK companies e.g. British Petroleum, Boots, BOC Chemicals) used **T**otal **S**hareholder's **R**eturn (TSR) in measuring and rewarding top management under RPE scheme. Nevertheless, the group remuneration manager had some reservations about TSR. That was, controllability over such measures; he speculated:

"If a player has been measured by a performance level over which he has no control, it's not fair from the individual's point of view, and this is not right either from the company's point of view and the net result is negative. There are people who do not agree on the share price and we are considering that. We work on improving profit sharing schemes by looking at performance management"

However, he highlighted the reason for using this measure as:

"Market share price is a company type of measure not an individual type of measure. If you want to compare your company to another, you search for a company's type of measure like share price"

This interpretation is consistent with the definition of RPE where "the company" is compared to "other companies" in rewarding "top management". It also implies that top management is responsible for the overall performance of the company to the extent that there is no distinction between the performance of the company and the performance of the top management.

The performance evaluation criteria

The performance management guidelines shown earlier in this chapter revealed that the basis for evaluating performance in United Utilities was by referring to targets. However, the interviews and company's report 1998 disclosed that senior management are matched against the FTSE 100 under the RPE scheme. The group remuneration's manger stated that the company did not hold any internal comparisons between the divisions because:

"If we do internal comparison within a given department, or a given function like: how many kilometres of cables you've laid this year? But another question will rise: how easy to lay a cable in Sheffield City Centre compare to laying it in the Moor? *We used to do that quite a lot in our electric contracts activities,* where we say; take the job, get the materials and get the work done and we see how they are done it under an internal comparison.

Another observation by the remuneration manager was that, the most senior management were judged -to a significant degree- on profitability (e.g. earnings per share) while other managerial levels were judged on operational measures (e.g. for gas, gaining more customers, in telecommunications, developing new services,...etc).

The reward system

In formulating and implementing its policy, the remuneration committee gave full consideration to the best practice provision annexed to the Listing Rules of the London Stock Exchange, and took professional advice from within and outside the company. At the 1996 annual general meeting, shareholders approved a new incentive plan for executives to replace the annual bonus and the granting of options under the executives' share option scheme. Reasons for the change and details of the new plans are set out below.

The previous share options plan:

In the 1998 annual report, the remuneration committee recorded that the executive directors were eligible to participate in the employee sharesave scheme. With the introduction of the incentive plan, the granting of options under the executives' share option scheme was discontinued in 1996. Share ownership was generally regarded as an effective means of aligning the interests of the executives and the shareholders. The group promoted greater ownership of shares in the company through paying incentive awards in shares and by encouraging executive directors to accumulate and hold shares with a value approximating their annual salary. The motives behind moving from the share options to the short and long-term incentives seemed to be a general trend in the utilities companies generally not only United Utilities, as the group remuneration manager explained:

> "Utilities had a hard time with it because share options allow individual directors to sit there and get the share options and make loads of money. Those gains were not linked to how they are necessarily handling the company's performance. So we should not be going down this route, and that's where some companies had their long-term plans, others have a mixture of long-term plans and share options.

The new long-term incentives plan with its tying reward to performance and to competing with the FSTE 100 was seen as a remedy for those weaknesses.

First: The Short-term plan:

The short-term plan was an annual bonus plan that was set up in 1996 where **P**rofit **B**efore **T**axes (PBT) was used as a performance measure. The target was set on two levels, basic [normal] budget and stretched budget. The plan allowed up to 40% of annual salary for executives. PBT was measured either for the whole group or group and division performance depending on the executive's position. The basic scheme was applied to the top 16 executives; for tax purposes, the basic scheme was paid in shares via a trustee with a delay for two year. However, half of the top 16 executives, who were not in the main board, could ask the trustee for the award to be paid in cash. If it was paid in shares, at the end of the year to which the bonus related, the corporate performance was checked and the award was made accordingly. A trustee would keep the shares for further two years. If for example, the first year of the plan is 1996- 1997, those who were awarded shares would not see them until 1999. The rationale for that - as the group remuneration manager believed – was to be another form of "golden handcuff".

Second: Long-term incentives plan:

Because the long-term plan for rewarding executives in United Utilities is the company's application of RPE, the details of that plan, feedback about it and the factors involved will be discussed in the following section about RPE.

(8.2.2.2) RPE in United Utilities- Content and context

This part explains how RPE is implemented in United Utilities under the long-term incentives plan, for whom and what is the expected influence of target difficulty, market measures and of varying the form of reward and any reservations or problems related to RPE.

I: How RPE is implemented (The Long-Term Incentives Plan for executives):

In the annual report of 1998, the long-term incentives plan for executives was described as rewards related to the returns to shareholders. The company's performance is assessed on the basis of total shareholder return (TSR) which includes share price appreciation and gross dividends, measured over a period of three consecutive financial years. TSR is compared with the performance achieved by the two-comparator group of companies - the FTSE 100 utility companies and the remaining FTSE 100 companies excluding the utility group. No reward is earned if the company ranks in the bottom half of that group. This practice raised some questions, for example: who is entitled to the reward under RPE and why, why TSR is used, what is the experience with it and what is the outcome of applying it (i.e. is it efficient, did it achieve its aims).

RPE for whom

In United Utilities -as in the other UK companies - RPE was applied to senior executives only. The group remuneration manager expected it to be difficult to apply it to other managerial levels because:

> "first of all I've got to set what measures to use and get people to accept them. As in the case of a teacher, is it the absolute number of GCSE passed students will measure the teacher's performance or the real successful teacher who starts from a low basis pupils

> and get them through the final exam. Who achieved more? That's the problem down the organisations, what's being measured? and who you are comparing with, Motor electric companies? Obviously not. Scottish Farms? Yorkshire Water?"

The researcher argues that choosing the measurements and the peers are general issues related to any application of RPE not only to the non-senior managerial level. However the interviewee suggested another version of RPE for managerial levels other than senior management. He argued that the majority of the company's activities were in a regulated market. Therefore, the performance of the employees whose work was directly related to service standards, should be compared to these standards. The problem -in his view- was as ever, the practicability and the creditability which the system might have.

Among the respondents who wrote comments in the questionnaire on "who should be rewarded by RPE", 6 out of 10 saw it was applicable at all managerial levels. A respondent thought it should be used for middle and senior management while 3 believed that it should be used for none because it could not be done fairly and matching against targets should be used. However, when the respondent were asked if different patterns (and what) of RPE should be used for the different managerial levels, the comments included more detailed views. Respondents recorded that performance was currently measured in absolute (not relative) terms and rewarded against specific objectives but no comparison to peers made. Rewards were linked to performance against financial targets and personal objectives rather than performance against colleagues. That performance was based on skills and abilities for the role as stated in role profile for the job, competence and the level for each competence was agreed with the line manager. The degree to which these competence were met, determined (or used to) the position within salary scale. Regarding "who should be rewarded on RPE", the comments suggested that no one should be rewarded by RPE, all should be objective driven and independent. Also co-operation would achieve more than competition. In a second view, it was argued that RPE was not considered a suitable benchmark against which indicators could be measured.

A third prospect maintained that the system had developed sufficiently since Vertex (one of United Utilities' group) was formed in June 96. A view, which emphasised the gap between the pay of different managerial levels, considered that the senior management ensured they got their "snouts in the trough" whatever happens and they "take a bigger slice of the cake" whatever company performance, is. On the other hand, middle management were rewarded for enforcement and acted as soundproofing from what was expected by junior staff. One respondent saw that there should be a difference in the application of RPE between the managerial levels in terms of financial bonus but not in terms of a league table and recognition.

The way in which United Utilities applies RPE, leads to two arguments regarding the peers: why two peer groups were used and how they were perceived in terms of difficulty to compete with.

Why two peer groups:

The group remuneration manager explained the rationale behind using two peers groups (the FTSE 100 and the utilities within the FTSE 100):

> "We mean to challenge our executives, and to be in our own field, with the utility people. Yes we are a FTSE 100 but the problem is that, the FTSE 100 contains all sort of companies and all sort of markets. So major institutional shareholders said, look at utilities. Yet again this is very simplistic because you got Telecomes, gas, electricity and there are a couple -like us- multi utilities, and the take over affect TSR.

The participants in the questionnaire investigation recorded other targets which they preferred to be compared with, such as: performance of peers in the same department, individual targets and a respondent recorded that within his/her group, they compared with last year's performance.

How difficult to compete with the FTSE 100

Two reflections of target difficulty could be identified; first, the company realised that difficulty and set different pay bands for different achievements, and second, the employees' reaction to what they consider unattainable goal. Firstly, according to the long term incentive plan, if the company was below the 50th place, no reward and to be among the top 25 was not attainable so the challenging and attainable band was to be between the 25 -50. The group remuneration manager elaborated on that:

> " We believe that we do not have a chance with the top quarter of the FTSE 100 because it includes the Telecomes companies. What would we do with Vodafone or Orange, We're in a mature market, Our executives know that the top level of bonuses is not available.

Secondly, the group remuneration manager drew some expectations for the employees' reaction to unattainable targets:

"They certainly will not work to achieve it because they would say, we know for fact that we can't achieve it so why should we bother, we'll do what we think is right. The whole process then be a dispute because whatever you do on this performance measures type system, you've got to get everyone to buy in to the process".

The remuneration system in United Utilities aimed -as mentioned earlier- to align interests not to create dispute. Therefore, an RPE scheme with unattainable targets would be against the objectives of the remuneration programme. A participant in the questionnaire enquiry recorded that he/she would get very de-motivated due to target difficulty.

Among the issues related to the targets in RPE scheme in United Utilities, were including non-financial targets and assessing TSR as a performance measure.

Measurements under RPE:

The non-financial objectives under RPE scheme

United Utilities was concerned with some non-financial issues such as quality, efficiency, commitment to the community, customer care and meeting service standards. Nevertheless, these non-financial aspects were not included in the RPE system. The group remuneration manager mentioned that the notion had been discussed in the company before, but it was decided that it was not the time to apply it.

In can be argued that the group remuneration manager adopted "an extreme" interpretation for "non financial measurements" to mean environmental objectives although it can be understood as the "non-financial aspects of any job" such as quality, keeping time, innovation and creativity. However, the chief executive reported (The annual report 1998) that improving performance should be through efficiency, reducing costs and approaching new markets.

Argument about TSR

The interviewee put forward an argument about TSR and good management by debating:

"Suppose we were the most profitable utility company in UK, would this make us the most popular? Probably not. In fact, some companies with the highest TSR, in certain circumstances may have the poorest management because somebody comes in and says: that company is worth a lot more, I'm going to buy it. Then the company's share price is going to rocket, so the TSR, and I get big rewards.

The remuneration manager's reservation on TSR was not the only one which he invoked about the application of RPE in United Utilities, but he developed an argument about the long-term consequences of RPE.

Reservations on RPE

The remuneration manager concluded his dissatisfaction with the long-term incentives plan for executives in United Utilities after 2 years experience with it. The sources of this attitude was not the outcome of the plan or what the company experienced with it but the essence of the scheme itself as he explained:

> "I don't think the long-term plan is quite as serious as people think it is. I have some doubts that these plans are achieving their objectives, the objective is high, reward according to the performance of the company. The simple objective is very hard to achieve meaningfully, fairly because a lot of it is high profile, political service and you can't be that simple. This is so much an element of form of bonuses at the most senior level in the UK as much as any performance measure is profit target. I'm not convinced by the long term plan because I think people are saying it's more related to performance than the mere granted share options is. It could be, but there are other ways to make share options more performance related. **The problem -I think- is getting a true measure of performance**. OK, if it is a stable market, one could argue that TSR might be right.

The interviewee's concern about the measurements is supported by the questionnaire survey in United Utilities -presented in part two of this chapter- where the respondents placed importance on performance measurements more than on targets or reward. The measurements were observed with relation to many issues e.g. measuring the non-financial aspects of the work, business strategy, environment, type of market, controllability and the debate about market measures. Targets were only related to attainability while the form of reward was related to the preferences of the different managerial levels. Therefore, the performance measurements were observed to be more problematic in reality than the other items of RPE.

Although a participant in the questionnaire enquiry recorded that RPE would focus the effort on business targets, two other participants considered RPE as very unfair with poor management and introducing competitiveness into team environment would undermine group spirit. Moreover, a project manager sent back to the researcher a page of a funny "cartoon" story about tough management (copy exists in Appendix D-3).

Varying the form of reward under RPE

Varying the form of reward was discussed with the group remuneration manager and he argued that

> "My view is this, if I give you £1 as your wage, you'll get 55p. I would ask, would you be happy if I make your 55p, 70p, 90p £1.50? it's one of my objectives to try to maximise the benefits for the individual. I can say the £1 will be £1.50 in 3 years, are you still interested? One says I'll take the £1 because I need food, the other says I'll wait. For example, we provide medical coverage free (it costs me £300 a year), this is valuable to someone, but not to the rest. Some prefers tokens from Debenhams. We give people the right to make a choice. We try not to give immediate cash but something more valuable. The complication with this is, the communication to the staff and getting them to understand and trust in some cases.

Different forms of rewards for different managerial levels;

The group remuneration manager debated that different managerial levels could have different preferences, for a number of reasons:

> Certain people prefer shares because it's more tax efficient. But the other problem is, you should first satisfy basic needs. We pay somebody the minimum wages (e.g. £3.50 per hour) so if you're expecting them to contribute, there is no chance. You'll have these (restrictions) in the organisation. So remuneration arrangement should be tailored.

This point is consistent with the questionnaire data where different forms of pay (cash, shares, holidays, post retirement benefits,...etc) gained different approval (as presented in part two in this chapter). Furthermore, the respondents added other preferable forms of rewards such as telephones and cars.

The following part is an exploration of the context of applying RPE and the performance management generally in United Utilities, as could be inferred from the data available.

The context of RPE

Exploring the context of RPE will include issues such as the business environment (stability of markets, the Far East crises), business culture, how the employees see themselves and whether individuals influence performance.

Business Environment

The group remuneration manager predicted that perceiving the difficulty of a target would be affected by the nature of the market. He suspected what the people assumed, that some targets were attainable because a lot of markets were fairly stable and certain.

In his view:

> It's not as stable as people believe. Secondly, those people are intensively in the private competitive market. We are relatively fairly stable and more on the water side but less in electricity side. On one side the water and electricity distribution, the market is a kind of regulated and monopolistic, in the middle, telecom and the supply of electricity with a competitive situation in the environment and that is high-volume, low-margin business and lots of the same on the electricity side. Gas and telecom are highly competitive environment. The company is looking -as well as the international market- to grow.

Circumstances in the different markets affect performance, example of Asia crises:

United Utilities used TSR as a performance measure in RPE. TSR might be affected by many market factors. For example, the market could be generally down, the FTSE 100 might be generally down but -quite often- different things happen in different sectors. The Far East crises badly affected financial institutions in the FTSE. That was an effect on the reference group and hence on RPE. The company has some operations in Malaysia but the influence of the crises is not the same as it is on the whole financial world.

Factors that should be considered regarding RPE:

The following factors were extracted from the comments on the questionnaire as to what should be considered when RPE is investigated:

Business objectives achievement - individual objectives achievement- fairness- impact of inflation

Design of RPE

Clear + measurable targets- ability to achieve targets- performance feedback- recognition of fairness by employees Fair achievable stretch targets - consistency - delivering of produces to schedule- customer satisfaction
Skills and abilities level - effectiveness- comparable jobs in related industries
The level of reward - the circumstances surrounding the level of performance -
Fairness- simplicity - transparency
Evaluation of like/ similar jobs
Experience - impossible to generalise roles even with title/ job description
Fairness- Fairness- Fairness- Fairness-

Against RPE:

- individuals when the overall business performance may be poor - impact on those individuals (probably 50%) who are below average.
- Disagree with RPE, targets must be individual

NOT, as performance should be considered against company + individual goals
NOT, by comparing against other individuals, co -operative teams work
Culture would BE DAMAGED by RPE

(8.3) Part Three

Comparison between Egyptian and English data

The following table summaries the questionnaire data of the Egyptian companies collectively, individually, and classified into sectors, compared to the English data. It should be mentioned that variables in the table are those that were significantly correlated to RPE at confidence level 95% (unless otherwise stated).

Table (8-6) Comparison- The Questionnaire data

Variable	**Private sector**	**Public sector** Trade co.	Dairy co.	Steel co.	**All Eg. data**	**United Utilities**
Accepting RPE	45.7	44.5	38.1	57.1	45.1	42.2
Objectives RPE satisfy	money	money	money	money-esteem*	money	doing outstanding work-money-recognition
RPE design **Preferable peers**	same industry-top 100	same region-same company	same company -industry - top 100*	same company -industry-region	same company - industry-region	top 100 - same region
Measures	Non Financial - financial	Financial	Non Financial - financial	Non Financial - financial	Non Financial - financial	none
	Accounting-market*	Accounting*	Accounting - market*	N/A	Accounting	Market*
Rewards	Cash- shares	Cash- post retirement	Cash- shares	Cash-shares-holiday*	Cash- shares-better work conditions-post retirement benefits-	none

* P= .10

Comparison between United Utilities and Dairy

In this section, the questionnaire data of Dairy company in Egypt and United Utilities in England, will be compared on the bases that, the two companies applied RPE and both belong to the private sector. Also, the number of questionnaires collected for each company was relatively close (21 for Dairy and 26 for United Utilities).

Although both companies used RPE to reward top management, T test of differences shows that there was a significant difference between approving RPE in Dairy and in United Utilities. The mean was 6.9 for Dairy and 6.1 for United Utilities and the median was 7 and 6 respectively for RPE which was a combination of 2 variables; motivation and monitoring. The mean and median of United Utilities indicated a tendency to a neutral view towards RPE, whereas the response of Dairy participants left this neutral position and moved towards approving RPE. When examining the individual components of RPE, between the two groups, the data revealed that the respondents of Dairy scored higher than those of United Utilities' in approving the motivational and monitoring roles of RPE.

However, in United Utilities, the correlation coefficient showed a link between RPE and doing outstanding work, while in Dairy the association was between RPE and esteem. In United Utilities, respondents sought money as an objective from work generally but when they were asked if RPE could provide money, recognition or both, the approval was limited for the three (26.9%, 15.4%, and 19.2%). Nevertheless, these observations were significantly correlated to RPE which can be read as: United Utilities' respondents agreed -to a limited degree- that RPE could provide money and recognition and RPE would be strongly accepted for this ability.

As for the contingents of RPE, T test for variance showed no significant differences (at p=.05 or p= .10) between Dairy and United Utilities regarding the preferable peer group/s but there were significant differences between the two groups in terms of preferring the financial measures (where the mean was 3.6 and 1 respectively). These means represent a tendency to accept the financial measures in Dairy and an obvious rejection in United Utilities although both companies applied RPE using financial measures. However, there was more rejection to them in United Utilities (30.7% comparing to 61.9% in Dairy) while the non-financial measures were highly preferable in both (92.3% to 85.7 in Dairy). The marketing manager and the managing director in Dairy explained that the financial aspects can not be ignored in Dairy which sought to outperform competitors by providing better products at lower prices. In United Utilities, the group remuneration manager indicated that the financial measures currently used in RPE schemes were subject to many influences nationally and internationally. For example the Asian crisis affected United Utilities' operations in South Asia, opening the electricity market to competition in the UK affected the financial outcomes and hence the financial measures of the company. This means that each company's experience and strategy impacted the attitude towards the financial measures. Market measures were specific type of financial measures which held significant differences between the two companies. United Utilities had more experience with using such measures than Dairy. Nevertheless, the respondents of United Utilities disagreed that using market measures could encourage competing with performers in other companies whereas, the respondents of Dairy were neutral about it.

In terms of the preferred form of reward, T test showed significant differences between the two groups regarding receiving the reward in cash and in holidays. The mean of these variables, indicated that the respondents of Dairy preferred the cash and holiday forms more than the respondents of United Utilities did.

On the agreement side between the two groups, the experience and pattern of RPE in United Utilities seems close to that of Dairy company in Egypt where both used two groups of peers, one of direct competitors and the other of wider industry. Both used it for top management only and measured performance in financial terms only. It might also be concluded that the pressure of competition and links to the market (local or international) could be behind deciding to use RPE. It also seems that RPE was used for top management only in other UK companies that the researcher identified as it was used, because that level of management performance could be deduced from the whole companies' performance. However, if RPE was considered for other levels, probably, the division performance could be taken as an indicator of the individuals' performance. Also in Dairy and United Utilities, peers from the top 100 companies are preferred, with non-financial measures but not varying the form of reward. The situation of the two companies tends to suggest that RPE might link to a high salary because of the risk involved. This equally implies that the context and environment which is required for RPE, is lacked in the public sector in Egypt.

Summary

In United Utilities, two main themes were recognised to affect the performance measurement: market circumstances and the measurement system. These circumstances included the market domain, type of activity and the existence of "big customers". The measurement system implied: measuring non-financial dimensions and controllability over measures.

The questionnaire evidence suggested that RPE was seen as a motivational tool through which employees could gain both money and recognition. Under RPE, performance was preferred to be measured in both financial (not market based) and non-financial terms, be compared to a peer group from the same region and the top 100 companies. Rewards were preferred in cash, shares and medical coverage. However, there are some reservations about using RPE for other than senior management and using market measures (although RPE was found to be correlated to market measures at p=.10). The interviewee raised doubts about the suitability of TSR measures -which the company currently used- in RPE schemes. The major problem, which the interviewee saw with RPE, was "measuring performance" more than any other issue. Chapter nine discusses the results of the research with relation to the accounting literature about performance and the literature of RPE.

Chapter Nine

Discussion of the Results

(9.0) Introduction

Chapters 6, 7 and 8 included a report, analyses and commentary on the data of the three Egyptian companies and the English company. This was done to fulfil the aim of this research. The aim was to investigate the content and context of Relative Performance Evaluation (RPE) as a motivational technique within the managerial control system. RPE was developed by Holmstrom (1982) in an economic perspective and was modelled within the Principal-Agent framework. RPE -in essence- is a mode of benchmarking in which rewards are based on a comparison of the performance of an agent with that of his/ her peers. In this research, a number of contradictions and gaps have been recognised in previous studies of RPE (as detailed in chapters 3 and 4 in this thesis). Therefore, it was considered to shift the debate about RPE from the economic ground to an accounting ground. This has meant two issues: firstly, it centred the arguments on the organisation (with what this implies in terms of examining the individuals' attitudes, the systems and the environment). Secondly it opened the discussion about elements which have either been taken for granted before (e.g. RPE could, universally, motivate employees) or have been overlooked (e.g. what design, measures, context, individuals should RPE involve) as reviewed in chapters 2 and 3. When focusing the research arguments, the orientation was to relate them to the main stream debate about performance in the accounting literature (discussed in chapter 1). Thus, the investigation was focused (chapter 5) on whether RPE could motivate employees, by which design (i.e. which peer group/s, performance measures and rewards). Special attention was paid to examining the proposed motivational role of RPE under the social comparison theory. That theory assumes that comparing the performance of employees to that of their peers, would motivate them because it could provide both money and esteem.

In order to carry out this investigation, the research design was a case study research (chapter 5). The number of cases was decided so that it allowed an in-depth examination and avoided increasing it to the extent that it might lose the depth and approaching the survey type of research. It was also thought that what was needed was an approach which allowed gathering data about why RPE was used, why not, what pattern, rationale, experience and outcomes. Therefore the survey type seemed inappropriate. Initially, the wish was to investigate the technique in two environments (Egypt and England) and to explore differences. However, access was accidental (as in the case of Trade company) and restricted (as with Dairy, Steel and United Utilities). Data were collected from the four companies by questionnaire, interviews and internal documents (as reported and analysed on different levels in chapters 6, 7 and 8).

This chapter is divided into five parts. Part one records some observations on the control practice. Part two is allocated to RPE, its application, potentials and experience. Part three discusses the content and components of RPE. Part four deals with the context and relevance of RPE. Special concern will be paid to detecting the rationales offered by participants for RPE, their expectations and actual experience with this scheme given that Dairy company in Egypt and United Utilities in England have been applying it for two years. The implications of national culture dimensions (as defined by Hofstede 1984, 1991) in the two countries and RPE will also be investigated. The work in the this discussion will interpret and link the results to the literature of RPE and the wider accounting literature of performance. Part five provides a detailed comparison for the research arguments, tools, theoretical foundation, empirics and findings to the previous studies in RPE (specifically the only case study in RPE by Maher 1987).

(9.1) Part One

Observations on the control practices

Type of budget

Before exploring the findings regarding RPE, some observations are made about the general control practice in the companies under investigation. First, the budgeting practice by Trade showed an example of Hopwood's (1972) budget constrained style with the expected high reliance on accounting measures, whereas with Dairy and Steel it had a rather profit conscious style with more use of non-financial measures. Furthermore, The practice of Dairy and Trade imply what Hopwood (1972) referred to as "*the bottom drawer phenomenon*" where upper- level managers use the budget for motivational purposes while keeping another realistic set of numbers for planning in the "bottom drawer" of their desks. Steel did not follow this policy, instead, the company motivated employees by announcing that last year's achievement will be the minimum for this year's target (chapter 6, p. 154).

Assessing the circumstances of performance

The data of Trade (The maintenance engineer- Appendix C-3 p. 61) showed that staff felt disappointed with the current financial difficulties which the company suffered especially because they considered that they worked hard with poor facilities, discouraging policies and low pay. The Follow-up assistant manager argued that "*if the impact of governmental interference was removed from performance measures, it would show that we achieve better than the year before, in spite of the continuous losses*" (chapter 6, p. 148). This invitation for assessing the circumstances around performance when evaluating staff's work was recognised in the literature by Kren and Munter (1995). They found evidence on this prediction in their study when a manager explained that "*while his performance was not as good as others, but it has improved than the previous* year and with regard to the chaotic environment which they worked in, that was outstanding!"

Responsibility about decisions and performance evaluation

Data of the Trade, provided an example on lack of allocating responsibility about decisions to those who had taken those decisions (as reported in Appendix C-3, p. 60). The influence of such behaviour was that, it destroyed the responsibility accounting principle and caused disappointment between employees particularly when this affected their evaluation and rewards as in the severe case of Trade. The Assistant of Follow-up Manager confirmed that they *"were not responsible for the governmental decisions of importing farming machines from Eastern European countries which led to losses"* (chapter 6, p. 148). Nevertheless, the outcome of these decisions made them miss their rewards.

For such patterns, Ezzamel (1987) considered it a starting point in divisional performance measuring system to split responsibility about decisions between divisional managers and central managers. Thus, the former handled operating decisions whereas the latter took strategic decisions otherwise, sup-optimal divisionalised performance would result. The practice of Trade contradicted Ezzamel's suggestion as there was no split of responsibility about the different decisions between the managerial levels. This pattern stemmed from the culture of the public sector in Egypt that included central decision making and no existence of delegation of authority. On the other hand, this managerial behaviour also related to the lack of risk taking, therefore, every manager or officer wished to protect himself/ herself by keeping all the authority –if possible- in his/ her hands.

Impact of divisions' interdependence on Performance

Ezzamel (1987) reports that the empirical results about the impact of divisional interdependence on performance are neither comprehensive nor conclusive. The data in this research were in line with this view as in some practices divisional interdependence had supported and enhanced performance (e.g. in Steel) and in other, it caused an obstacle to performance (e.g. Trade). In Trade, the Importing Officer gave that example (Appendix C-3, p. 70) when his colleagues in finance returned the documents of paying the foreign supplier many times and how this caused him problems with that supplier. In his view, colleagues in other departments did not co-operate with him as should be.

In Dairy, the Marketing Manager marked such behaviour (Appendix C-3, p. 69) when the electricity generator stopped for two days and hence the production decreased and could not be compensated till two months after. He argued that if production department had alternative plans to handle situations like this, they could have responded more quickly and more efficiently to it.

While the examples above represent negative impacts of divisions' interdependence on performance, examples from Steel provided a positive impact. As The Operations Manager in Steel highlights (Appendix C-3, p. 70) the company's policy was to shift engineers between the different sites and jobs to trigger their abilities and to exchange experience. Under that routine, an engineer had to exchange his expertise with his successor.

TQM and non financial measures

The data of Steel (chapter7, p. 194) showed that Total Quality program was a genuine feature of the company. This feature along with the emphasised use of non-financial measures, seeking creative proposals from all levels and teamwork pattern were consistent with the results of Ittner and Larker (1995). Ittner and Larker (1995) reported that, "*with more TQM, greater emphasis was placed on team work and non-financial performance measures, more frequent provision of quality information to all levels and greater use of "bottom up" data gathering. Besides, with more TQM, external benchmarking on products, processes and services is more frequent and strategic information is broadly more frequent*". The benchmarking practice was reported by Steel (chapter 6, p. 158) as well, where the company was compared to international steel producers for total production and some processes and items of costs.

The choice of strategy and the choice of performance measures

Regarding the type of strategy which each of the four companies was adopting, it could be identified that Trade -because of the current financial losses and overdrawn- had what Govanderajan and Gupta (1985) called "harvest" strategy. That is, it concentrated on maximising cash flow in the short term and exclusively used financial measures only to measure performance. In contrast, because of the stable and strong position and expansion policies of United Utilities as well as Dairy and Steel, they could have been applying a build strategy (i.e. increase market share). Examples on that were in the Marketing Manager's statement about the expansion and growth of Dairy which is built on providing better quality, services and less prices (chapter 6, p.149), also the new projects of Steel to increase exporting (Appendix C-1, p.33). This was accompanied by a combination of financial and non-financial measures for performance. Sometime, these companies put even more emphasis on non-financial measures, like in Dairy where the marketing manager saw creativity as the way to outperform competitors and achieve the growth policy. In Steel, quality was an essential element to support the company in the exporting contracts to the international arena.

These practices were consistent with Govindarajan and Gupta (1985). Their proposition was that business unit strategy might affect the choice of accounting measures in performance evaluation. The evidence of their study suggested that following a build strategy (i.e. increase market share) -as in United Utilities, Dairy and Steel- required improvements in long term performance; then accounting measures which were short-term oriented, would be inappropriate. Alternately, measures for new product development, sales growth or personal development would be more effective. In contrast, under a harvest strategy (i.e. maximise cash flow) -as in Trade- reliance on accounting measures (such as cost control, profit margins and cash flow) would be more effective.

Low pay in the public sector and the decline in performance

As presented in table (7-8) (in chapter 7, p. 192), in the three Egyptian companies, the lowest pay level existed in the public sector (Trade). This -with other issues- raised the disappointment of the employees there, as the Head of Follow-up Division reported (chapter 7, p. 193): *"we work under pressure, one might do the work of two, with poor facilities and much lower pay than colleagues in other companies"*. The same comment was given by other respondents in Trade and was added to the reasons behind the poor performance. This observation was consistent with Chow (1983). Chow (1983) used the term "pay fairness" to describe employees' perception of pay schemes. He argues that if employees are not rewarded "fairly" and can not do anything to change that, their performance will decline.

The effect of how employees saw themselves and their company on their performance

There was quite difference in the way in which the participants from the three companies saw themselves and their companies and on their relationship to the company. As reported in chapter 7(p. 186, 187) and in chapter 8 (p. 206), the participants of Steel felt proud to belong to a successful company which was the number one steel producer in the Middle East and they talked about the company as "*we are*". They linked that to their commitment to the company by working flexible hours as much as the work needed. In Dairy, the good salary and supportive work environment promoted creativity and support to company's goals as the Marketing manager reported (chapter 6, p. 149). In Trade, frustration and disappointment with the current financial problems which resulted from outsider decisions, coloured the participants' views about the company and led them to deny responsibility for the results. However, in United Utilities, some tensions was shown in the respondents comments (chapter 8, p. 219) related mainly to the bigger pay to top management regardless the actual performance of the company.

These different patterns were consistent with Merchant and Manzoni (1989) who argue that managers who feel good about themselves and their organisations seem to be more likely to be highly energised and willing to take prudent risks.

Targets of the best performers

Dairy company was one of three companies which dominated the dairy products market in Egypt, Steel was the biggest local and regional steel producer in the Middle East whereas United Utilities was one of the FTSE 100 in UK. A common feature among the three was that they had growth and expansion strategies into national, regional and international domains. Dairy aimed to increase its market share (chapter 6, p. 148) by outperforming competitors by producing the same product with lower price, better quality and services. Steel had on going projects to increase the amount and type of products (Appendix C-1, page 33) and through increasing the ratio of utilised capacity. Therefore, Steel company monitored its processes and costs against international producers. United Utilities was looking to enhance its market share in the UK market and in the international operations.

These patterns were consistent with Allan (1995) who predicted that the best performers could always have their own challenge. These could be new and motivating challenges such as, creativity, controlling costs more and innovation or more generally "competing with themselves" to maintain setting on the top and make it difficult for anyone else to beat them.

The link between stock options and performance

The Group Remuneration and Pensions Director of United Utilities had reservations about the company's share options scheme (chapter 8, p. 217). He noted that "*share options allowed individual directors to get shares and make loads of money without a link to how those managers were handling the company's performance*". Therefore, the company -like others- moved to a mixture of long-term incentives and share options plans. This point contradicts with Merchant and Manzoni (1989). They argued that any of the reward forms could be linked with any performance measure or combination of measures that can be used to distinguish good from mediocre or poor performance. The contradiction is that, share options plan in United Utilities –according to the Group Remuneration and Pensions Director- did not distinguish poor performance from poor performance. Moreover, it allowed managers to collect money regardless of the company's performance.

Gaps in Pay

A feature which was stressed by the participants in Trade and United Utilities, was the gap in pay between top management and other managerial levels in the company and gaps in pay compared to employees in other companies (in Trade only). Kaplan and Atkinson (1998- page 682) mentioned such disappointment as they argued that individuals must believe that the organisation's compensation policies were equitable. For example, rewarding senior executives with multimillion dollar bonuses while rewarding assembly- line workers with bonuses with a maximum potential of several hundred dollars will create an environment or culture in the organisation that only senior members are valued by the organisation.

(9.2) Part Two

RPE: its application, potential and experience

Applying RPE: facts and attitudes

Regarding RPE, the results of this research show average support for it as a motivational and monitoring technique in two of the four companies under investigation (chapter 6, p.144, 151,159 and chapter 7 p. 204). The companies' situation regarding using RPE or not and the participants' accepting it or not, are summarised in the following table:

Table (9-1) Summary of the companies' using RPE and employees' accepting it

		RPE Accepted	
		No	Yes
RPE Used	No	Trade (public)	Steel (Joint venture)
	Yes	United Utilities and Dairy (both private)	None

The table shows that RPE was used but not accepted by the participants from Dairy company but not applied and rejected by the participants of Trade company. However, the scheme was not implemented but welcomed by participants of Steel company (chapter 7, p.169) and used but not accepted by the representatives of United Utilities (chapter 8, p.204 and 222). The purpose of this section is to discuss why it was used, welcomed or rejected in each company. However, the first issue to be discussed is the potential of RPE.

Why RPE, Why not?

The 1999 annual report of United Utilities stated that the objectives of remuneration policy in the company were to align interests between shareholders to managers and keep in line with pay practices in the industry. The group remuneration manager in United Utilities added that RPE was used for top management to engage them in the competitive environment of the business. Competition that Dairy was exposed to has also been behind developing the RPE comparative performance reward scheme. In Steel, the internal divisions comparison was a strong practice, regular, used for all departments and divisions and welcomed by employees. This fact along with the lack of local steel counterparts and the incomparability of remuneration between Steel and international companies seemed to be the reasons for not applying RPE. Trade was heavily affected by governmental interference, low salary, high tendency to avoid responsibilities and risk which resulted in not applying RPE. Also in Trade, the personnel policies were organised by law that did not include performance comparisons internally or externally. The governance of law and the lack of empowerment of those who managed the public units -especially when related to pay- made it more difficult to negotiate the introducing of a scheme like RPE. It may be noted that the law for public sector employees lacks performance comparisons because it was developed during the central economy era in the 1960's in Egypt where socialist culture averted competition and outperforming others, specifically when money was involved. Under that culture outperforming was seen as taking more than colleagues therefore, achievement, ambition and initiatives were discouraged (El Kahal 1998).

Is it Motivating, Monitoring?

The results of the questionnaire and the interview enquiry - in both the Egyptian and the UK companies under investigation- revealed that employees would -generally- perceive RPE as a motivational technique rather than a monitoring technique. The agreement on the motivational ability of RPE was consistent with Fredrickson (1992) and the social comparison literature (Young 1985, Ferris & Mitchell 1987) about the importance and influences of " the others" on the individual's behaviour. The interviewees (chapter 6, p.161) justified this by denying the monitoring ability of RPE, as performance was a joint product of many inputs. Therefore a question about how "managerial effort" could be separated and monitored by RPE would arise. However, comparing performance to peers in other companies, was not the only version of RPE that has been perceived by participants in this research. In Trade, Dairy and Steel, the participants suggested that internal comparisons could be considered as a version of RPE especially for middle management (chapter 7, p. 177). In United Utilities, the group remuneration manager suggested that comparing performance to service standards as another version of RPE. The proposed reference groups (colleagues or service standards) were seen to play the same role as other performers in motivating, monitoring and filtering performance.

The data of Dairy, Steel and United Utilities seemed consistent with Emmanuel et.al. (1990) in that the motivational impact of performance- related rewards might be reduced according to the degree of risk involved. Moreover, the data showed the direction of the impact, in those companies as the risk had a positive effect on employees and motivated them to work harder. In Trade company, risk had an opposite impact where the participants' rewards based on RPE were too risky for them to accept, given that they already received low pay. This suggests that Emmanuel's argument could be moderated by the level of pay that the employee would receive (other than the reward in question).

..... by Which Mechanism?

Fredrickson (1992) operationalised the mechanism of social pressure in this way: by competing with other performers under RPE, individuals seek to gain money and esteem. The results of this research predicted that the power behind the motivational role of RPE was its ability to trigger the employees' desire to gain money but not esteem. This did not support the social comparison theory's expectations. This result might be interpreted thus; the participants aspired to gain money -generally- via work and they believed they could get it through RPE. Employees also inspired esteem but not through RPE but through other channels. For Dairy, the respondents of the questionnaire recorded their being proud to work for a successful company with a good place in the market. In Steel the participants reported being happy to work for company number "1" in producing steel in the Middle East and for serving the community by providing a product which used to be subject to crisis in supply. In United Utilities, it was part of the company's culture to build up esteem and competition values among employees. However, the degree to which the employees would continue to respond to an RPE package positively for money, as argued -in chapters three and four- was contingent on the content and context of using it.

The rationale for using RPE

In Dairy, RPE was introduced to engage the top management (hence the company) in competition in the dairy market in Egypt so as to support the company's long-term growth strategy. In United Utilities, RPE was introduced as a tool to align the interests of managers with those of shareholders [as Antle and Smith (1986) assumed RPE could do that]. While this "market embedded" orientation was from the standpoint of the "designers of the system" when they established it. However, the appraisees' actual attitude -as expressed by the participants in this research- provided a different view regarding market-based measures. The questionnaire data showed that United Utilities' respondents were against using market measures in RPE while Dairy respondents were neutral about it. This issue will be discussed latter within the "content" section of RPE.

RPE; market- based or accounting based

The Managing Director of Dairy company, justified the advantages of the accounting based measures as they represented the managers' performance and there were professional guidelines about how to calculate them from "The Egyptian Institute of Chartered Accountants and Auditors". Using these measures (by following the guidelines) made the performance of Dairy and its selected peer group meaningfully comparable. This practice of Dairy contradicts the argument by Baber et. al., (1996) that building rewards on accounting measures might imply some risk because management enjoys an element of discretion in choosing among financial reporting alternatives, and therefore, accounting numbers can be manipulated. Moreover, arbitrary accounting rules can distort accounting profits as meaningful indicators of economic returns. The data of Dairy showed that the existence of guidelines and verifying whether companies applied them or not -through the auditing process- helped to minimise arbitrary and individual choice between the accounting policies. The consistency of the accounting bases upon which performance in used, would be particularly important in the case of RPE because of the various rewards which are decided according to the performance comparison.

United Utilities measured the performance under RPE by **T**otal **S**hareholders' **R**eturn (TSR) which was a market-based measure which includes dividends to shareholders. This measure was consistent with the purposes of RPE package in United Utilities that included to "aligning interests between shareholders and top management". That is, the more the top management delivered to shareholders -compared to other companies- the more it would be rewarded.

How RPE was perceived: *an accountability mode or a responsibility mode*

Three points could be noted regarding what was perceived as "**Relative Performance Evaluation**". First: the perception differed between the appraisees and the appraisers. Second: the data predict that the term "Relative" should not be interpreted -exclusively- to mean "corresponding to peers in other companies" because all performance evaluations reflect relative performance and the difference lies in the basis of relativity. The basis can be the budget, plans, past, colleagues in other divisions, departments or performers in other firms. Matching performance to the budget and the past are used in the four companies, comparing to colleagues in other divisions is used in Dairy and Steel, task group in United Utilities whereas a comparison with peers in other companies is used in Dairy and United Utilities. Third, the noticeable difference in the perception of RPE between the appraisees and appraisers stemmed from how each party drew a distinction between "accountability" and "responsibility". "Responsibility accounting" defined as reporting the revenues and/or costs under the control of a specific unit manager [Kaplan 1994 (a)] and hence stresses the notion of controllability.

According to these definitions, accountability is wider than responsibility and includes it; also both are built on the idea of controllability. According to the orientation of this research which emphasises controllability and attainability, it could be concluded that RPE is a mode of accountability.

The data suggested that employees adopted the concept of "responsibility" for performance, with a fundamental emphasis on the "controllability" consideration, especially with RPE which included money. On that basis, the employees of Dairy and United Utilities refused to have RPE built on financial market measures and on the unattainable targets. The company's point of view in RPE was concerned with "accountability" rather than "controllability". For example, the managing director of Dairy company argued that:

> Top management has qualifications and experiences different from the other managerial levels. On the other hand, the market in Egypt in open, it is quite possible to know about your competitors who share the market, competition, and regulations. Hence, I believe it is the responsibility of the top management to handle these competitors and to be evaluated accordingly.

Under RPE schemes, Dairy and United Utilities held the employees "accountable for" competing with *top peers* in the industry or nation-wide, whereas the employees consider themselves "responsible only for" *what can be attained.*

What experience with RPE?

Since the establishment stage, Dairy considered its competitors' performance and match its progress against them. Therefore, introducing the RPE scheme two years ago was considered to be an extension of that. The Managing Director of Dairy reported that the package had been effective in monitoring performance relative to competitors and that sustained the company's plans of gradual growth.

The data from United Utilities showed that managers -including those who were rewarded under RPE- and the group remuneration manager had many reservations about the scheme as detailed in chapter five. For example, some respondents commented (chapter 8, page 219-220):

> "Pay- for - performance" schemes have de-motivated employees,
> "Senior management "take a bigger slice of the cake" whatever company performance is;
> "Senior management ensure they get their "snouts in the trough" whatever happens, middle management are rewarded for enforcement and act as soundproofing from what is expected by the junior staff.

The remuneration manager summarises his overall view about the long-term incentive scheme:

> It is not as effective in tying reward to performance as was expected.
> Performance measurements are the big problem.

(9.3) Part Three

The content of RPE

I: Peers

was it influential?

Under RPE in the four companies, the comparative base was influential regarding the response to the package (chapter 5, part 1, 2). Whether or not the peer group could affect RPE has not been addressed before in the literature of RPE. However, Antle and Smith (1986) found a relationship between industry (not market) performance and the performance of the employees and their rewards. In this research a question had been raised about how employees would perceive different peers (e.g. from the same company, same region, the same industry or the top 100 companies nation- wide) in terms of difficulty to compete with and the impact of this on RPE. The research result could not be compared to Antle and Smith (1986)'s because they used two measures for peers to investigate the impact of controllability which related to each type of measure. Antle and Smith (1986) did not aim to address or interpret the perception of different peers in terms of difficulty.

Did target difficulty affect RPE?

In the first instance, this research has contributed towards covering the gap recognised by Chow et.al. (1983) that there is a need to test the impact of job tightness and compensation on performance, on different managerial tasks and with non-financial motivation (e.g. social esteem).

The preferable peers by participants in the four companies seemed to reflect the implications of real practice, type of activity and level of aspiration. The definition of "target difficulty" which is used in this research is that Merchants and Manzoni (1989). They defined it by the gap between the actual and the planned level of performance as estimated by the respondents. Peers which were currently used and which the participants preferable are presented in the table below:

Table (9-2) Currently used and preferably used Peers

The company	Current comparison group	preferable comparison group and its difficulty
Trade	none	peers from same company (easy attainable)- same region (difficult but attainable)
Dairy	a group of dairy and food producers	peers from same industry (difficult but attainable) – the top 100 (equally difficult but attainable or extremely difficult and barely attainable) with total unattainable > total attainable
Steel	none	peers from the top 100 (difficult but attainable) - same industry (difficult but attainable)-
All Egypt data		peers from same company (easy attainable)- same industry (equally difficult but attainable or extremely difficult and barely attainable) with unattainability > attainability- same region (extremely difficult and barely attainable)
United Utilities	FTSE 100 + utilities within the FTSE	peers from same company (easy attainable)- same industry (equally difficult but attainable or extremely difficult and barely attainable) with total attainable > total unattainable

The pattern of the Egyptian data and that of United Utilities regarding the difficulty with different peers, showed a movement from what the respondent saw "attainable" to a "more difficult and more challenging" target level. This result was consistent with the debate in the accounting literature about target difficulty (Merchant and Manzoni 1989, Horngren 1987, Otley 1987) as discussed in the first chapter of this thesis. The data sustained the argument that the target should be difficult enough to challenge employees but should be attainable at the same time otherwise it would de-motivate them. This result might be interpreted using the line of reasoning of Tosi et. al. (1994) where they concluded that the monitoring level could enhance performance to a certain limit, after which, more monitoring would result in de-motivation. In this research the same reasoning seems applicable on the impact of the target's difficulty on motivation and hence on performance under RPE schemes.

Such an interpretation could be based on the mechanism of money and esteem by which, RPE was suggested (Fredrickson 1992) to motivate employees. In that respect, three phases could be reckoned. Phase (1): as the accounting literature and the data suggested, with a challenging and attainable target, performance would improve because employees would be willing, strive and likely to obtain money and esteem, here both money and esteem drives work in motivating employees. In phase (2) a more difficult but still attainable target, might defy employees' willingness and endeavour to improve performance and to gain money and esteem. In phase (3) a more difficult target might be seen as "unfair" and de-motivating. This might decrease performance and consequently their rewards of money and esteem. In the latter case -specifically with data predicting that employees would respond to RPE mainly to gain money- missing a target and hence rewards, could depress performance. At this stage it seems that only money works. This conclusion is consistent with Janakirman et. al., (1992) argument that the relationship between pay and relative performance is not linear.

The preferred peers

Dairy's response was consistent with the notion of moving from the attainable to the more challenging goals, so participants chose: the same industry then the top 100 and smaller approval was given to peers from the same region and the same company. The advanced position of preferring a peer group from the top 100 companies, was inconsistent with the research argument. This result could be interpreted by a high level of aspiration and accepting risk which were planted in the company's culture. On the industry level, Dairy was one of three dairy companies which dominated the local market. This probably justifies why peers from the same industry were the most favoured where the company was at the top. As the managing director mentioned, the management spread the information about the company's advanced position in the market and sought employees' support for improving it even more. This might make the employees enthusiastic and inspired to compete with the top 100 companies nation-wide. Ezzamel and Hart (1987) reviewed Stedry's research in the 1960's where the latter found that when targets are set on higher levels the result were either very good or very poor depending on aspiration. Therefore, Dairy results might be explained by both the high aspiration of employees coincident with the high salary level (as the marketing manager reports- chapter 6, p 150). However, this result was inconsistent with Merchant and Manzoni (1989) who found that US managers set highly achievable targets to increase the expected bonuses, protect their creditability and increase operating flexibility.

The Steel case was inconsistent with the research arguments and expectations because the more difficult target (top 100) was preferred first then the less difficult (same industry). This result might be explained by the circumstances of Steel. With regard to the steel industry in Egypt, the Steel Company was the biggest steel producer in the Middle East in terms of size of operations, turnover, profits such that, there was no local equivalent to it in these terms nor in terms of the modern technology it used. Nevertheless, some respondents commented that they preferred to be compared to the heavy machine producers or the best companies in the private sectors. However, the regression of peers on RPE was non-significant in Steel at confidence level 95%, so the peer item was not likely to influence an RPE package, should it be used by the Steel Company (Chapter 6, p. 159).

Why were performance measures financial only and not influential on RPE in Trade?
The performance measures were found to have an influence on RPE in Dairy, Steel and United Utilities (not Trade) where both financial and non-financial measures were used. Trade's participants preferred their performance to be measured in financial terms only. There could be some reasons for this result. Firstly, it was the actual practice in Trade under the "Unified Accounting System" where it was neither the intention nor within the power of the employees to change it. Secondly, respondents saw the financial measures relevant to the company's activity as a retailer which bought goods to sell without doing any further transmission (chapter 7, p185). Aspects like quality, creativity,...etc were seen more related to manufacturing activity. Al Bahimani's findings (1993) in his survey on the British manufacturers were in line with this perception. The participants in Al Bahimani (1993) reported that under new technologies, there was a need to measure new aspects of work such as effectiveness of delivery, meeting time schedules (e.g. under JIT systems), flexibility and response to the market. However, Al Bahimani did not address (and consequently did not deny) the importance of non-financial measures in service industry. On the other hand, financial measures and non-financial ones were not mutually exclusive in any activity, as the Production Controller in Steel company recorded (chapter 6, p 162).

Why performance measures were influential and non-financial preferred in the others:
In Dairy, Steel and United Utilities, performance measures were seen as influential and the non-financial measures within RPE system received overwhelming support. It is worth mentioning here that, an argument about widening the scope of measurements under RPE has not been introduced before in the debate about RPE. However, non-financial measures have frequently been discussed in debates about performance measures in the accounting literature.

In this sense, the data of Dairy, Steel and United Utilities were consistent with the accounting literature which pointed out many defects in the financial measures. For example, they were considered irrelevant, obsolete, too late, too aggregated, unrelated to strategic objectives (Tatikonda et. al. 1998, Ezzamel and Hart 1986, Kapalan 1984, Emmanuel et.al. 1990, Al Bahimani 1993, 1994) and led Kaplan and Norton (1992) to introduce the "Balanced Score Cards". Also, the results agreed with Scott and Tiessen (1999) in that performance was positively associated with the variety and comprehensiveness of measures. Furthermore, the result was consistent with Al Bahimani's survey (1993, 1994) on the manufacturing companies in the UK, where the non-financial measures were considered more relevant when competition and technological developments existed.

It could also be argued that the non-financial indicators might be able to measure "the process of performing" (i.e. how is it in terms of quality, meeting time schedule, reflecting the consequences of a decision within its span of time). On the other hand, financial indicators tend to measure "the results of performing". This interpretation agrees with Kren and Munter (1995) where they argue that compensation system should be designed such that quality of decision-making forms the basis of performance evaluation.

Why market measures were rejected under RPE:

The frequencies of preferring market measures in the questionnaire and the interviewees' observations revealed a substantial agreement by the participants from the four companies against using market- based measures to measure and assess performance because of lack of the controllability and representativeness of these measures. This indication becomes stronger with RPE when basing rewards on performance comparisons. This was found to be the case even in United Utilities which applies RPE in the long-term incentive plan and uses market measures to indicate performance. The participants in the enquiry from United Utilities reported dissatisfaction with market measures.

The same result has been recognised by Merchant, Chow and Wu (1995) where Taiwanese managers believed that the stock market was not greatly concerned with the financial reports of the companies; and dealing in stock was decided not upon companies' profitability but on other issues like companies' assets. Therefore, Merchant, Chow and Wu (1995) reported that Taiwanese managers tended not to use stock-market based rewards.

II: The rewards

The research results showed inconsistent indications about the preferred form of reward under RPE. First, there was no evidence that diversifying the form of the reward under RPE would encourage the employees to respond to the package because it would satisfy different needs for different employees as Vancil (1979) anticipated and as Merchant and Riccaboni (1990) found in Fiat company. Ezzamel and Willmott (1998) found in the cases of six companies that they investigated that the lack of promotion opportunities - for shop floor workers- was perceived as a problem in motivation. Therefore, efforts were made to broaden the remuneration package by augmenting the financial rewards with non- financial 'incentives' e.g. empowerment, job rotations, broadening job boundaries, better health and safety, training, etc. Ezzamel and Willmott (1998) commented that, to the extent that these schemes were deemed to be effective, their success was arguably attributable to labour market conditions as to using non-financial incentives.

The first observation about the results is the dominance of the preference for cash rewards in the four companies. The differences appeared from the second preference form onwards as the following table respectively shows:

Table (9-3) The order of preferable rewards in each company

The company	The order of preferable rewards
Trade	cash- work conditions - shares
Dairy	cash -shares- post retirement benefits and work conditions
Steel	cash -shares- holidays
United Utilities	cash -shares- post retirement benefits and medical coverage

The high salary and tendency to accept risk might explain the advanced rank of shares in Dairy, Steel and United Utilities. On the contrary, low salaries, the sectional culture and the individuals' risk aversion along with poor working conditions could be behind the order of preference in Trade. The appearance of holidays in Steel, was a reflection of the current practice. United Utilities' pattern seemed closer to Dairy's than to any other company under investigation. However, companies like Dairy -and more especially Steel- provided different types of pay among which was what Vancil (1979) classified as: power, opportunities to provide new ideas and to obtain the management's approval to apply it.

RPE reward in shares and taxes

The data of United Utilities (chapter 8, p. 217) revealed that managers were allowed to collect part of the short-term incentive plan and the long-term plan (the RPE version which the company applied) in shares for tax purposes. This practice was consistent with the argument of Kaplan and Atkinson (1998) about rewards in shares and taxes. While they debated that no single bonus incentive plan dominates all other plans for all companies, many plans target to reduce taxes for the company and for the managers such as the stock options.

(9.4) Part Four

The context and relevance of RPE

How has the contingency framework enhanced this research?

One of the potential merits of this research was to study RPE within a contingency framework. The questionnaire (97 usable in total) and interviews (16) showed that contingency was effective in framing a "content" and a "context" for RPE. The statistics showed different approval for the various arguments in the different companies (Trade, Dairy, Steel, United Utilities), sectors (private, public) and environments (Egypt, England). The design of the case studies aimed to explore these differences. This design, not only provided answers to the research questions, but also identified other influential variables. Among these variables were: the ownership type, organisational facilities, management practices e.g. encouraging creativity, type of leadership, ...culture, level of pay, employees perception of the control system, implications of market and national culture. This section will examine these variables which the contingency framework revealed.

Ownership: Public sector vs. private sector

The first issue that the contingency framework revealed was the differences between the public and private sector patterns of control. As the previous chapter showed, the environment of the public sector in Egypt did not seem consistent with RPE for many reasons (as mentioned in the previous chapters e.g., lack of motivating employees or feeding competition between them, poor facilitates, low salaries, and constraining red tape). Furthermore, the objectives from maintaining state-owned companies did not appear to be consistent with the idea/ notion of RPE. The researcher would argue that the lack of consistency between the public sector's environment and RPE requirements stemmed from lack of awareness of and aiming to motivate employees in the public sector and the poor facilities available to achieve any goal (even the budget). It was not necessarily running public companies for social, political and economic purposes rather than profit which led to leaving RPE, because not-for-profit organisations such as charities might require their employees to compete with other charities in serving clients/or achieving their goals. Rather, it was the centrally planned economy's culture which disregarded motivating and feeding ambition which ultimately resulted in an attitude to avoid risk (the belief is: there is always a governmental procedure to follow, El Kahal 1998).

However, governmental interference would still distort RPE if the parent company -for example- drove the public company to compete with other companies (whatever they were) on a specific target (profit, revenue, amount of sales,...etc) and in the meantime imposed specific sources of supply, procedures for doing the work, the employment policy on the company. Such "imposed alternatives" might not be the relevant choices to achieve the target. This case of Trade was consistent with what Ezzamel and Hart (1987, p 351) report that, in situations of task interdependence, whether of a facilitative or hindering nature, uncontrollability over performance is positively correlated with work-related tension.

Enis (1993) did not find evidence on whether and how ownership amends the outcome-compensation relationship within agency theory. He reviewed Arya's results (1991) the less risk- neutral the principal is, the more likely risk to be shared with agents through outcome- compensation plans. However, Enis (1993) predicts that managers of closely-held firms encounter greater monitoring than managers of publicly traded firms and bonus plans would be used for tax reduction rather than motivating.

In United Utilities, the ownership has a different implication, all the objectives of the design of remuneration packages were to align the interests of managers to the interests of shareholders and to stay in line with pay practices in the industry/ market as stated in the annual reports 1998. With RPE -particularly- the group remuneration manager mentioned that major institutional shareholders suggested that two peer groups (the FTSE 100 without the utilities companies and the utilities companies within the FTSE 100) should be used to provide more meaningful comparison and to be competitive in the utilities industry. In Steel, TQM, job for life, tying the employees to the company are obvious applications of the Japanese management style (Chen 1995).

Competition in the market and adopting RPE

The research findings suggested that in Dairy and United Utilities, the competition helped in the companies' adopting RPE whereas in Steel, it led to a version of RPE based on internal comparison. This observation was consistent with Maher's (1987) where he found in a Conglomerate corporation in the USA that RPE was used to include competition and industry performance in the performance evaluation process. This observation was also consistent with the debate by DeFond and Park (1999), Dye (1992). Fumas (1992) argued that RPE's usefulness increases when the competition in the market increased because RPE would identify and replace the poor management [DeFond and Park (1999)]. RPE relates to strategic advantages (Fumas, 1992) and would encourage investment in risky decisions (Dye 1992).

RPE and the feedback about competition

Yong, Fisher and Lindquist (1993) concluded -from a laboratory investigation- that groups which received feedback (whether they are ahead or behind) other groups, tended to produce more, due to the social learning and motivation associated with the sign of feedback. Thus, the level of competition could be motivating for some work groups but not for others and organisations have to consider how competition might affect overall performance.

These research findings might be seen as an extension of Young's findings which stressed that exposing employees to competition through performance comparisons, could increase performance within limits. It is suggested that these limits are what have been debated in this research as "target's difficulty". Overall, this research's results in this point seem to be in line with Young et.al.'s (1993).

Importance of Location

The participants of Trade identified the importance of "the location" for sales centres. Some branches are easily accessible by customers, with an ample space for displaying, storing and serving the large machinery that the company deals in. These site implications are expected to be influential on the profitability of the branch. An example is given by a branch, situated near to the expanding "6th October Industrial City" outside Cairo where the branch is near to a variety of factories (the customers) and the main road between Cairo and Suez harbour (where imported machines might arrive). Participants consider that such branches are just lucky to be there. This observation is consistent with the study of Moon and Fitzgerald (1996) on the performance measurement in TNT delivery firm. Again, staff of TNT identified some branches near specific customers and on main roads luckier and more able to make profits than other branches which do not have the same privilege. In line with this point, Norweb electricity company before being taken over by United Utilities, used to apply RPE by comparing its managers to counterparts in the Regional Electricity Companies as a preferred benchmarking. The implication of this for RPE is: location is an important issue in selecting peers for retail companies.

Pay level

As explained in chapter seven (p. 192), the remuneration level was higher in the private sector in Egypt than in the public sector. Kantor and Richardson (1993) report that salaries in the private sector in Egypt tend to be double that of the public sector. This gap has resulted -so they argue- because of the government's job guarantee policy for all college graduates which has done little more than lead to an overstaffed public sector with low wages that reflects the supply and demand of public sector labour. Although the government has abandoned this commitment with the movement towards the free market in the 1980's, the contemporary divergence in pay was a result of the previous commitment. Unlike the situation in Egypt, White (1997) reported that pay was relatively consistent between the two sectors in the UK.

Two points emerge from the level of pay and RPE:

First: RPE reward is risky because it is based on competition with other performers and this is consistent with its mechanism as a motivational tool and equally suggests that individuals who would be motivated and rewarded by RPE should have achieved adequate satisfaction for their basic needs where a guaranteed base salary represented an uncertainty filter (Chow et. al 1994). This might explain why RPE was used for senior management only in the UK and in Egypt and why it was not used in the environment with low salary in Trade public company. Secondly, Merchant and Manzoni (1989) found that, the motivational power of reward-on performance depends on the percentage of pay that is at risk. This predicts that; if the entire remuneration (or most of it) is guaranteed, it will not have any motivational ability and if it is totally based on performance (such as in commissions in selling insurance policies), it might be too risky and hence de-motivating as well. Therefore, a balance should be kept between the two extremes. The remuneration package in United Utilities and Dairy -along with other UK companies- revealed that rewards based on RPE represented a small portion (8-12%) of the pay packages of the entitled individuals (Company Reporting publications 1994-1999). On the other hand as the Marketing Manager highlighted (chapter 6, p. 150) the salaries were in Dairy among the highest, this made any incentives had little to do with motivating employees. This was consistent with the argument of Merchant and Manzoni (1989) above because the amount of remuneration which is at risk –i.e. the reward- was too small compared to the secured pay (i.e. the salary).

Organisational Culture:

Bourn and Ezzamel (1986) conceptualise organisational culture in two ways: either as an independent external variable or dependent internal variable. As an external independent variable, it can be used to explain similarities and differences in the attitudes of managers of different countries. In this research, this is referred to as "national culture". As a dependent internal variable, it refers to the socio-cultural qualities which the organisations develop and which are shared by the members of each organisation. As discussed in chapter seven, two different organisational cultures could be identified in the Egyptian companies: "public sector's culture" and "private sector's culture".

A noticeable feature in the two sector's culture is the diverse effects of divisions' dependence on performance. In Steel, it has a positive reflection where co-operation is one of the job requirements and staff is accountable for it in the semi-annual review. In contrast, a negative impact was recorded in Trade. This was because it adopted a restricting red tape, a tendency to avoid risk and responsibility, hence there was a lack of understanding and co-operation between staff in the same department and in different departments. The importance of this factor is that it might affect the performance that would be compared to peers. However, RPE seems to lead to competition between performers "in other companies" and in order to do that effectively, corporate culture should emphasise co-operation between the colleagues and co-workers in the same company.

Corporate strategy and RPE

Data showed that performance comparisons -internally and externally- and the use of RPE were related to a growth or expansion strategy as was the case with Dairy, Steel and United Utilities. These companies paid more attention to market influences. A similar observation was made by Maher (1987).

Governmental Policies and National Implications in Egypt

The following issues relate to governmental policies and national features were recognised in Egyptian data:

- Expanding towards the desert: Establishing businesses in the new industrial zones (6 all over the country) is supported and encouraged by the government. Demirsar (1998) considers the development of free zones as a vital component of Egypt's effort to strengthen its private sector, attract foreign investment, create jobs and ease pressure on the Nile valley. Companies investing in a free zone receive a lifetime exemption from customs duties, sales, corporate and other taxes.
  The implications of this on businesses (such as Dairy, which operates in 6th October industrial zone,) are that they would perform more effectively and efficiently than the companies in the old/overcrowded locations, with better utilities, flow of transport and delivery and the new accommodation welcomed by employees.

- Moving towards a free market: The issuance of The Investment Law in 1983 aimed to attract private capital, joint ventures and the foreign investments into Egypt. This has happened within a wider movement from the centrally planned economy that has dominated since the 1960's to be replaced -gradually- by the free market since mid 1970's. This has opened up the business environment (such as in Dairy and Steel and even Trade) in Egypt to local and international competition and these streams have affected the companies and increased the need for working more effectively and creatively.

- Emerging active securities market: This has increased the individuals' awareness, attitude to investment in financial securities which in turn affect employees' accepting and preferring shares as a form of reward.

- Pilgrimage trips in the reward packages: It is a common practice by both public and private companies in Egypt which is welcomed by employees. The arrangements include securing a visa, booking hotels and preparing guidance. While it is not expected that an employee receives this type of reward often (annually for example), the practice itself is regular by companies.

Relevance of RPE

RPE for whom: (a) Which managerial level

The UK practice of RPE as revealed in the "Company Reporting Publications" -reviewed in chapter three and four of the thesis- along with United Utilities company and similarly Dairy company in Egypt, all use RPE to reward top management only. Maher's (1987) findings report RPE for top management in 2, and for division managers in 3 of the 5 corporations which he examined in the USA. The study has also reported that RPE was used for setting targets for the divisions and more surprisingly, Maher's observation that there was no difficulty in getting information about the performance of similar divisions in other companies. The latter point has been raised by many participants in this research as an obstacle in front of applying RPE on middle management or generally non-top level. Shih (1998) predicts that a corporate target would be achieved, if the individual targets for sub-units could be achieved.

(b) Which personal characteristics:

From the literature reviewed and the data collected, it can be predicted that RPE would motivate individuals who are on a high salary and risk-taking.

(9.5) RPE and National Culture

Firstly, note that the questionnaire and interviews of this research did not include an explicit and targeted investigation for the implications of national culture on controls generally or on RPE specifically. Instead, the statement which is made in this section, builts on the framework of Hofstede (1984, 1991) and the reported scores of Egypt and England with regard to the four dimensions of national culture which he studied. This was adopted along with the line of analysis of Chew, Kato and Shields (1994) who did a similar study for the cultural differences in controls and RPE between Japanese and American subjects. The researcher classified some of the interviews' data within Hofstede's framework (page 245).

Studying cultural issues explicitly was beyond the limits of this study for many reasons. Firstly, because debating the construct of culture was complicated and would need an in-depth case study to examine it properly. It was believed that gaining access for data to do such a study would not be possible. However, similarity and dissimilarity in practices of RPE and controls in Egypt and England were highlighted not from national cultural perspective but from a contextual perspective. This suggested the need for a following research which would include substantial examination of culture issues with regard to control. The second reason for not including cultural implications in the investigation, was because the literature of culture in social science was outside the researcher's academic background. Therefore, it was thought that getting a grasp of that literature enough to allow her to involve in that debate, would need time far beyond what was available to do this research. Thirdly culture implications to control were far more complicated than what was thought. One observation on that from that data is the culture in Steel company. Being a joint venture with Japanese partners, Steel was planting and encouraging many elements of the Japanese working culture such as more collectivism, more risk taking and more creativity compared to the other Egyptian companies in the study (chapter 8, p. 191 and 194). This example raises a question whether or not national culture is something changeable and in the one country, there could be many work cultures. This suggests that a next study should be done to examine these issues.

Chew, Kato and Shields (1994) found weak support for national culture impact on using/ preferring RPE in an examination between USA and Japanese subjects. Following their study, the dimensions of national culture [Hofstede (1984, 1991)] related to controls are summarised in table (9-4) below:

Table (9-4) Dimensions of national culture and controls

Control item	Operative national dimension	The relative country score (Hofsdte 1984)
Planning		
Participation	Power distance	Egypt > UK
Goal difficulty	Uncertainty avoidance	Egypt > UK
	Masculinity	Egypt > UK
Evaluation		
Controllability filters	Uncertainty avoidance	Egypt > UK
RPE	Uncertainty avoidance	Egypt > UK
	Individualism	UK > Egypt
	Masculinity *	Egypt >UK
Rewarding		
Team based rewards	Individualism	UK > Egypt
Pre-set pay	Individualism	UK > Egypt
	Uncertainty avoidance	Egypt > UK
	Masculinity	Egypt > UK

Source: Chew, Kato and Shields (1994) page 338.

* Added to Chow's analysis.

First, the researcher would argue that if national culture impacts controls and RPE, it is not the only variable which affects it at any given time. For example, uncertainty avoidance is not the only reason for accepting a specific level of goal difficulty as, the level of pay is another determinant.

As table (9-4) above shows there was generally more participation in planning by employees in the UK culture represented by United Utilities rather than in the Egyptian culture represented by Trade and Dairy companies (but not Steel). This seems to be a reflection of more power distance between managerial levels in the latter environment. The culture's tendency to be coloured by masculinity in the two countries seems to be the reasons for accepting challenging targets. However, the higher score for Egypt might interpret why participants - in Dairy and Steel- preferred to compete with top 100 companies which were assumed to be the most difficult targets. However, the higher tendency to avoid risk in Egypt than in England, could explain why the most preferable peer group to compete with in Trade was peers from the same region and same company. Also in Dairy, they used a group of food and dairy producers to compare to when they applied RPE. This was unlike United Utilities which chose the FTSE 100. Although risk avoidance was higher in the Egyptian culture than the UK according to Hofsetde (1984, 1991), Egyptian companies tended not to filter risk from performance measures by external comparisons but probably more by internal comparisons. RPE might be found more in the UK environment because of higher attitude to accept risk than in Egypt. Masculinity in the two countries allowed the use of performance- related rewards whereas individualism in the two countries leads to applying RPE to individuals not to work groups as the Japanese was reported to do (Chow et. al. 1994).

In terms of remuneration practices, there is no evidence that the difference in individualism between the two countries affected the unit to be rewarded (i.e. individuals). However, it could be argued that, although under RPE -in Dairy company and United Utilities- managers were rewarded individually, the bases for calculating each manager's reward was a "collective" measure because it was a "company performance" measure. In Steel company, some incentives which were based on division and group work, have been mentioned. It could be argued that the general economic conditions and standard of living in Egypt -not the culture dimensions- led to determining the biggest portion of remuneration as a base salary and not the changing reward.

These observations about national culture and reward systems are consistent with a similar- but wider- study by Schuler and Rogovsky (1998). The latter study found a relationship between compensation practices and the dimensions of national culture. Firstly, Schuler and Rogovsky (1998) concluded that countries with high levels of uncertainty avoidance may have to offer more certainty in compensation systems, e.g. seniority- based or skill- based systems. Secondly the use of individual incentive schemes were advisable for countries with higher levels of individualism. Thirdly, share options and stock- ownership plans may be better matched in countries with higher levels of individualism and lower levels of uncertainty avoidance and power distance. Fourthly, in countries with high masculinity, there was less use of flexible benefits, workplace child-care programmes.

(9.6) Part five

Comparison with the Literature of RPE

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This section provides a multi- level comparison between the research (arguments, tools and results) and first: the previous studies of RPE, second: the only case study in RPE (Maher 1987). Table (9-5) summaries the differences between the research questions, methods and results in the previous studies and this research.

Table (9-5) Comparison between this research and the previous literature of RPE

The study	Research Method	Basic Questions	Kind of support to RPE	Results of each study
1-Holmstrom 1982	Theoretical presentation	-Are the agents paid as to their performance compared to peers?	strong support	-optimal sharing rule depends on agent's action and his peers' -peers group filters risk from agent's performance.
2-Magee& Kunckel 1984	-Empirical using published data	-Holmstrom's -what aspects of the peer group could affect the comparison? -Are there differences between industries in practising the RPE?	inconsistent results	-In some firms there was a relation between rewarding and industry performance varying in nature and power.
3-Antle& Smith 1986	-Empirical using published data	-Holmstrom's -Who are the peers (industry or market) -How RPE is implemented	-inconsistent results	-Some relation between industry (not market) performance and employees' performance. -filtering risk.
4- Choudhury 1986	-Theoretical debate	-what are the impacts of controllability on management accounting generally and RPE particularly	qualified. result	Maintain controllability as a principle in responsibility accounting depends on the circumstances of the firm. -RPE imposes risk on risk averse managers. -RPE is a better indicator of effort if group cohesiveness is low
5-Maher 1987	-Case study	-Is and how RPE implemented -How organisation's characteristics affect RPE..	strong in some firms but not others	-in general, there is a support for the RPE but with differences in interfirm, intrafirm, measures, characteristics and uses.
6-Gibbons &Murphy 1990	-Empirical using published data	-Holmstrom's -What influence can peers have. -Does RPE affect agents' turnover	strong support	-executives are paid (in basic or total) as to their performance and that of their peers. -RPE filters risk. -RPE's costs benefits affect its u -RPE affects turnover of employees
7-Chow & Haddad 1991	-Experiment	-What is the influence of RPE on selecting projects and under different degrees of uncertainty.	qualified result	-If supported by other studies, RPE could encourage agents to invest in risky projects under high uncertainty
8-Fredrickson 1992	-Experiment	-Holmstrom's -What are the effects of the degree of uncertainty.	strong support	-effort increases under RPE as uncertainty increases -filtering risk

9-Dye 1992	-Empirical using published data	- What is the influence of RPE on selecting projects and on the principal's utility.	inconsistent results	-RPE could encourage agents to invest in projects where their relative performance is higher as to their information about investments, number of projects competitors and talents.
10- Lambert et.al 1993	-Empirical using data from a consultancy firm	what is the ability of tournament, managerial power and agency theories to explain the observed compensation data	New role for RPE in promotion	organisational incentives are likely charectristised by a combination of tournament & managerial power - RPE can be used to justify promotions
11- Conyon & Gregg 1994	-Empirical using published data	-Are executives paid on comparative performance - what is the importance of competition and take over on conditioning executives pay	-supported with some measures but not others	RPE is taken into account when determining pay with sales growth but not with shareholders return. - Reduced union presence & expansion through take over (not heading a subsidiary) increases executives' pay
12- Dopuch & Gupta 97	-Survey on costs in schools	-how to extend RPE to benchmark performance standards	strong support	The activities can be more economically achieved by implementing relative performance- based benchmarking
DeFond & Park (1999)	-Empirical using published data	• Whether RPE is useful in CEO dismissal decisions in more competitive industries.	strong support	• Frequency of CEO turnover is greater in highly competitive industries. •RPE-based accounting management (compare to firm specific) accounting management are more closely associated to CEO turnover in high competition industries.
This research	-case studies in 4 companies	Contingency enquiry: How would employees respond to RPE under different peers, performance measures and forms of reward -which context relevant for RPE	mixed results	-employees would increase their performance under RPE if peers are challenging but attainable, performance is measured financially and non financially but no impact of varying rewards. -RPE would be used in a competitive environment, supportive management, expansion strategy + for employees on high salary and risk taking

The comparison could be traced following five different threads: the research arguments, framework, design, empirics and findings. These threads are presented respectively in this section.

In terms of research arguments

As detailed in chapters two and three of this thesis, the previous research in RPE depended on different measures for performance, different peer groups and different packages of rewards and those studies got mixed and contradictory results. Nevertheless, that literature accepted -unquestioningly- the assumption that RPE would motivate employees. Also no question was raised as to whether or not the performance measures, peers or rewards could have a role in getting those mixed results. An attempt has been made in this research to fill this gap. In order to find out the main themes to investigate, RPE was considered for analysis as a control system (chapter one, section three). This provided an opportunity to study the potential of RPE (the motivational ability), the content (peers, measures and rewards) and the context (individual and organisational) of RPE.

This line of enquiry helps to obtain a better understanding of RPE by raising new arguments around it and analysing it within a complementary perspective (which looks at RPE as a control system) to articulate the arguments. Also by linking the whole debate to the wider and continuous debate about performance, in the accounting literature.

In terms of framework

The previous literature of RPE was framed within the principal- agent framework and the set of assumptions about each of them (e.g. being rational, self- interest, driven by economic utility only,...etc) and the assumptions about the relationship between the two parties (e.g information asymmetry, goal conflict,...). In chapter three of this thesis, some contradictions between these assumptions and those of RPE were identified. This raised a doubt as to the suitability of agency theory as a framework of analysing RPE. The influence which this adoption held is that, under agency theory, RPE was assumed -implicitly- to be a tool for aligning the interests of agents to principals. This assumption has not been tested by collecting data or watching behaviour to examine whether individuals -under RPE- are rational, self interested, seek economic utility only and whether RPE could align the conflict of objectives between managers and owners. However, as discussed in chapter four, agency theory ignores the impact of environment on organisations and issues like competition, strategy and employees' judgement and response to performance measures and targets. When these arguments are raised in the debate, the agency framework would be narrow. Alternatively, contingency theory - along with the desire to relate the debate about RPE to the wider domain of performance measurements- opened up arguments about the employees' behaviour and response to RPE and RPE as a control system.

In terms of research design

As table (7-3) shows, the previous studies in RPE depended mainly on testing the published data of performance and rewards (with two exceptions, two studies of experiments and one case study). The Academy of Management stated in the call for paper for its conference about Pay and Firm Performance in 1996, that using published data (solely American) has limited the scope of analysis where not many variables have been examined. The data from that source are aggregated, archival, collected and classified to serve many purposes. Furthermore, that source would not allow an exploration of employees' attitudes, nor would it help in detecting the "other variables" that could influence the phenomenon.

Also, the previous literature used data of different companies and industries together and this did not highlight the/ impacts of the companies and individuals involved. Therefore, the research design of this study depended on case study approach with an in-depth investigation into the company, individual, sector and market implications on the debate about RPE.

In terms of empirics

The evidence presented in the previous research of RPE (except for the case study of Maher), was confined to measurements and observations of a limited number of variables (either when the work depended on data collected from databases or on experiments). Other variables were ignored or neutralised because of the restricted sources of data.
In this research, the case studies were built upon data from different sources (companies' reports and internal documents, interviews and questionnaire material). The comments on the questionnaire and the interviews -specifically- have provided more than mere

answers to the research questions. These two particular sources draw attention to variables of influence on the debate, other than what had been initially examined.
The various sources helped to construct an account of each company's policy regarding the control system and the performance management and another account of its experience with those systems. The data also provided an account of the individuals' attitudes towards RPE and the performance systems.

The scope of analysis -unlike the previous research which handled the data as one set and used only correlation and regression- included multi levels of analyses. This included analysing the data of each company. The Egyptian data was grouped in two sectors (public and private) for individual presentation and a comparison, and all this data was compared to English data. Furthermore, the Egyptian data together and English data each was discriminated by attitude towards RPE (i.e. those who agreed on, did not agree on and those who had a neutral towards RPE) and differences were explored.
In addition to differentiating the level of analysis, different statistical tools were used including: frequencies, correlation, regression, ANOVA and T test.

In terms of findings

In this research, some arguments have been shared with the previous studies of RPE, nonetheless, different results, interpretations and explanations have been reached. First, the evidence in this research suggests that RPE is the least desirable and used evaluation technique. Nevertheless, the idea behind using RPE was not to share risk between managers and owners as Holmstrom (1982) proposed, but to motivate employees as Fredrickson (1992) suggested. Secondly, some relationship between RPE and peers from the same industry was found in Dairy and United Utilities companies as Antle and Smith (1986) discovered, however, there is evidence that RPE was correlated to using securities market measures. The latter relationship was rejected in Antle and Smith (1986) study because of uncontrollability. Choudhury (1986) was also involved in the debate about RPE and controllability and concluded -in his theoretical discussion- that maintaining controllability depended on the company's circumstances. The findings of this research are consistent with Choudhury's; for example, in Trade public company, controllability was dismissed so that the state could achieve goals other than economic ones (e.g. political, social,...etc). Being privately owned, Dairy, Steel and United

Utilities did not face the same situation as Trade where the state interfered in the company's decision about targets,...etc. However, while Dairy, Steel and United Utilities maintained their control over their decisions -relatively- their respondents reported lack of control over movements of share price and market- based measures generally. Thus, this research suggests that controllability is an influential issue on the employees' acceptance and response to RPE. Moreover, the findings agree with Choudhury's that RPE increases risk especially risk of income as participant interpreted it.

Gibbons and Murphy (1990) mentioned the argument about peer influence on RPE, but did not articulate nor discuss it clearly. In this research, the evidence suggests that the choice of the peer group could affect the employees' response to RPE according to how they would perceive their peers in terms of difficulty in competing with them. If employees perceive the peer group as a challenging target, this could motivate them as long as it is also attainable. Thirdly, the evidence suggests that the drive behind employees' accepting RPE is to gain money only, not money and esteem as Fredrickson (1992) predicted.

(9.7) Comparison with Maher's case study in RPE

Table (9-6) provides a comparison between this research and the only case study in the literature of RPE, that undertaken by Maher (1987):

Table (9-6) A Comparison between this research and the case study of Maher (1987)

Aspect of comparison	Maher's case study (1987)	This research
Perspective	agency	contingency
Sources of arguments	Unanswered questioned by Antle and Smith (1986)	-Gaps in the literature of RPE -Relate RPE to the wider accounting literature of performance -Complications in UK practice of RPE not addressed before
Assumptions	The use of RPE can increase the efficiency of contracting between principals and agents (where there is information asymmetry between them). This occurs by taking into account the performance of the peers who share the same risk with the agents	RPE could motivate employees to improve performance if they perceive the peer group as a challenging but attainable target, if performance is measured financially and non financially and if different types of rewards are used.
Mode of study	Exploratory case study with broad questions	Exploratory case study with specific questions
Questions	How firms implement RPE? What circumstances give rise to the use of RPE for divisional managers?	Is RPE motivating? How the choice of peers, measures and rewards affect the response to RPE?
Tools of collecting data	Data collected by interviews and companies reports	Questionnaire, interviews and companies records and reports
Empirics	Five large companies in USA belong to different industries (e.g. restaurants, heavy machine, airspace, tires,...) were investigated	Three companies in Egypt with different size, ownership nature and activities and a multi utilities group belonged to the FTSE 100 in England have been investigated
Results	-RPE used to evaluate division managers in less diverse and less centralised companies. -RPE was used for setting plans	-The responses to RPE depended on selecting attainable targets, using financial (accounting not market) and non financial measures. -RPE used in the UK company and one of the three Egyptian companies for top management only due to capital market influences -Ownership, competition and level of pay affect the use of RPE

The purpose of Maher's research was to investigate whether and how companies use RPE to appraise divisional performance. The main questions of the study were: how the comparison group is determined, what characteristics of firms and contracts give rise to RPE in some cases and not in others, can RPE be used with various managerial divisions or is it limited to the top management. Maher used a case study method of five firms relatively large, publicly traded with manufacturing type of activities. Maher's findings are generally consistent with his expectations that division managers of diverse, decentralised companies are evaluated relative to industry peers because of information asymmetry between them and their top management. The unexpected results which he detected were using RPE for setting divisional targets and using it in a very diverse company but that was due to strategic purposes other than to filter risk.

Unlike Maher's findings, in this research, RPE was used to evaluate and reward -exclusively- the performance of top management. The idea was to engage them in the market rather than to motivate them, monitor their effort or filter risk from the performance measures. The diversity element has not been investigated nor recognised in this research although United Utilities is a group of four companies which work in a variety of activities (all utilities) and local and international markets. Similar to Maher's findings, division comparisons -and whole company comparison in Steel- were used in the Egyptian companies especially in the private sector.

Summary

This chapter discussed the arguments raised about RPE within a contingent perspective rather than the universal agency perspective which dominated the previous research. RPE was used in some companies but not welcomed (as in Dairy and United Utilities), not used but welcomed (in Steel) and not used and rejected in others (Trade). RPE was applied and welcomed in Dairy company as a vehicle to handle competition whereas in Steel company (which is a joint venture) it was not applied but welcomed for learning purposes and a route to promotion. United Utilities used it to align interest between managers and shareholders. In Trade, (public sector) it was not used and rejected because of governmental interference, lack of facilities, poor salary, restricting red- tape and tendency to avoid responsibility and risk. Dairy and Steel and United Utilities were exposed to competition, provided high salaries, facilities and supportive leadership. These variables appeared to be behind the support for RPE. The findings suggest that three of the four research arguments have been supported: target difficulty, including non-financial measures, non use of market measures (because of issues of lack of control) but no support could be recognised for diversifying rewards.

The findings of this research were consistent with the wider accounting literature about the impact of target difficulty, including financial and non-financial measures but not varying the form of rewards. The research findings were also not consistent with Fredrickson's (1992) that employees would respond to RPE to gain both money and esteem. The results also disagree with Maher's (1987) that RPE -as defined in this research- was welcomed by middle management or below. Chapter ten summaries the key findings, outline the research's contribution, limitations and future work.

Chapter Ten

Conclusions, Limitations and Future work

(10.1) Summary

This study was an investigation of the performance measurements' debate within contingency theory using a case study method. In particular, this research questioned how managers perceive and respond to performance systems and what variables might affect that response. In part I (chapter 4), five arguments were developed in relation to the design of RPE and the consequent motivation and these arguments were the bases for exploring performance practices, outcomes and how they were related. The discussion in part I, focused mainly on identifying the theoretical framework using insight gained from three themes: performance measures and evaluation, rewards and motivation. That discussion led to moving the debate from an agency theory perspective to a contingency theory one. This shift allowed not only to examine further arguments in the debate about RPE -beyond those introduced in agency theory- but also permitted to explore the characteristics of the individuals and the organisations which might apply RPE successfully. Furthermore, The investigation within contingency framework introduced variables (such as ownership nature, level of pay, influence of stock market and organisational culture) which could affect the potential of RPE. The case studies from the four companies showed the importance of these variables in RPE's performing its proposed role in motivation.

The study was focused (part I, chapter 5) on a series of critical analyses of the literature (part I, chapter 3) and reports about practice (part I, chapter 4). Different issues about remunerating practices were reviewed in professional reports [e.g. The Greenbury Effects (1995), After Greenbury: Developments in Company Policy and Practice (1996) and After Greenbury: Incentive Schemes (1996)] issued by the consultancy firm Coopers and Lybrand. This source made it possible to choose and to focus the arguments because it highlighted that in reality, there have been issues of concern to practitioners but were overlooked in the literature.

The fieldwork was carried out after centring the arguments in order to investigate the performance measures' practices and employees' attitudes towards them. Complementary tools for collecting data were in this research including a questionnaire, interviews and internal documents and internet material. The interviews focused on examining the current performance measures, evaluation and reward practices, the rationale behind them, the importance of each one relative to the other, how they related to the company's position and strategy. In parallel, the enquiry was extended by a questionnaire to examine further questions and propositions concentrated particularly around relative performance evaluation "RPE" (chapter 6). This strategy was chosen in order to gain a wider view of how RPE -as one of the evaluation and reward techniques- may fit into the wider domain of performance measures and with the other components of that system. Moreover, moving from the general to the specific; was thought to help in understanding and explaining specific issues with RPE. The research was designed on an exploratory case study basis to explore RPE practices and managers' attitudes to it in Egypt and England (chapter 4). Twenty companies were identified and approached in the UK but access was offered in only one company. In Egypt, there was no information about which companies applied rewards on performance comparisons, therefore, the research objective were broadened to include, exploring the performance management practice system, whether or not RPE is applied and why/ how, for whom, in what circumstances and what factors affect it.

Three companies were approached in Egypt but access was successful with only three. The data were planned to be collected by using interviews, questionnaires and documents. The basic idea of the integration of the two instruments was that the limitations/deficiencies of one method would be compensated for by the complementary of the others. For example, a questionnaire could be efficient in generating large amounts of data for statistical analysis, the major limitations for it might be that it might lack depth or interactive dialogue which would produce in-an-depth view about the argument. It was thought that the latter target was thought to be fulfilled by a face-to-face interview. The complementary tools were consistent with the case study approach which allowed the researcher to deal with a variety of evidence (Ch.4)

(10.2) Contingency framework of the research

The literature suggests that the contingency framework is particularly useful when exploring the context of a phenomenon of interest (Otley 1980, Hartely 1994, Scapens 1986). In this research, data tools such as the questionnaire, included questions about "other variables that should be considered when RPE is sought"; the interviews provided details which explained the reasons behind what the questionnaire responses suggest.

The contingency framework broadened the scope of enquiry and introduced further variables and arguments into the debate about RPE. The case studies material provided evidence on the importance of these arguments (Part II, chapters 6,7 and 8) in enhancing the potential of RPE. However, the study did not measure the outcome of using RPE taking into account the new variables, basically because it was not one of the objectives of this research and probably because it was not measurable as well. It is argued that this research developed a contingent outline of RPE. The enquiry provided a framework for "what RPE can do", "for whom" and "in which environment" as discussed in chapter 9. It revealed that in order that RPE might motivate employees to work harder, employees should perceive the peer group as being a challenging but attainable target, their performance be measured in both financial and non-financial basis and the financial part be in accounting rather than market measures. Furthermore, the field work suggested that RPE would be relevant for an environment with involvement in competition, stock market, allowing individuals' to take responsibility and providing high salaries. RPE as based on comparisons with peers in other companies might be applicable to top management only. However, comparisons with colleagues in the same company and service standards could be another version of RPE suitable for other managerial levels.

Given that the essence of RPE was a "benchmarking" process, it could be argued that the research provided guidelines for this process. The research suggested that fairness/ attainability of target, controllability and representativeness of performance measures, security of basic pay and support of management were essential features for an acceptable and motivating benchmarking.

(10.3) The key Findings and the research contribution

From the empirical evidence in the case studies (Chapter 6 and 7), it appeared that RPE was more complicated than what the literature addressed; especially when the universal view of analysis was adopted. Complications emerged when the investigation extended inside the company.

In this research, it was found on the facts' side that; RPE was the least used and preferred evaluation and reward technique in the four companies under investigation. RPE was applied in Dairy company in Egypt and in United Utilities in the UK only. In these two companies, RPE -based on financial model- was used to reward top management only. However in the four companies, comparing performance to the budget was the first and most common evaluation criterion and the sole basis in Trade. In Dairy and Steel, a comparison of divisions' performance -internally- was a regular part of the control system.

On the attitudes' side, different directions could be identified as follows: (a) RPE was acceptable to top management in the companies which were exposed to capital market influences. (b) The technique did not align interests between managers and owners. Although United Utilities explicitly and Dairy implicitly stated that they use RPE for that purpose, managers -in the two companies- did not give their agreement or consent to RPE. Instead, many reservations were recorded as shown in chapters 6, 7 and 8. Managers seemed merely to comply with the package. (c) RPE was perceived to be irrelevant to the companies with financial difficulties and lack of autonomy such as Trade company. (d) The relationship between motivation and performance was influenced by other variables (e.g. the employees' perception of target difficulty and attitude towards risk, performance measures, rewards, competition and ownership). (e) National culture did not affect employees accepting RPE or how companies implement RPE. Instead, influences of capital market and competition were similar in the two different cultures (England and Egypt).

Secondly: In RPE, performance measures were a crucial element for the performance evaluation process especially for the manufacturing companies (Dairy, Steel and United Utilities) whereas controllability was the vital issue for Trade because currently participants from Trade showed dissatisfaction with governmental interference in targets, policies and procedures. As Al Bahimani (1993) concluded -from his survey on British manufacturing companies- that there were many defects associated with the financial measurement which were seen to be less relevant for a hi-tech environment. There was a need for indicators which could measure new aspects of performance such as: meeting-time schedule, quality and response to market.

The participants of the manufacturing firms (Dairy and Steel) placed great importance on the performance measurements' attributes such as comprehensiveness and time- relation. This might not be a reflection of the type of activity (manufacturing rather than services) but could be an impact of the competition and market to which the companies were exposed.

Thirdly: there was no evidence that varying the rewards (to be in cash-shares-holiday) would have improved the response to RPE with limited variation, cash virtually dominating the preferences.

Fourth: There were other variables in the practices of performance management and RPE which had been overlooked in the literature of RPE. Among these variables are the impacts of competition, the exposure to the market, the type of ownership and culture. United Utilities and Dairy applied RPE as a result of facing competition and market influences. Consequently the two companies were concerned to monitor themselves against competitors and held top management responsible for managing this competition and being rewarded accordingly. Steel was exposed to competition in the international market of steel products. This international domain plus lack of a local equivalent made it difficult for Steel to apply RPE as a rewarding technique to its employees because of the difficulties in comparing remuneration across countries and currencies. However, the benchmarking element of RPE was not totally absent from Steel. The company was compared to international steel producers also some divisions or cost items were compared to international producers in Germany or Japan.

Fifth: In addition to competition, both sets of data in Egypt and the UK -either for individual companies or aggregated in sectors (private sector vs. public sector) or taken nationally- suggested that corporate culture, sectoral culture and type of ownership would affect RPE. It was found that the environment, values and circumstances of the public sector in Egypt (detailed in Chapter 6) which featured low pay, poor facilities, lack of autonomy, power, initiatives and motivation was appropriate for RPE. In contrast, the private sector environment in Egypt and the UK -as inferred from United

Utilities' case- with high pay, employee's taking responsibilities, autonomy, power, encouraging motivation and initiatives all seem to be relevant to applying RPE.

Sixth: While the previous literature defined RPE by referring to top management only and did not question its relevance to other managerial levels, the UK practice of RPE implied that it was applicable to top management only. This research predicated that the core idea of RPE could apply to all managerial levels but in different forms. For example, the basis for comparison could be "other companies" for the senior level because this level would be responsible for the overall performance (i.e. the company) but that should differ for different managerial level. For middle management and below, comparison with "internal" peers such as other divisions in the company was more acceptable.

Seventh: In the sense stated in "sixth" above, all performance management is relative to different bases. Influences of market/industry and competition seem to push the relativity towards external units generally, whereas the managerial level (specially the lower) forces it back to a comparison with internal divisions. It seems that I started with a normative view and ended with a contingent one. This research began with an expectation that the elements of RPE might affect the employees' response to it. More specifically, the research arguments were built up on the assumptions that, in order that employees' be motivated by RPE, the peer group should represent a challenging but attainable target, the performance should be measured in both financial (but not market-based) and non financial terms and varying reward. The research -instead- concluded with a contingent framework, while the peer group and performance measures were found to be influential on the employees' response as previously predicted, this was not universally valid. RPE could be used in an environment where there were external influences from the market and competition and internally, RPE would need a supportive organisational environment which encouraged competition between the employees and supportive leadership. In such circumstances, the essence of RPE -i.e. the idea of comparing employees' performance to that of other performers- could apply on different managerial levels using different basis for the comparison (i.e. different reference group).

Different elements of contribution could be identified in this research with relation to the methodology, covering gaps in the literature, and links to the accounting literature.

Regarding the methodology and method, various themes could be recognised: (1) The theoretical debate in this study provides identified the limitation of agency theory as a framework for investigating RPE. (2) The discussion in this research and the evidence supported the relevance of contingency framework for the research arguments which constitutes a shift from the previously dominating agency framework. Contingency was used as a bridge for the case studies and provided more complex framework for examining RPE than agency theory. For example, it allowed an examination of many arguments about RPE such as its motivational power, the employees and designers' perception and experience with it.

(3) The research fulfilled the invitations of academic bodies such as the Academy of Management in its call for papers for its conference about pay and firm performance in 1996. The Academy called for innovative methods of research in this area and a departure from the conventional ways which depended on archival data, also sought multi disciplinary research (rather than the economic dominance) and a cross cultures (rather than the overwhelming USA studies) modes of studies. This research depended on case studies approach and collected data from subjects who are directly involved in the phenomenon -by questionnaire and interviews- rather than using published data as previous studies did. This duality of methods compensated the weaknesses of each if applying individually. Correlation provided the causality relationships between the variables.

The debate while purposely kept within the accounting domain, the nature of the topic and studying motivations and social comparison theory led to extending the origins to psychology and some industrial relations literature (e.g. the study of Gibbons and Murphy 1990 published in Industrial and Labour Review). Furthermore, conducting the case studies in Egypt and England allowed a chance to report and explore RPE which was developed in western (Anglo- Saxon) culture, in other culture, and in different sectoral cultures in that environment (e.g. the private sector and the public sector's culture). Also, the research introduced such practices -which rarely exposed to the international domain- with reflections of the history, implications, individuals' perceptions and attitudes and the economic and political backgrounds from which these practices emerged.

(4) Regarding links to the wider accounting literature of performance measurements and evaluation, this line of enquiry led to firstly, looking at RPE as a control system and this formed the thread by which the research arguments were linked together. Secondly, that raised new issues about RPE such as the difficulty of the peer group, performance measurement (financial or non-financial) and the suitability of various rewards to various employees (5) Taking the debate about RPE inside the organisations enriched the discussion by new elements such as the impacts of employees' attitudes towards controls, organisational culture and strategy on RPE.

(6) The research covered some gaps in the literature of RPE by focusing the debate on two specific areas: the content and the context of RPE. This included exploration for the individual, organisational and environmental domain within which RPE might function effectively. Thus -unlike the previous literature- it examined the argument which used to be taken for granted that RPE would motivate employees. This research questioned the ability and mechanism by which RPE might do that. (7) The investigation examined RPE beneath CEO level and whether there could be different versions of it for the different levels, while the previous literature exclusively allocated RPE for top management without asking why? and why not for other levels? (8) The research examined the noticeable practice of RPE in the UK which was built on market measures. The debate included investigation for the implications of stock market on the potential and prospect of the technique and on the mechanism of it. (9) Unlike previous studies, the evidence in this research gathered the views of the appraisers who design and administer the system and the appraisees who are evaluated and rewarded under this system. Both had their own expectations, experience and view in the system and its outcome.

(10.4) Research Limitations

The findings of this research should be interpreted within the following limitations: First, the use of contingency theory as a framework could draw some limitations on the research and its outcomes. Given that the contingency framework was criticised because the conceptualisation and measurements of the key variables need great theoretical and empirical attention. It might also lack the precision in defining contingent factors, mis-specification of parameters and the problems relate to the number of variables included, the interaction between these variables and the difficulty to collect the amount of data required to measure these variables.

The epistemology of case studies was also different from that of the positivistic research in form of a survey for example. The epistemology of case studies which was used in this research allowed the employers and employees -who were social actors- to "provide" the evidence of the developed knowledge about RPE. Also, the process of designing the research tools and interpreting the results was affected by the research's choices. A positivistic research in a survey form, would have allowed lesser impact of personal actors on the data and the research. That is, a survey and working on published data would have used numbers as measures for performance and rewards to investigate the relationships between performance comparisons and RPE (as explained in the alternative programmes in ch. 5). When numbers were used as measurements, this would differ from using perceptual measurements -from the subjects- as happened under the case study approach.
However, the case studies design was a compromise. That is, because it was not the custom of the Egyptian companies to disclose managerial remuneration, objectives, amount, bases or regulations in its annual reports, this restricted the opportunity to identify the Egyptian companies that used RPE. This was partially handled by targeting companies that were known to the researcher to be involved in national or international competition, on the premise that they might be applying RPE. However, access was accidental to the Egyptian companies.

Secondly, while in the UK, the researcher identified companies which used RPE but only limited access was granted from one of them (United Utilities plc). Access to United Utilities was restricted especially with the interviews and with the number of questionnaires in Steel company. The researcher was aware of the dangers of drawing a picture about each company on the bases of that limited evidence. However, it was hoped that the use of many tools, e.g. the interviews and the documentary sources would compensate –to a degree- for the weakness of the small questionnaire sample for those two companies.

Given that the number of questionnaires of Dairy, Steel and United Utilities -individually- was less than 30, this constitute a particular limitation on the importance of the regression results of these companies. However, the regression results were interesting in that, they produced statistically significant relationships (such as in Dairy company page 151 and Steel page 159) although they stemmed from vary small samples.

Thirdly, examining the implications of national culture on the research argument was not explicitly included in the research instruments (the questionnaire and the interviews). While the researcher depended on the framework of Hofestede (1984, 1991) like many studies, there is the risk that the observations made from the data to fit within that framework were given from the participants in a specific context and not regarding national culture investigation.

Fourthly, due to the time and resources constraints, many points have been left without examination e.g. impact of RPE on group's co-operation, the roles of RPE in planning, monitoring or filtering risk, impacts of power, time, personal characteristics and "valuation" of non cash reward, e.g. shares, post retirement benefits.

In methodological terms, the researcher is aware of the debate about deficiencies in the case study approach, mainly lack of generalisability. The researcher would follow streams which emphasise that generalisability was not targeted in the case study approach. That is because this approach justifies itself on the grounds of providing an in-depth investigation rather than generalisability (Hartey 1994, Otley and Berry 1994).

(10.5) Future work

There are many directions for extending this study. An extension to the theoretical line of the study, the contingent outline of RPE which was developed in this study, could be examined on other sets of data, from other industries and in other environments, to support or modify the framework. It would also be important to discover more about the organisational context of RPE.

The case study method could also enrich our understanding of RPE in many aspects such as providing an in-depth examination of different arguments about RPE, and performance management. An example of these aspects could be the impact of managers' being rewarded on RPE on their investment decisions which was examined in experiment by Chow and Haddad (1991), and ended with a call for further investigation for the same point. The case study for this point could provide direct investigation to the argument in the real world. It could also explore how and why RPE might affect managers when taking investment decision, what factors affect that, what experience and rationale behind. A merit of the case study here would be getting feedback from the subjects who are directly involved in the phenomenon.

The case study of Steel company in Egypt suggests that joint venture type of business could have specific effects on control practices which would be useful to be examine in more detail. Besides, in this research, the distinctive differences in controls of the companies with different type of ownership (public, private, joint venture, ...etc) showed the importance to explore –in detail-the ownership impacts on controls. The case of Steel highlighted that the foreigner partners in the joint venture businesses might cause some very recognisable features on the work systems, culture and outcomes. Studying the influences of joint ventures on employees, work culture and controls would be an interesting piece of work and particularly useful to Egypt, which is hosting joint ventures with partners from different countries.

The arguments about RPE need to be examined on bigger sample of data (notice for example the limited interviews in United Utilities and the small questionnaire sample of Steel). The bigger sample could allow more complex statistical tests and hence inferring more relationships, could suggest more/ different variables and hence richer picture about the phenomenon.

An extension of this research could be by directly and purposefully examining the impact of national culture on the potential of RPE. The enquiry about RPE could also be extended to further areas beyond motivation and performance, for example examining whether RPE can play a role in identifying the company's competitiveness and relate this to the wider issues of strategic management accounting.

Another research might relax the point that employees' actions are assumed to be separable under RPE. This could lead to investigating the impact of power which the different type of employees enjoy, on the outcome of RPE. Also, still to be addressed -directly- the influence of RPE on intrafirm competition if RPE is run between colleagues in the same company. This would be particularly important because some respondents recorded that RPE might devastate group spirit and co-operation.

Moving from extensions which relate to RPE, this research suggests a need to address issues relate to the general performance measurements. Among those, it sounds particularly important to discuss how to integrate performance measures, targets and rewards with the business strategy. Furthermore, the valuation of non-cash forms of reward could be examined and the impact of pay gaps on job tension and employees' dissatisfaction (as observed in Trade company and in United Utilities).

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Appendix (A-1)

A Review of Pay- for- Performance Practices in UK

In October 1994, Pay and Benefits Bulletin number 361 contained the findings of its latest review of merit pay systems in operation in 75 organisations. The merit pay scheme is the process of linking all or part of employees' rewards to an assessment of their performance at work. It has become an established method of pay setting for employees in the UK, especially at managerial level. Pay reviews based wholly or partly on merit assessment now make up more than 20 % of all awards recorded on IRS pay databank. The following points will sum up the findings of this survey.

Employee group: Managerial staff are still the group most commonly covered by merit pay structures, although in 29% of organisations (22 out of 75) the whole workforce is eligible for merit payments. Merit systems specifically for manual employees remain rare, used by fewer than 10 % of organisations that apply merit to selected groups of employees.

All merit systems:_All- merit pay structures, in which employees rewards are determined solely by their performance, are used by nearly three quarters of employers (55) for at least one group of employees and by more than one in five organisations (16) for all employees.

Performance appraisal: Employees' performance is assessed for merit pay purposes by means of an annual appraisal by their immediate superior in nine out of 10 organisations.

Criteria: The achievement of per- set objectives, and a judgement by the appraiser of "whole- job" performance was the most common criteria for assessing performance.

Objectives:_ The majority of the respondents said that they introduced the merit pay to improve the individual and corporate performance, and these motives are also felt to be the most frequent benefits of merit pay once in place and;

Monitoring: Only 53% of organisations (40) with merit pay monitor the distribution of awards to check for consistency or to guard against bias. Analysis of the distribution according to grade levels is the most common form of monitoring; conducted by nearly 7 out of 8-organisation (34) which analyse the spread of awards.

Appendix (A-2)

Summery of Practices of RPE in Some UK Companies

This survey of the practices of RPE by some UK companies is based on The Company Reporting Publications (1993-1999) and individual companies reports of 1998 and 1999.

The professional committees' recommendation regarding disclosure of directors' emoluments has been that " separate figures should be given for salary and performance- related elements and the basis on which performance is measured should be explained". This has been recommended to be published with the financial reports of the company. This supplements the Companies Act 1985 which requires only total directors remuneration to be split between services as a director and service of others in connection with the management of the company.

The Cadbury report can be seen to consider disclosure of directors' bonuses (both in the form of cash or share- related benefits) is more transparent. The series of Company reporting handled many of the items of pay package separately in different issues, for example, bonuses in cash, shares options, post retirement benefits ...etc. A remarkable portion of pay packages was in form of shares options from different kinds also an increasing concern is paid to post retirement benefits in these packages.

Disclosure of this information was almost unheard of prior to Cadbury, and was often restricted to larger companies. Most of the RPE applications in the companies come under the heading "Long Term Incentive Scheme" LTIP and exclusively applicable to the most senior management. It is noticeable that there is a growth in share- related bonus awards. Also, results- oriented factors and attaining targets are the most commonly disclosed factors in the bonus schemes. In this respect, the (growth) return on shares is found to be the most commonly used indicator for performance (no clarification of its meaning or basis of calculation was given but theoretically Lambert and Larker (1987, p:92) defined it as: total firm's capital gains and dividends divided by the stock price at the beginning of the year) Nevertheless, other measures were used.

Performance based pay was a common practice in almost all companies. Different kinds of calculation criteria were used. Some companies related pay to the future performance (e.g., the growth in earnings in the next 3 years will entitle the director to a certain bonus). Others compared it with the performance in a period in the past, with a target or with "peers" in the industry or the best 100 companies nation-wide. However, some companies such as Berkeley group does not disclose the bases for awarding (i.e. the criteria for entitlement or amount of reward). Examples of these practices are provided below followed by analyses of these practices.

1- National Westminster Bank:

Executive share options are granted to executives upon achieving targets which depends on the position of National Westminster Bank among the FTSE 100 companies. Performance is measured by total shareholder's return. The scheme bands are as follows:

* 100% of the annual salary will be awarded in shares if Nat West is in the top 12 position.
* Between 98% and 25% of the annual salary will be awarded if Nat West is in a position between the 13 and 50 position.
* No shares will be awarded for a position below 50th.

National Westminster Bank emphasises that the aim of this plan is to align the interest of managers to the interests of shareholders. The bank disclosed in 1999 annual report (page 67) that in order to enhance the scheme, it was decided to increase the award to 1255 of the annual salary.

2- Boots:

Boots adopted RPE reward scheme in form of a long term bonus plan, since 1995. This plan is thought to provide a link between the pay of executive directors and the creation of value for shareholders. Company's performance is measured over rolling, for 4 years. Performance is measured in terms of total shareholder return and assessed relative to a peer group of 10 other leading companies which are reviewed before each performance cycle to maintain relevance. For the cycle ended 31st March 1999, the peer group was: Great Universal Stores, Kingfisher, Marks & Spencer, Reckitt & Colman, J Sainsbury, Sears, Smith & Nephew, SmithKline Beecham, Tesco and W H Smith. After the end of each performance cycle, one half of any bonus earned is paid in cash. The value of the remaining half is converted into an equivalent number of shares of the company.

2- Reuters Holdings PLC:

Shares awarded to each senior executive is determined by dividing an amount between 50% and 75% of annual salary on the light of comparing Reuters' total shareholder's return "TSR" compared to that of the top 100 companies listed in London Stock Exchange as rated by the Financial Times. Performance is measured over a three-to five years period and TSR is determined based on the internal rate of return from cash flows which investors make over the period.

3- Rank Organisation PLC 1999:

In its recent accounts *Rank* join the growing nucleus of companies whose remuneration committees confirm compliance with the recommendations of the Greenbury Code. The report states that the exercise of directors share options, granted under 1995 scheme, is conditional on growth in normalised earnings per share of at least 3% over the increase in the UK retail price index over a three year period. The long term incentive plan "LTIP" reward directors with shares valued up to 10% of their salaries should normalised earnings per share exceed the increase in the UK retail price index by 3%. The reward increases to 100% of the annual salary for a 21% compound real growth over the index.

4- Chill

In 1996 the company introduced a long term incentives plan for senior executives and executive directors. The aim of this plan stated -in 1998 annual report- is to align the efforts of key executives with the company's objective of creating shareholder value in the long term. The LTIP awards are the only form of bonus. Under LTIP, conditional awards of shares and cash are made to executive directors (who could receive a maximum of 100% of their annual salary) and other executive (who could receive up to 30% of their annual salary). According to the plan, no part of an award will be released unless the percentage change in earnings per share of the company over 4 years period, equals or exceeds the percentage change in the Retail Price Index plus 2%. If these targets is met, the comparator TSR compared to that of 24 peer group companies in the FTSE food producers sector will determine the percentage of the maximum to be received by participants.

5-Abby National

Abby National adopted RPE in a long term incentive plan in 1997 and aimed to enhance the link between the reward of executives and the company's medium and long term performance and incorporates challenging performance targets measured over a 3 years period. The performance targets are based on the share price and dividends performance (TSR) of the company relative both to specified financial institutions and to the constituents of the FTSE 100 share index. For 1998- 2000 performance period, the specified financial institutions are: Bank of Scotland, Barclays, National Westminster bank, Lloyds TSB, Royal Bank of Scotland, Legal & General, Prudential, Alliance 7 Leicester, Halifax, Northern Rock and Woolwich.

According to the scheme, the individuals are conditionally granted share to a maximum value of 70% of their basic salary. Half of the awards will be determined by the TSR of the company relative to the FTSE 100 index. The other half will be determined relative to the specified financial institutions. The two parts of the awards are determined separately. For each part, the award will be made in full if the company is ranked in the top quartile of the relevant comparator group, 25% of the award will be made if the company is ranked at median and pro rata between the two points. For each part, no award will be made if the company is below median in the comparison.

6: Bass

Bass started a long term incentives plan in 1994 and aimed to align the interests of executive directors and senior executives with those of the shareholders. The plan is based on shares rather than cash or benefits. The company compares its total shareholder's return against that of ten competitor companies. The awards are granted as follows:

* 12.5% - 50% of the basic annual salary if → Bass leads the ten companies
* 2.5%- 10% of the basic annual salary if → Bass in the 5th place
* Nothing will be awarded if → Bass in below the 5th place

7- British Telecommunications PLC

The company is moving away from executive option schemes to a long term remuneration plan. That plan allows a provisional allocation of shares which will vest at the end of 5 years only if BT's total shareholder's return meets a predetermined performance target relate to the FT-SE 100 companies. The initial value of the awards is between 33% and 100% of the annual salary.

8- Dixons Group PLC

Among the items of the directors remuneration package are performance related share options. Ordinary shares of the company could be awarded depending upon the company's total shareholder return over 3 years period relative to a group of leading retail companies. For the 3 years ended on May 1998, the company achieved the 3rd place among the comparator retailers.

9-Cookson

The company provides executives with share options expressible if the growth in earnings per share of the company at least equals the Retail Price Index plus 3% per annum over the three-year period.

10- Royal & Sunalliance Insurance

IN 1998, an incentive scheme was approved whereby shares would be granted upon meeting specific performance targets over any 3 years. The value of shares equals the annual salary multiplied by 1.6. All the following performance targets should be met before any shares are released:

* growth in the group TSR must be in the top quartile of a defined group of 112 leading US, UK and continental European insurers.
* growth in the group TSR must exceed the UK Retail Price Index "RPI" by 2% per annum.
* the group share price must grow by between 3-20% with 20% growth required if the 100% of the shares are to be vested.

If TSR growth is below the comparator group median or RPI plus 2% is not achieved, no shres will vest. Between 30% and 60% of the shares will vest for TSR growth which falls outside the top quartile but which is at or above the comparator group median. TSR is based on share price and cumulative cash dividends.

The following general observations have been noticed concerning the practice of the RPE in the British environment

-Performance -based pay schemes are widely and increasingly used.

-There is an evidential concern of using shares options in the remuneration packages in different forms and a good deal of attention paid to the post retirement benefits.

-Explicitly or implicitly pay of performance schemes is viewed as long-term incentives.

- The valuation of the items of pay (such as shares options and post retirement benefits) is among the major problems in accounting for employees' remuneration.
- There is a strong recommendation for companies to adopt performance based incentives and to disclose that in the financial reports by committees like " The Code of Best Practice" by Greenbury Committee (1995) and Cadbury Committee (1992).

These committees encourage detailed disclosure about the items of directors' pay and its bases.

-Growth in the return on share price is the mostly used measure for directors' performance in these plans.
- Different kinds of comparisons are used to build up these incentives. Sometime it is a comparison with the results in the past, the results of colleagues, in the sector or nationally with the best 100 company (according to the classification of the financial Times of the companies in the Security Exchange).
- Although there is a statement from the FASB "Financial Accounting Standards Board" about the accounting treatment of the directors' remuneration, there is still diversity in doing that in the practice.

-Firms set targets on different levels of difficulty when planning pay. Basically all companies guarantee a basic salary and provide bonuses if a pre- set target has been achieved then they move to another level by comparing with previous work or colleagues or the industry and finally comes the comparison with the best 100 company.
- There is a monotony and consistency in applying the RPE in some companies, for example, Bass started using it in 1994 and continued using it (till 1999 annual reports were published), National Westminster Bank has been applying it since 1994, Reuters since 1993, Chill since 1996 and Berkeley since 1995.

An analysis of the practices of RPE in the UK companies

Based on the available data about the practices of the RPE by 17 companies belong to 15 industries, the discussion will follow these points:

- the comparators
- the patterns of applying the RPE
- the factors influence or guide these practices
- the measures of performance that have been used in applying these packages
- the form of paying the RPE's reward
- the managerial level which is rewarded upon the RPE

- who manage / design the RPE schemes in these companies.

(1) The comparators

The previous presentation of examples RPE schemes in some UK companies reveals that different peers were used as targets that should be achieved before rewards are released for example:

-**FTSE 100**; used by National Westminster Bank, United Utilities, Reuters, BOC, Abby National.

- **UK Retail Price Index**: used by Rank, Cookson, Chill

- **A specific group of competitors**: used in the application of Boots, Dixons, Bass, United Utilities, Chill, Abby National.

(2) The patterns of applying RPE:

Various patterns of using the RPE, either in deciding who the peers are or in designing the package as to a "one level of comparison" or multi levels with multi payments to employees. For example, the hotel and restaurants company Bass, measures the total shareholder return against that of **ten competitor companies** (no details about them are given) and the reward goes as follow:

- 12.5% to 50% of the annual salary will be awarded if → Bass leads the ten companies.

-2.5% to 10% of the annual salary if → Bass is in the 5th place

- Nothing will be awarded if → Bass is below the 5th place.

BOC's application requires that its share price outperform the average of FT-SE 100. Cookson group provides executives share options expressible three years after satisfying a performance condition, it's that the earnings per share of the company must at least equals the Retail Price Index plus 3% over the three-year period. Reuters compare its return on share with the FT-SE100 before releasing the incentives in form of shares.

When reviewing these practices, it could be concluded that the most commonly used reference group is the FT-SE 100, and the objective in these companies not to equalise them but outperforming them in most cases.

Taking into account that the FT-SE 100 companies form the "best performers" in the nation not the average, it could be concluded that applying the RPE in the UK involved on an ambitious plans to trigger managers to work hard. Also the period of time which entitles the manager for the reward ranged from 3-5 years which means that the RPE was seen as a long term incentive plan and the long term consequences of the decisions and performance were taken into consideration when deciding such plans.

Comparing to the literature, these practices are consistent, in some cases the employees are rewarded upon the result of the comparison in form of the increase (or decrease) in the output and that of the peers. Dye (1992) suggests this form, while in other studies (e.g. Magee, Gibbons, Antle) proportionate the output of the employee to the peers'. But, what the practice enrich in this topic is setting the targets on a scale, different amounts of rewards for different levels of difficulty (achieving a place among the top 10 companies is rewarded differently from achieving a place among the last 40 companies among the top 100). This could be seen as setting targets in different degrees of difficulty.

(2) The measures of performance in these practices:

The most common measure for the performance of the employees in these practices is the earnings per share or return on shareholder (Boots, Bass, National Westminster bank, Royal and Sunalliance insurance, Chill, Abby National and Reuters). That has been used by companies belong to different industries. In some companies, the share price itself was used (as by Nat West). Berkeley group of construction uses three measures: earnings per share, increase in net asset value and share price performance.

In a previous experience reported by Company Reporting Publications, only one company discloses the use of financial and non-financial indicators for performance, Norweb, the electricity company before it was taken over by United Utilities Company (the experience of the latter company is investigated in detail in this research- data provided in chapter eight). It used five measures, share price, electricity price, earnings per share, controllable costs and customer services. (It was also shown in those publications in a broad review for patterns of setting director remuneration that Nuclear Power company involve information about safety among its criteria for assessing the directors' performance). This use of the financial measures is consistent with the literature where the financial measures are considered still dominant for the purpose of evaluating performance. It is also consistent with applying this package on the level of top management only, which is presumably responsible for the whole work of the organisation, which in turn is reflected in the change in the earnings per share.

Another observation regarding the measures is that, the majority of firms measure the "growth" or the "movement" or the "increase" in the measure not the measurement in a specific point in time. This has been suggested in the literature as well and tested by Gibbons and Murphy. The span of time which is taken to trace the growth over range in the practice from three to five years and it seems a reasonable period to trace the consequences of the decisions upon it.

Only BOC company uses the price share as a performance indicator, this can be critically discussed on the ground that if the market value rather than the accounting value for the share is used, the employees might not be satisfied by its representativeness of their work. The market share price can be seen as it reflects actions and factors which are beyond the control of the employees so they should not be held responsible for them and consequently, should not be rewarded upon them.

(3) The objectives from using RPE

Not many factors are disclosed in the publications of company reporting, but building rewards on comparisons is confirmed to be only one item in the pay package. However, in terms of objectives from using RPE, National Westminster bank states that the scheme was established for those who are best placed to maximise shareholders value. Boots states that the long term bonus scheme was developed to provide a link between the pay of executive directors and the creation of value for shareholders. Dixons records that remuneration committee considers it important to include a significant element of performance based reward which is designed to develop a longer term alignment between the interests of shareholder and its senior management.

The remuneration policy of BOC -a chemicals and health care- is to design the remuneration to reward performance and to attract and retain the highest calibre of executive. Berkely which works in the construction, discloses that the scheme is designed to encourage the directors to increase their contribution to the performance of the group, to foster a greater sense of loyalty and to encourage a community of interest between the company's shareholders and its executive directors.

The literature of the RPE has not mentioned the long term nature or impact of the RPE. Furthermore, the different objectives which the practitioners show from applying the RPE such as retaining high quality of employees, helping in goal congruence and increase loyalty are new enhancement by the practice to the technique.

(4) The form of paying RPE's Reward:

In almost all the companies that use the RPE, they pay it in form of shares, subject to some restrictions. However, Boots, Chill and United Utilities award it in cash and shares. According to the literature - and consistently with the actual practices- this should suite the top management. But a question arises when the package is applied on other levels.

(5) To Whom the RPE' reward is applied:

In contrast to the theory where the RPE can be applied on all managerial levels, in practice it is used for the top management only.

In all the companies, it is used for the directors or the executives.

It is aimed in this research to investigate why this is the case.

(6) Who manage the RPE schemes?

In all the companies, a committee of non-executives or a pay and remuneration committee manages the RPE.

Appendix (B-1) The pilot questionnaire

Effects of the relative performance evaluation: A questionnaire

- All the questions should be answered on a scale of five points rang from: strongly agree to strongly disagree unless else specified.

Part One: Introductory section:

Information about the respondent:

- Post Held: Section Chief in production department

- Job description:
  - -cost centre [ ]
  - -profit centre [x]
  - -investment centre [ ]

- To what extent do you take part in designing the remuneration systems in your company.
  -totally absent [ ] -consulted about it [ ] participate in designing it [ ]

Part Two: General background about the system of evaluating performance in the company:

1- The performance of the employees in your company is evaluated according to:

	yes	no
- meeting the budget	[x]	[ ]
- meeting targets	[x]	[ ]
- comparing with the performance in the past	[x]	[ ]
- comparing with the performance of peers, competitors	[ ]	[x]
- others, please specify............		

2- Could you rank those criteria according to your preference (acceptance).
- the first: Meeting targets
- the second: " " budget
- the third: Comparing with the performance in the past
- the forth: " " " " of Competitors.

3- Do you use the relative performance evaluation "RPE" to build incentive plans.
[The RPE means rewarding upon the performance compared to the performance of peers].
yes [ ] no [x]

4- Do you think rewarding upon the relative performance can help in:

	strongly agree	agree	not specified	disagree	strongly disagree
-motivating the employees to work hard.	[ ]	[x]	[ ]	[ ]	[ ]
- indicate the real effort of the employees.	[ ]	[x]	[ ]	[ ]	[ ]
- others, please specify:............					

5-Do you think employees (or yourself) are interested to be seen -by colleagues, peers, competitors- as hardworking people. [ ] [ ] [ ] [ ] [x]

6- What are the objectives which you seek from work:
(please tick as appropriate)

- money	[ ]	[ ]	[ ]	[x]	[ ]
- gaining esteem	[ ]	[ ]	[ ]	[x]	[ ]
- doing something outstanding	[ ]	[ ]	[ ]	[x]	[ ]
- Others, please specify	[ ]	[ ]	[ ]	[ ]	[ ]

7- Do you expect to continue to give that importance to each item.
[ ] [ ] [ ] [ ] [x]

8-Do you think rewarding on the RPE holds some social appreciation to you. ?

☐ ☐ ☐ ☐ ☐

9-If (8) is yes, do you accept your reward to be tied to your relative performance.

☐ ☐ ☐ ☐ ☐

?10- Which one would you prefer more: getting a reward in form of money or the medal of the worker of the year.

Money	☐	☐	☐	☐	☐
Medal	☐	☐	☐	☐	☑

11- When you accept the RPE, do you seek to achieve:
(please tick as appropriate)

- Social recognition	☐	☐	☐	☐	☐
- More money through competition	☐	☐	☐	☐	☐
- Both	☐	☐	☐	☑	☐

12-Do you think that employees would be interested that the others know how they do in their work, for example through the union's publications or the industry bulletin.

☐ ☐ ☑ ☐ ☐

13- Do you know your peers, competitors and the best performer in the field.

yes ☑ no ☐

14- If (~~18~~ 13) is no, would you (or the employee) be interested to know.

☐ ☐ ☐ ☐ ☐

15- Do you think it would be useful if employees have been aware that their jobs are dependent on their companies ability to compete effectively.

☐ ☐ ☐ ☐ ☑

16-What factors affect the design and implementation of the RPE.

1-.......Target figure
2-.......The unit work condition (new unit, Expanded, old)
3-.......The all Company situation
4-.......Sometimes the Country/Government policies

17- Do you apply the RPE on:

-cost centres	yes ☐	no ☑
-profit centres	yes ☐	no ☑
-investment centres	yes ☐	no ☐

18- If the above is "no", could you please explain why. – we consider every unit in the Company as a separt unit with a special Budget/target figures.

19- Do you use the RPE for:

-Top management	yes ☐	no ☐	? I don't
-Middle management	yes ☐	no ☐	? Know.
-Division management	yes ☑	no ☐	
-Shop floor	yes ☑	no ☐	

20-If the answer on one of the above is "no" could you please explain why.

....

....

21-If (19) is "yes", are there any difference in the patterns used for the different levels.
Please specify......we compare for example the shop floor performance as a shift wise results.

22-How do you implement the RPE,
a- on a scale (different levels of targets) yes ☑ no ☐
b- only one target. yes ☐ no ☐

23- Does the type of work, diversity of the task activities encourage the use of the RPE.
yes ☑ no ☐

24- Do you think that your peers should belong to:

1 -the same company ☐ ☐ ☐ ☐ ☑
2 -companies in the same region ☐ ☐ ☐ ☐ ☑
3 - the same industry ☐ ☐ ☐ ☐ ☑
4 - nation wide ☐ ☐ ☐ ☑ ☐
5 - the best 100 company in the UK ☐ ☐ ☐ ☐ ☐

25- Can you rank the previous peers according to the difficulty to compete with.
-the first..........1
-the second.......2
-the third.........3
-the forth..........4
-the fifth..........5

26- When you use the RPE, do you compare the performance with:
- the average of the peers yes ☐ no ☐
- the best performer among the peers yes ☑ no ☐

27- Do you think those peers as stated in (24), constitute gradually more and more difficult targets to compete with. ☐ ☐ ☐ ☑ ☐

28- Do you find it encouraging to you if the system moves from one level of difficulty to another, gradually. ☐ ☐ ☐ ☐ ☑

29- Which one of those peers do you consider a "fair" or "attainable.
......Same Company and Companies in the Same region.

30- How do you react to the existence of the "others" in the evaluation system, would you be interested to:
a- achieve the amount of outcome which they achieve. ☐ ☐ ☐ ☐ ☐
b- would you be interested to follow their ways of work. ☐ ☐ ☐ ☐ ☐
c- both (a) and (b). ☐ ☐ ☐ ☑ ☐

31- Have you experienced the RPE before. yes ☑ no ☐

32- If the above is yes: - have you been informed about your peers yes ☑ no ☐

- have you participated in selecting the peers yes ☐ no ☑

33- How long did you continue to be satisfied about the system, why.

34- Do you think your work is well expressed in:
- financial terms [such as: cost, profit,...]
- non financial terms [produced units, time, quality,..]

35- Do you think the financial measures meet the following aspects as indicators to your work:
-comprehensiveness
-controllability
-quality/accuracy
- time span

36- What is the importance of the following aspects of your work which you like to be reflected in the RPE process:

5 -innovation
- customer services
5 -quality
4 -developing new products
4 -new markets
-investing in new industries
5 -efficiency of material management
5 -reducing cost
5 -meeting budget
5 -meeting the profit and other financial targets.

37-Have you experienced financial and non financial measures for your work. yes no

38- If yes, was it encouraging to you to accept and support the RPE that the system included non financial measures to your work.

39-Have you been evaluated before by market measures. [Please note: market measures are measures contain items determined by the market transactions in the shares of the company].
yes no

40- If yes, please give details.

....

....

41- If no, do you think market measures reflect your work satisfactorily.

42- If you have been rewarded on the RPE, have your work been measured by:
(a) accounting measures only. yes no
(b) market and accounting measures. yes no

43- Do you think using accounting measures (rather than) market measures would encourage competing with others and using the RPE. 2½

44- Which of the following measures reflect more the actions which are under your control when they measure your performance: (please tick as appropriate)
- accounting measures
- market measures.

45-When implementing the RPE, do you see that performance should be measured in:
- static amounts in specific point of time.
- the change in the measure over a period of time .

46- What is the length of time which you prefer the measure to cover.
-.......... One year ....

47- What accounting choices are there when applying the RPE.
unit consumption - unit cost - total production
total profit

48-Which of the following measures would you select when implementing the RPE:
(tick where appropriate)

- -return on common stock ☐
- -return on assets ☑
- -return on equity ☐
- -amount of sales ☑
- -growth of return ☑
- -growth of sales ☑
- -cash flow. ☑

49-How are remuneration and incentives planned in your company.
-according to target figures in:
1- production
2- sales
3- Quality

50-Do you accept some items to be paid to you in non immediate cash form (e.g stock options, deferred pay,...). ☐ ☑ ☐ ☐ ☐

51- Do you prefer the reward on RPE to be paid to you in cash after the evaluation's result.

☐ ☐ ☐ ☐ ☑

52- What is the importance of each of the following pay items to you:

-cash	☐	☐	☐	☐	☑
-shares	☐	☐	☐	☐	☑
-deferred pay (such as post retirement benefits)	☐	☐	☑	☐	☐
-holiday and welfare	☐	☑	☐	☐	☐
-better working conditions.	☐	☐	☑	☐	☐

53- Have you been paid upon the RPE. yes ☑ no ☐

54-If (53) is yes, a- How have you been paid:

	yes	no
-cash	☑	☐
-shares	☐	☐
-pension contribution	☐	☐
- others	☐	☐

b- Was that satisfying to you. yes ☑ no ☐

c- Why...

d- Do you think it would be helpful if the pay package contained more various items to encourage the use of RPE.

☐ ☐ ☐ ☑ ☐

55- If (53) is no, do you think designing pay package to contain various items (cash, shares,...) could be encouraging to the use of the RPE.

☐ ☐ ☐ ☐ ☐

56-How much importance do you prefer to be allocated to the reward upon the RPE among the other pay items. ☐ ☐ ☐ ☐ ☐

Appendix (B-2) The questionnaire used in Egypt Field work

Questionnaire of the field work of a Ph.D

Titled: "Effects of Relative Performance Evaluation"

By: Afaf M Ali

Assistant lecturer of Accounting, Faculty of Commerce- Cairo University

Introductory section:

-Post Held ....

- Job description: -cost centre ☐
  -profit centre ☐
  -investment centre ☐

- To what extent do you take part in designing the remuneration systems in your company.
  -totally absent ☐ -consulted about it ☐ participate in designing it ☐

Part One: Perspectives of Relative Performance Evaluation System:

1- The performance of the employees in your company is evaluated according to:

Rank

- meeting the budget	yes ☐	no ☐	☐
- meeting targets	yes ☐	no ☐	☐
- comparing with the performance in the past	yes ☐	no ☐	☐
- comparing with the performance of peers, competitors	yes ☐	no ☐	☐

- others, please specify...

2- Could you rank those criteria according to your preference in the space provided above.

3-Is your performance being compared to the performance of other employees in similar jobs in other companies.

☐ yes ☐ no

4- if the answer on (3) is yes, do you get any rewards upon comparing your performance and the performance of employees in other companies. ☐ yes ☐ no

5- Do you think rewarding upon the relative performance can help in:

	strongly agree	agree	not specified	disagree	strongly disagree
-motivating the employees to work hard.	☐	☐	☐	☐	☐
- indicate the real effort of the employees.	☐	☐	☐	☐	☐

-others, please specify:.. ....

6- What are the objectives which you seek from work : (please tick as appropriate)

6- What are the objectives which you seek from work : (please tick as appropriate)

	strongly agree	agree	not specified	disagree	strongly disagree
-money	☐	☐	☐	☐	☐
-gaining esteem	☐	☐	☐	☐	☐
-doing something outstanding	☐	☐	☐	☐	☐

-others, please specify...

7-What factors affect the design and implementation of the RPE.

1- ....

2- ....

3-...

4- ....

8- Do you use the RPE for :

-Top management	yes ☐	no ☐
-Middle management	yes ☐	no ☐
-Division management	yes ☐	no ☐
-Shop floor	yes ☐	no ☐

9- If (8) is "yes", are there any difference in the patterns used for the different levels. Please specify

....

....

....

....

10- How do you implement the RPE ,

a- on a scale (different levels of targets)	yes ☐	no ☐
b- only one target.	yes ☐	no ☐

11- Do you think that your peers should belong to:

	strongly agree	agree	not specified	disagree	strongly disagree	Rank
-the same company	☐	☐	☐	☐	☐	☐
-companies in the same region	☐	☐	☐	☐	☐	☐
- the same industry	☐	☐	☐	☐	☐	☐
- nation wide	☐	☐	☐	☐	☐	☐
- the best 100 company in the UK	☐	☐	☐	☐	☐	☐

-others, please specify,...

12- Could you please rank the previous peers according to the difficulty to compete with in the space provided above.

	strongly agree	agree	not specified	disagree	strongly disagree
- "the avarage" performance of this group.	☐	☐	☐	☐	☐
- or "the best performer" in this group	☐	☐	☐	☐	☐

14- Do you think your work is well expressed in:

	strongly agree	agree	not specified	disagree	strongly disagree
-financial terms [such as: cost, profit,...]	☐	☐	☐	☐	☐
-non financial terms [time, quality, accuracy]	☐	☐	☐	☐	☐

15- Do you think the financial measures meet the following aspects as indicators to your work:

-comprehensive: i.e they reflect the different aspects of your work.

strongly agree	agree	not specified	disagree	strongly disagree
☐	☐	☐	☐	☐

-controllable: i.e they reflect actions and decisions you take them.

strongly agree	agree	not specified	disagree	strongly disagree
☐	☐	☐	☐	☐

- time related: i.e they represent the consequences of your decision through time.

strongly agree	agree	not specified	disagree	strongly disagree
☐	☐	☐	☐	☐

	strongly agree	agree	not specified	disagree	strongly disagree
-accurate :	☐	☐	☐	☐	☐

16- What is the importance of the following aspects of your work which you like to be reflected in the RPE process:

	strongly agree	agree	not specified	disagree	strongly disagree
-innovation	☐	☐	☐	☐	☐
-customer services	☐	☐	☐	☐	☐
- quality	☐	☐	☐	☐	☐
-developing new products	☐	☐	☐	☐	☐
-investing in new markets	☐	☐	☐	☐	☐
-investing in new industries	☐	☐	☐	☐	☐
-efficiency in material managmenet	☐	☐	☐	☐	☐
-reducing costs	☐	☐	☐	☐	☐
-meeting targets	☐	☐	☐	☐	☐

17- Do you think that using non financial measures (in addition to the financial measures) would encourage the use of the reward system upon relative performance:

strongly agree	agree	not specified	disagree	strongly disagree
☐	☐	☐	☐	☐

18-Have you been evaluated before by market measures. [Please note: market measures are measures contain items determined by the market transactions in the shares of the company].

yes ☐ no ☐

19- Do you think market measures reflect your work satisfactorily.

strongly agree	agree	not specified	disagree	strongly disagree
☐	☐	☐	☐	☐

20- Which of the following measures reflect more the actions which are under your control when they measure your performance: (please tick as appropriate)

	strongly agree	agree	not specified	disagree	strongly disagree
- accounting measures	☐	☐	☐	☐	☐
- market measures.	☐	☐	☐	☐	☐

21- Do you think using accounting measures (rather than) market measures would encourage competing with others and using the RPE.

strongly agree	agree	not specified	disagree	strongly disagree
☐	☐	☐	☐	☐

22- What is the length of time which you prefer the measure to cover.

....

....

23- How are remuneration and incentives planned in your company.

....

....

....

....

....

24- How would you prefer to collect your rewards on RPE:

	strongly agree	agree	not specified	disagree	strongly disagree
-cash	☐	☐	☐	☐	☐
-shares	☐	☐	☐	☐	☐
-deferred pay (e.g post retirement benefits)	☐	☐	☐	☐	☐
-holiday and welfare	☐	☐	☐	☐	☐
-others, please specify					

....

25- If you are receiving a reward upon relative performance, would you prefer to receive it in:
(please tick as appropriate)

-cash ☐
-shares ☐
-post retirement benefits ☐
-other forms, please specify

....

26- Do you think designing pay package to contain various items (cash, shares,...) could be encouraging to the use of the RPE.

strongly agree	agree	not specified	disagree	strongly disagree
☐	☐	☐	☐	☐

Appendix (B-3) The questionnaire used in England Field work

Sheffield Hallam University
School of Financial Studies and Law

Research Project

Effects of the Relative Performance Evaluation

Introductory section:

-Post Held ....

- How long have you worked for United Utilities (or the pre decided companies). ☐

- Job description:
-manage a cost centre ☐ -manage a profit centre ☐ -manage an investment centre ☐

- Do you participate in designing the remuneration systems in your company.
-yes ☐ -no ☐ -consulted about it ☐

Part One:

Perspectives of Relative Performance Evaluation System:

1.a- **Is the performance of the employees in your company evaluated by matching against:**
(please tick)

	yes	no	Rank
- the budget	☐	☐	☐
- the targets (if different from budget)	☐	☐	☐
- the performance in the past year	☐	☐	☐
- the performance of colleagues in the company	☐	☐	☐
- the performance of peers in other companies	☐	☐	☐

- others, please specify...

1.b- **Could you please rank those bases in the order from the most fair (rank 1) to the least fair (rank 5)** in the space provided above.

2- Are you rewarded upon relative performance evaluation “RPE”.
[Please note: The RPE means rewarding an employee upon his/her performance compared to the performance of his/her peers].

yes ☐ no ☐

3- Do you think rewards upon the relative performance would:

	strongly agree	agree	not specified	disagree	strongly disagree
-motivate employees.	☐	☐	☐	☐	☐
-reveal the employees' effort.	☐	☐	☐	☐	☐

-others, please specify ....

4.a- To what extent do you seek the following from your work?

	strongly desirable	desirable	not specified	not desirable	strongly not desirable	currently satisfied
-money	☐	☐	☐	☐	☐	☐
-gaining esteem	☐	☐	☐	☐	☐	☐
-doing something outstanding	☐	☐	☐	☐	☐	☐
-personal satisfaction	☐	☐	☐	☐	☐	☐
-promotion	☐	☐	☐	☐	☐	☐

-others, please specify ....

4.b- Which of the objectives in (4.a) is satisfied currently by your company's pay system, please tick in the box to the right above.

5- Which of the following objectives do you agree that RPE would satisfy:

	strongly agree	agree	not specified	disagree	strongly disagree
- Social recognition	☐	☐	☐	☐	☐
- More money through competition	☐	☐	☐	☐	☐
- Both	☐	☐	☐	☐	☐

Part Two:

The elements of a RPE system:

I: Targets:

6-What factors -do you think- should be considered when establishing an RPE system?

1..

2..

3..

4..

7- In your company, is RPE used for rewarding:

	yes	no	I do not know
-Senior management	☐	☐	☐
-Middle management	☐	☐	☐
-Junior management	☐	☐	☐
-Shop floor	☐	☐	☐

8.a -If the answer on one of the above is "no" could you please explain why?

....

....

....

....

8.b -If the answer on more than one of the items in (7) is "yes", are there any difference in the RPE patterns used for the different levels.

yes ☐ no ☐ I don not know ☐

Please explain ....

....

....

....

8.c -Which level (or levels) of management mentioned in (7), should be rewarded by RPE in your view?..

9- Does the RPE scheme in your company provide: (please tick on either **a** or **b**)

a -many rewards for many targets. ☐

Or b -only one reward for one target ☐

10- For an RPE scheme, to what extent do you agree that the comparison group should belong to:

	strongly agree	agree	not specified	disagree	strongly disagree
a -within the same company	☐	☐	☐	☐	☐
b -companies in the same region	☐	☐	☐	☐	☐
c -companies in the same industry	☐	☐	☐	☐	☐
d -the best 100 companies in the UK	☐	☐	☐	☐	☐

e -others (please specify) ....

11-Could you please rank the following groups according to the difficulty to compete with:

	easy and attainable	difficult but attainable	extremely difficult and barely attainable	too difficult and unfair
a -within the same company	☐	☐	☐	☐
b- companies in the same region	☐	☐	☐	☐
c- companies in the same industry	☐	☐	☐	☐
d -the best 100 companies in the UK	☐	☐	☐	☐
e -Your choice in (e) above	☐	☐	☐	☐

12- To what extent do you agree with the following possible reactions if what you consider "unfair" assessment criteria are used in the system:

	strongly agree	agree	not specified	disagree	strongly disagree
a- continue to respond positively.	☐	☐	☐	☐	☐
b- negotiate changes in the system.	☐	☐	☐	☐	☐
c- ignore the system.	☐	☐	☐	☐	☐
d- work against the system.	☐	☐	☐	☐	☐

e-others, please indicate ....

II: Performance Measurements:

13- What is the length of time which you prefer the performance measure to cover.

-one month ☐ -3 months ☐ -6 months ☐ -1 year ☐

14- For an RPE scheme do you think your work would be well expressed in:

	strongly agree	agree	not specified	disagree	strongly disagree
-financial terms [such as cost, profit,...] only.	☐	☐	☐	☐	☐
-financial and non financial terms [quality, time...].	☐	☐	☐	☐	☐

15- To what extent -do you think- the financial measures and the non financial measures would hold the following features as indicators of your work:

	strongly agree	agree	not specified	disagree	strongly disagree
Comprehensive: (i.e reflect the different aspects of your work)					
-financial	....	....	....	....	....
-non financial	....	....	....	....	....
Controllable: (i.e they reflect actions and decisions you take)					
-financial	....	....	....	....	....
-non financial	....	....	....	....	....
Time related: (i.e they represent the consequences of your decision through time)					
-financial	....	....	....	....	....
-non financial	....	....	....	....	....
Accurate:					
-financial	....	....	....	....	....
-non financial	....	....	....	....	....

16- Which of the following performance measures is currently used and which you prefer to be used to indicate your work under an RPE system . Please mark with a tick.

	Currently used	Preferable to be used
-Market related measures:		
-securities market measures	☐	☐
-products & services market measures	☐	☐
-factors (supplies) market measures	☐	☐
-Financial related measures:		
- meeting budget	☐	☐
-profit	☐	☐
-sales revenue	☐	☐
-cost reduction	☐	☐
-accounting measures (e.g return on shareholder, return on investment)	☐	☐
-Operating measures:		
-creativity and innovation.	☐	☐
-customer services	☐	☐
-quality	☐	☐
-developing new markets	☐	☐
-human resources development	☐	☐
-efficiency	☐	☐

-others, please indicate ....

III: Market measures vs. accounting measures:

17- Have you been evaluated before by:

- securities' market measures (such as share price). ☐ yes ☐ no

- accounting measures (such as profit, return on shareholder). ☐ yes ☐ no

18- In the RPE, would you prefer your work to be measured by:

	strongly agree	agree	not specified	disagree	strongly disagree
(a) accounting measures.	☐	☐	☐	☐	☐
Or (b)securities' market measures:	☐	☐	☐	☐	☐

19- To what extent do you agree that you have sufficient control on the following measures:

	strongly agree	agree	not specified	disagree	strongly disagree
- accounting measures.	☐	☐	☐	☐	☐
- securities' market measures.	☐	☐	☐	☐	☐

20- Do you think using market measures would encourage competing with performers in other companies.

strongly agree	agree	not specified	disagree	strongly disagree
☐	☐	☐	☐	☐

IV: The reward form:

21.a- Could you please tick which of the following items is provided in your remuneration package?

- -cash ☐
- -shares ☐
- -post retirement benefits ☐
- - holiday ☐
- -medical coverage ☐
- -better working conditions ☐

☐

-others, please specify ....

21.b- Are you satisfied with this package?

strongly agree	agree	not specified	disagree	strongly disagree
☐	☐	☐	☐	☐

21.c- Could you please indicate why?

....

....

....

22- Under an RPE scheme, how would you prefer to receive your rewards:

	strongly preferable	preferable	not specified	not preferable	strongly not preferable
-cash	☐	☐	☐	☐	☐
-shares	☐	☐	☐	☐	☐
-post retirement benefits	☐	☐	☐	☐	☐
-holiday	☐	☐	☐	☐	☐
-medical coverage	☐	☐	☐	☐	☐
-better working conditions.	☐	☐	☐	☐	☐

-others, please specify ....

23- What percentage do you give for the importance of each of the RPE elements below (as a portion of %100):

-the comparison group
-the performance measures
-the form of reward

Total %100

Thank you for completing this questionnaire, please send it in the envelop enclosed.

Please write here any comments you wish to record regarding this inquiry.

....

....

....

Appendix (B-4)

The interviews' guide

General Background

About the respondent:

1)Job title
2)Job description

About the company:
1) Could you please provide a profile of the company's foundation date, capital, ownership, geographical location/s, organisational structure, activities and products.

Part One: The control system:

Section One: The Planning Process

-Could you please tell me about the process of setting a plan/ budget in your company?
-what time span does it cover?
-who participates?
-who revises it and approves it?
-how structured, divided?
-Does it put on multi levels?
-What factors are taken into account ?
-what is the rational behind that?
-Do you look at the previous performance, the other companies' performance, the general trends in the market, the previous performance,...others, please state?
-Do you include financial and non financial targets, please explain and give examples? what is the relative importance of each?
-Do you plan the targets o to be achievable (by ordinary effort from the employees), attainable (i.e. can be achievable but with an effort level higher than the previous one), challenging (this is a level of achievement more difficult than the previous one).
-How do you know about the employees' identification and classification of these categories?

Section two: Measuring Performance

-what measures do you use to indicate performance of employees? why, for who?

-do you identify the performance of the employees separately from the performance of the divisions, departments or the firm?
-what span of time these measures usually cover?
-who reports about the performance, the performers, the head of each department or a specific department "Follow up department" for example?
-Who is/are responsible for reviewing the reported performance (i.e the implementation of the plan)?
-what are your/the employees perception (reaction) to these measures?
-do you use both financial (e.g cost, profit, loss, sales revenue,...) and non financial (e.g quality, flexibility, accuracy, creativity,...) measures to measure the employees performance? why/ why not?
-what features you/ the employees seek in the performance indexes (e.g being accurate, controllable, representative,...)
-are these features provided in the financial indexes? in the non financial indexes?

<u>Section Three: The Performance Evaluation System:</u>
-what criteria do you/ your company use to evaluate performance? for who? why?
-what factors are involved?
-how do appraisees/ appraisers perceive these criteria?
-what assessment criteria you consider: fair, what is attainable, what is challenging and what is unfair.
-what criteria you think the employees respond most to?

<u>Section Four: The Rewarding system:</u>
-please describe the reward system in your company?
-what bases do you use for awarding incentives and rewards:- meeting the targets adapting to inflation -outperforming competitors -committing to governmental or industrial regulations- others...
-which bases are used for who? in what form, when awarded.
-do you have various forms of pay (shares, holidays, ...)?
-do you think different employees have the same preference to the pay forms?

Part Two: The Relative Performance Evaluation

The following section is a description of an evaluation and pay scheme introduced in the literature as Relative performance evaluation "RPE", it is a remuneration package builds rewards upon the performance of an employee relative to a peer group. The investigation about RPE covers its elements as a control system and the potentials of this system.

-do you have any kind of rewards built on the employees' performance compared to that of their peers', why, why not, for what managerial level, what performance measures you use, what pay forms you use?
-what rational behind used/ not using it?
-what do you expect to achieve from this rewarding scheme?
-if yes, could you please describe how.
-what is the rational behind these choices.
-what factors you take into account when you do that comparison.
-do you think the type of ownership would affect the implementation of RPE? why?
-do you think the company's strategy would affect RPE? why?
-do you think working in a very competitive market would encourage the use of RPE or working in a relatively less competitive market? why?
-do you use a scale of targets with RPE or one target only?
-if you take RPE as a control system, would you consider the comparison group as a "target with a specific of difficulty"?
-if yes, what level of difficulty you consider: fair- what is attainable- what is challenging- what is unfair? Please give examples.
-what is your reaction to this control system which ties a pay item to your comparative performance?
-what is your reaction to the reference group to which you will be matched and rewarded?
-do you think RPE is a challenging system? to what extent? why?
-With RPE, would you respond more positively if your work is measured by both financial and non financial terms? why, why not?
-what features you prefer to be there in the measurements when your pay is given upon your relative performance?
-do the financial measures hold the above? do the non financial measures hold them?
-do you use share price as a performance measures? why, why not?
-would you think that measuring performance on market indexes will encourage competition among the companies? why, why not?
-Within the financial set of measures, would you prefer your performance to be measured by accounting measures or market measures?
-what influence on your pay will it make if your work is represented by accounting measures or by market measures?
-do you think it would make a difference if RPE's reward is paid to all the entitled people on cash basis only or on various types (e.g shares, holidays, deferred pay,...?

Appendix (B-5): Introduction letter from Cairo University used in the field work in Egypt

CAIRO UNIVERSITY
Faculty of Commerce

Dear Manager:

Kind regards

This is to introduce Miss Afaf Mubarak Mohamed Ali who is an assistant lecturer of accounting at Cairo University- Faculty of Commerce in Bani Suef Branch. She is currently preparing a Ph.D registered under the title "Effects of Relative Performance Evaluation".

The research requires a field work which should be undertaken by the enclosed questionnaire along with exploring the experience of the companies -in the selected sample- regarding the systems of measuring, evaluating and comparing performance. Therefore, the researcher is looking forward to get some feedback from different managerial levels about setting targets; budgets; measuring, evaluating and rewarding performance. She would examine these systems as they are designed and applied and she decided the sample size to include 50 participants from different managerial levels.

The researcher seeks to receive your support and co-operation in this investigation and we would be grateful if you provide such a valuable assistance.

Do accept our greatest respect and appreciation

Dean

Prof. Dr. Mohamed Mahmoud Al-Kashif

3/9/97

Appendix (B-6): Introduction letter from the researcher used in the field work in Egypt

CAIRO UNIVERSITY
Faculty of Commerce

Dear Manager:

Kind regards

Miss Afaf Mubarak Mohamed Ali is an assistant lecturer of accounting at Cairo University- Faculty of Commerce in Bani Suef Branch. She is currently preparing a doctorate research about the role of the accounting system in measuring, evaluating and rewarding performance.

The researcher is looking forward to getting some feedback from you about the accounting system in your company in terms of:

- setting targets
- measuring performance
- evaluating performance
- rewarding performance

The researcher emphases that the data which will be collected will be used for academic purposes only and will not be released -under any circumstances- for any other use, confidentiality will be secured.

The researcher appreciates that you have many demands on your time, but she believes that your assistance would largely enhance the investigation.

The researcher takes this opportunity to express the greatest thankfulness and appreciation for your sincere co-operation, wishing you all the best.

The researcher

Afaf Mubarak Mohamed Ali
3/9/97

Appendix (B-7): Introduction letter from the researcher used in the field work in England

Sheffield Hallam University

Ref: AAli/DC
2 nd Sep. 1998

Direct line: 0114 225 5257
Fax: 0114 225 5331

Re: A questionnaire for collecting data for a Ph.D research

Dear Sir/Madam

This is an investigation for the Ph.D research which I am currently preparing at Sheffield Hallam University. The research is about rewards on performance comparisons. We have come across some information which shows that United Utilities has a rich experience with performance management systems

The enclosed questionnaire has been designed to collect some data about the practice of the above in reality, more specifically about:

-setting targets
-performance measures
-reward system

It is particularly emphasised here that the data will be used for academic purposes only and will not be released- under any circumstances- for any other use. Confidentiality will be secured.

I appreciate that there are many demands on your time, but the more complete response I get, the better I will be able to draw a picture about the practice of these schemes. I have enclosed a postage paid envelope if you would kindly send your reply in.

If you have any queries, please do not hesitate to contact me on the number above.

I do thank you in advance for your concern and look forward to hearing from you.

Best wishes

Yours sincerely

Afaf Ali
Researcher in management accounting

School of Financial Studies and Law
Business and Information Technology Centre
City Campus Sheffield S1 1WB UK
Telephone + 44 (0) 114 225 5555 Fax +44 (0) 114 225 5331

Appendix (C-1) Basic background about Steel company from the internet
****

Source (http://163.121.10.47/PROJECTS/Steel/) in 20/11/97

Name of Project: Megamod Direct Reduction Plant

Location: Alexandria National Iron & Steel Co. S.A.E. (ANSDK) an integrated steel company that is profitable and well managed. It is located at Dikhelia, Alexandria, Egypt.

Background

1- In 1982, ANSDK was incorporated with technical and financial assistance from a Japanese consortium, and the International Finance Corporation (IFC), to meet some of Egypt's needs for steel reinforcing bars (rebars), for the construction industry. It has and continues to benefit from the strong technical support of its Japanese partners, and the consultancy arrangement it has with the British Steel Corporation.

2- The Company was set up under Investment Law 43 of 1974 (later replaced by law 230 of 1989) as a joint venture company among Egyptian public sector industrial and financial companies, a Japanese Consortium composed of Nippon Kokan, Kobe Steel and Toyo Menka Kaisha (renamed Tomen), and the IFC. In 1994, the Company increased its capital to partly finance a major expansion. ANSDK's employees and the IFC subscribed to this capital increase which raised ANSDK's private sector ownership from 13 % to 28 %. Recent share sales by public sector shareholders have further increased private sector participation to around 36%.

3- The Company was originally designed as an integrated rebar plant with a nominal output of 745,000 metric tons per year (tpy). It uses the Midrex Direct Reduction Iron process (DRI), to produce the major portion of its iron needs, with imported iron ore pellets and domestic natural gas as the reducing agent. This coupled with the electric arc furnace, continuous casting and modern bar and rod mills, proved to be the best alternative for Egypt. Indeed, locally available natural gas in nearby Abu Qir field, and the high cost of imported steel scrap: made the DRI route more cost effective than conventional scrap based electric arc furnace steel making. This resulted in an internationally competitive operation with attractive financial returns.

[Image]Project Description

The project entails the increase of production capacity from 1.6 million tpy of DRI, by adding a third Midrex Direct Reduction Plant (MDRP) of 1,000,000 tpy nominal capacity. The project also includes a new water system, a bigger dust collection system, as well as some additional iron ore storage and handling facilities at the mineral jetty. ANSDK will also modify the yard piping for various effluents, the incoming natural gas station, the incoming and back-up electric power facilities and the flare stack.

[Image]Objectives

To shield the Egyptian market from price fluctuations of expensive imported steel scrap, a DRI substitute, and save substantially on Egyptian production cost of rebars & steel products.

[Image]Justification

Market surveys conducted by respected Egyptian and International bodies, have shown that there is an annual increase in demand for steel products in Egypt, that is projected to increase by 5785,000 tpy by year 2005.

This project will enable ANSDK, using its proven competitive advantages, to supply some of this increased demand, by adding another 1,000,000 tpy of DRI. It will increase its production capacity of 1.6 million tpy to 2.6 million tpy of DRI.

[Image]Beneficiaries

Egyptian steel industry, ANSDK, local and regional markets in the Middle East and North Africa.

[Image]Partners: Existing shareholder and public subscription.

[Image]Estimated Cost: U.S. $320 million

[Image]Duration: 5 Years

[Image]Project Status: The study phase is completed.

[Image]Project requires: Equity participation / financing or co-financing.

[Image]Availability of Feasibility Studies: Available

[Image]Sponsor Key Contact

Eng. Ibrahim Salem Mohamadain
Chairman & Managing Director,
ANSDK.

Phone: (203) 4332220 / 4332300 Fax : (203) 4332667

E-mail: Ansdk@ritsec1.com.eg

Postal Address

P.O.Bag Alex - Egypt.

* *

Project No.: 2

Name of Project: **Flat Products**

Location: Under consideration

Background

According to the market study by Egitalic prepared in September 1992, and updated in October 1994, the annual demand of flat steel products was 580,000 tons in 1991, and is projected to reach 1,383,000 tons by the year 2002. This demand includes hot-rolled products, cold rolled products, galvanized products, and tin plates as shown in Table 1.

Table 1

(x1000 tones/y)

Products	Demand Yr. 2002
Hot rolled products	624,000
Cold rolled products	355,000
Galvanized products	128,000
Tin plate	276,000
Total	1,383,000

Products exceeding local consumption can be exported to the neighboring countries of the Middle East. Therefore, the plant must be internationally competitive and capable of producing high quality-products at low cost.

[Image]Project Description

The proposed flat steel product plant, is a modern compact plant that starts with the direct reduction plant as follows

Direct Reduction Plant	Megamod x 1

Steel making plant

Electric arc furnace	120t x 2
Ladle furnace	120t x 2
Continuous slab caster	1 strand x 1

Rolling mill

Hot strip mill	x 1
Pickling fine	x 1
Reverse cold mill	x 1
Combination mill	x 1
Tandem cold mill	x 1
Electrolytic cleaning line	x 1
Annealing furnaces	
Two stand temper mill	x 1

Coating line

Galvanizing line	x 1
Coil preparation line	x 1
Electrolytic tinning line*	x 1

*(to be added at a later stage)

After the running-in period, the capacity of the plant will reach annually one million metric tones of slabs, and about 920,000 mt of finished products. This will consist of hot-rolled coils, cold rolled coils and sheets, and galvanized products.

[Image]Objectives

The objective of the project is to enable ANSDK to become a

titive international producer, of a wide range of high
' low cost flat steel products, to satisfy local and
al requirements.

ıstification

:et the projected increase in demand for flat steel products
Egyptian market and those of neighboring countries, and
ıility of ANSDK to produce these products at competitive
:.

3eneficiaries

ıl market (Egypt).
ıcent markets of North African and Middle Eastern countries.

Partners

ting steel producers, and public subscription.

]Estimated Cost

. $1,170 million.

:]Duration

'ears.

:]Project Status

ıdy stage.

e]Project requires

int venture - Equity participation / Financing or Co-financing
'ransfer of technology.

ge]Availability of Feasibility Studies

:e-feasibility study is available

ge]Sponsor Key Contact

:ng. Ibrahim Salem Mohamadain
:hairman & Managing Director,
ıNSDK

'hone: (203)4332220 / 4332300 Fax : (203)4332667

3-mail: Ansdk@ritsec1.com.eg

Postal Address

P.O.Bag Alex - Egypt.

.EX2 Steel
p://163.121.10.47/PROJECTS/Steel/
ɔject No.: 2

ıme of Project: **Flat Products**

ɔcation: Under consideration

Background

According to the market study by Egitalic prepared in September 1992, and updated in October 1994, the annual demand of flat steel products was 580,000 tons in 1991, and is projected to reach 1,383,000 tons by the year 2002. This demand includes hot-rolled products, cold rolled products, galvanized products, and tin plates as shown in Table 1.

Table 1

(x1000 tones/y)

Products	Demand Yr. 2002
Hot rolled products	624,000
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Total	1,383,000

Products exceeding local consumption can be exported to the neighboring countries of the Middle East. Therefore, the plant must be internationally competitive and capable of producing high quality-products at low cost.

[Image]Project Description

The proposed flat steel product plant, is a modern compact plant that starts with the direct reduction plant as follows

Direct Reduction Plant	Megamod x 1
Steel making plant	
Electric arc furnace	120t x 2
Ladle furnace	120t x 2
Continuous slab caster	1 strand x 1
Rolling mill	
Hot strip mill	x 1
Pickling fine	x 1
Reverse cold mill	x 1
Combination mill	x 1
Tandem cold mill	x 1
Electrolytic cleaning line	x 1
Annealing furnaces	
Two stand temper mill	x 1
Coating line	
Galvanizing line	x 1
Coil preparation line	x 1
Electrolytic tinning line*	x 1

*(to be added at a later stage)

After the running-in period, the capacity of the plant will reach annually one million metric tones of slabs, and about 920,000 mt of finished products. This will consist of hot-rolled coils, cold rolled coils and sheets, and galvanized products.

[Image]Objectives

The objective of the project is to enable ANSDK to become a competitive international producer, of a wide range of high quality low cost flat steel products, to satisfy local and regional requirements.

[Image]Justification

To meet the projected increase in demand for flat steel products in the Egyptian market and those of neighboring countries, and the ability of ANSDK to produce these products at competitive prices.

[Image]Beneficiaries

* Local market (Egypt).
* Adjacent markets of North African and Middle Eastern countries.

[Image]Partners

Existing steel producers, and public subscription.

[Image]Estimated Cost

U.S. $1,170 million.

[Image]Duration

5 Years.

[Image]Project Status

Study stage.

[Image]Project requires

Joint venture - Equity participation / Financing or Co-financing / Transfer of technology.

[Image]Availability of Feasibility Studies

Pre-feasibility study is available

[Image]Sponsor Key Contact

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Appendix (C-2)

A Detailed presentation of analyses of all Egypt questionnaire data

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Data collection by a questionnaire: methods and analysis:

The data collection in Egypt has consisted of doing interviews and distributing a questionnaire.

This chapter will include the following the questionnaire survey in the three companies.

It should be pointed out here that the chapter will confine to presenting the analyses and a separate chapter will be allocated to discussing and interpreting these findings.

The Questionnaire Data

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Measures and Coding:

The coding system for the attitude questions in the questionnaire were on a 5 points Likhart scales range from strongly agrees to strongly disagree. The highest score 5 was allocated to "strongly agree" , 4 for agree, 3 for neutral, 2 for disagree and 1 for strongly disagree. If a question is not answered, it is scored 0. The fact questions were asked to be answered on a yes or no scale. Yes was translated into 2 and no was given 1. Where ranking was sought, the rank was used as the code of the question. The significance level that has been chosen to do the statistical analyses is %95.

A variable has been created to represent "response to RPE" which is the sum of answers about: money and esteem as derives for behaviour and motivating and monitoring as proposed roles of RPE. The reason behind choosing the first two is that Fredrickson 1992 considered them the fuel of employee's response to RPE.

Data Analyses

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This section includes the following points:

* Preparing the data for analysing
* Deciding the analyses to do
* Analysing the data: Descriptive analyses and association and variation analyses

Preparing data for analysis:

The collected data were recorded and a folder has been established for the documents of each company. It included a brief profile about the company, a copy of the answered questionnaires, a complete transcript of the interviews, any internal documents has been given by the company (e.g annual reports, organisational structure).

Deciding the statistical analyses:

Three groups of analytical tools have been considered:

- Descriptive statistics (frequencies, central tendency and variation techniques)
- Correlation, regression, Chi- square and ANOVA analyses

The statistical correlation has been used in this research to explore possible relationships between RPE and the contingents under investigation: the peers, measures and rewards. Correlation techniques are widely used as measurements of the direction and strength of association between pairs of variables. An important point to be recorded here is that, it will be assumed that all correlation's are linear because of the small sample size which might suggest linearity. The correlation technique which has been used is Spearman Rank correlation. The reason behind this choice is that, the data collected represents answers on a 5 points Likahrt scale (i.e the value of any variable here is in fact a "rank" given by the respondent). Three pieces of information are given by this technique: (1) the direction (positive or negative) of the correlation, (2)its strength and (3) the statistical significance of each correlation which enables examining whether the correlation can be accepted or not on the light of the decided confidence interval (which is 95% in this research).

In order to determine whether to accept the correlation level and to classify the various levels of it, the statistics text books refer to "the critical values of correlation" (Becker and Harnett 1987, Lentner 1979) depending on the sample size. Because the sample size of the whole data is: 72 cases, then the critical values of correlation at .05 significance level are:

Below .191 variables are not probable to be correlated.

Between .191 and .393 variables are not unlikely to be correlated (and this will be the first level for accepting a correlation).

Between .393 and .585 variables have a moderate correlation.

Between .585 and .776 variables have strong correlation.

Between .776 and 1 variables have a very strong correlation.

In order to support the analysis, Spearman's correlation was accompanied by a Chi- square test. Chi- square is a designed to test whether or not two variables are independent (Becker and Harnett 1987). The null hypothesis is variables are independent. The test for this hypothesis determines the goodness of fit between a set of observed frequencies and a set of expected frequencies. The observed frequencies are those presented in the cells. The Chi-square program to match a "theoretical distribution" calculates the expected frequencies. Then Chi- square test compares the two frequencies. If the two sets of frequencies are fairly close, then the null hypothesis of independence should be accepted and the vice versa. Chi-square test in SPSS package has many models (Pearson, Liklihood Ratio and Mantel-Haenszel). The latter will be adopted in this research because it is the only Chi - square test for ordinal data (i.e rank data) which is the type of data of this research. Chi -square test in SPSS

Provides these frequencies and the significance level. Again, the resulted significance level will be used to determine whether or not the variables are dependent. If the significance

Building on the result of Spearman test, if it approves a correlation between variables, the analysis is integrated by a regression model. There has been a double objective behind using the regression, first to extract "Multiple R" which indicates the amount of influence which a set of variables practises on the dependent variable. Second: The regression produces the "R square" The Determination Coefficient which describes the percentage of variability in the dependent variable due to the independent variables.

. The regression also produces T test, the significance of T, F and the significance of F (upon which the regression is decided whether to accept or reject on the light of the confidence interval in this research). If the significance of F is < .05, then the regression is significant and Multiple R represents the amount of influence practised by a variable (or a group of variables) on the dependent variable.

The one -way ANOVA test examines hypotheses about two or more population means, for example the response to RPE in the various managerial levels. It focuses on testing variability in data sets (Becker and Harnett 1987). The result is induced by comparing the statistical significance resulted with each ANOVA test and the statistical significance decided for this research (i.e 5%). If the statistical significance of an ANOVA test is < .05, there is a significant difference among the samples (companies or managerial levels) about the variable and the vise vers.

Section One: Descriptive Statistics:

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Various statistical analyses were carried via SPSS, including central tendencies of variables, variability and frequency distribution. Table (6-1) report the responses of 71 participants in the investigation in 3 companies regarding the existence of RPE, the relative significance to peer groups, the preference of financial measures in one hand and both financial and non financial on the other hand, the satisfaction of market measures of performance and the preferable form of reward in the overall sample. Each analysis has been carried out as to companies and managerial levels.

I: Facts: The existence of peers' comparisons, RPE and market measures - by company

The results in table (6-1) shows that:

1. Two companies of the three report performance comparisons to peers but only one builds an RPE scheme (as defined in this research) on them.
2. One company discloses that they held performance comparisons with peers but not use this as basis for rewards.
3. No company records an experience with using market measures to indicate employees' performance.

Table (6-1): Facts: The existence of peers' comparisons, RPE and market measures - by company

Company's name	peers' comparisons	using RPE	using market measures	Total company's respondents
Trade Co	no	no	no	**36**
Dairy Products Co	yes	yes	no	**21**
Steel Co	yes	no	no	**14**

II: Attitudes: Towards RPE, performance measures and reward form - by company

Four descriptive techniques were used to describe the investigated contingents of RPE (targets, measures and reward). These techniques are: (1) mean, (2) standard deviation These measures have been calculated for each company individually and for the whole companies together shown in table (6.2.1) and summarised below:

Table (6-2.1)

Attitudes about RPE, performance measures and reward form - All companies

measure	response to RPE	target difficulty & RPE?	non financial & RPE	market measures & RPE	rewards & RPE
Points of agreeing on*	45.1	57.74	77.5	28.1	64.8
Mean	3.61	3.97	3.85	2.5	3.49
Median	3.5	4.5	4	3	4
Std. Dev.	1.677	3.06	1.137	1.53	1.144
Variance	2.812	9.412	1.29	2.36	1.31
Coefficient of variation %	1.28	.42	2.98	1.05	2.66

* (% of those who agree and those who strongly agree to the total respondents).

1- The first point to be noticed is that, RPE (as measured in this study) has been supported by 45.1% of the total respondents which suggest a tendency to accept RPE as an evaluating and motivating technique.

difficulty (as measured by the sum of difficulty to compete with peers from the same company + region + industry + top 100) was accepted by 57.74% of the respondents comparing to 77.5 % for measuring performance both in financial and non financial measures within an RPE scheme. Nevertheless, only 28.1% preferred the use of market measures in RPE whereas 64.8% agreed that varying the form of reward would enhance the use of RPE. Data are homogenous for all variables where the coefficient of variance [(average/ variance)* 100%] is less than 10% for all variables.

The summary of this main points is: The respondents -on average- accepted RPE. Respondents provided different approval for the components of RPE where they firstly non financial performance measures then varying the form of reward and target difficulty. Respondents disapprove using market measures in RPE.

2- Regarding the roles of RPE, 67.6% of respondents agreed that RPE could motivate but 47.9% saw it as a monitoring tool. The objectives which respondent sought from work were: to gain money (74.7%), 31 % to do creative work and 19.7% to gain esteem as the following table details:

Table (6.2.2): The roles of RPE and the behaviour's derives

measure	Roles of RPE: motivating	monitoring	Objectives from work: money	esteem	creativity
Points of agreeing on*:	67.6	47.9	74.7	19.7	31
Mean	3.5352	3.2817	3.5634	2.9821	2.9333
Median	3.5352	3.0000	4.0000	3.0000	3.0000
Std. Dev.	1.2169	3.2817	1.3388	.7259	.9892
Variance	1.4809	1.8052	1.7924	.5269	.9785
Coefficient of variation %	2.388	1.8181	2.09	5.657	2.997

* (% of number of respondents who agree and strongly agree to total number of response)

The general conclusion of this point is: Employees would respond to RPE because they accept it as a motivating tool (but not a monitoring technique) through which they seek to make money from competing with others rather than to gain esteem or creativity.

Factors to be considered with RPE:

The Manager of Purchasing Farming Machines in **Trade** company recorded that, some factors should be examined when considering RPE schemes such as: achieving the department's objectives, measuring the various aspects of performance (e.g quality, time, co-operation). Also the Customers' Accounts Manager considered, companies should have control upon their decisions (i.e the decisions should be intrinsic), they should not be imposed from any external forces upon the firm. Middle and lower management paid concern to the operational side of RPE as the Exporting for Local Suppliers' Officer issues like similarity in companies' operations, location, financial situations and the employees' jobs, work load, experience and work environment (participation, ...etc) should be investigated. The Inspection Officer and Foreign Suppliers' Administrator, who participated in the questionnaire enquiry, recommended that RPE be held intrafirm among departments and divisions because they would be sharing the same work environment. However, The Follow-up Assistant Manager raised some suspicion about RPE as he argued firstly, the whole point of benchmarking and competing with other companies applied on the financially healthy companies not those who struggled to overcome losses and have difficulty achieving their own targets. Secondly, in operational terms, how could a firm get information about the performance of employees different in other companies? How could similarity in the bases for measuring be secured while each company used different measures to monitor that performance. That was not the case for top management's because the company's performance could be taken as a surrogate for top management's performance. Similarity in measuring companies' performances could be secured by a minimum compliance to the professional standards. Therefore, RPE -by definition- seemed applicable to top management only.

3- There have been further enquiries about each one of the components of RPE. As an introductory question about target difficulty, attitudes to compete with the best or the average of the comparison group was raised then which peers were preferred to compete with [details in table (6.2.3)].

Table (6.2.3) Target's difficulty and RPE

measure	scaling targets:[1]		comparing to:		preferred per group:			
	one	many	best	average	same company	industry	region	top 100
agreeing on the item*	12.7	40.8	45.1	66.2	62	39.4	46.5	36.6
Mean	1.197	.6056	3.352	3.0282	3.4366	2.5070	3.0000	2.5352
Median	1.000	.0000	4.000	3.0000	4.0000	3.0000	3.0000	3.0000
Std. Dev.	.7676	.7067	2.007	1.6731	1.5922	1.9189	1.6388	1.7634
Variance	.5891	.4994	4.031	2.7992	2.5352	3.6821	2.6857	3.1095
Coefficient of Variation	2.032	1.21	.831	1.081	1.355	.681	1.11	.815

* (% of number of respondents who agree and strongly agree to total number of response)

The survey showed that 45.1% of the respondents preferred to be compared to the best among the reference group comparing to 66.2% for the average. Data are homogenous for all variables. This gives an early speculation that the respondents were cautious when their rewards were tied to their comparative performance. This was supported by another evidence in the same line that is choosing peers. For all participants in the three Egyptian companies together, 62% preferred a comparison group from the same company, 46.5% for a comparison group from the same industry, 39.4% for a group from the same region and 36.6 % for a group of competitors from the top 100 company nation- wide.

The order of preferring peer groups are: peers from the same company- peers from the same industry - peers from the same region and peers from the top 100 company in the country. ANOVA test shows a significant difference among the three companies regarding preferring peers from the same region and from top 100 (at confidence level 95%). The frequency of those peers in each company showed below:

[1] This was a "tick" question, if the respondent chooses "one target" he/she ticks it and this is coded 1 and the same for scale of targets and if any/ all of them are not answered this coded 0.

Preferring peers from the same region and top 100

the peer group	Trade co.	Dairy co.	Steel co.
peers from the same region	65.6	14.3	35.7
peers from the top 100 company	38.9	19.1	57

Trade respondents provide the biggest acceptance for peers from the same region because of the importance which they place on the location and other retailers who work in the same geographical area. This reasons did not exist for Dairy and Steel. On the other hand, peers from top 100 company nation-wide were of appeal to Steel participants only because Steel was not only among the top companies in Egypt but number "1" in the Middle East in producing Steel and alone captured 50% of the local supply of steel and iron products in Egypt.

The following table presents the degree of difficulty which the participants attached to each peer group:

Peer group	Peers from the same company	Peers from the same region	Peers from the same industry	Peers from top 100 companies
Peers best described as	Easy attainable 47.9 %	Easy or difficult but attainable 25.4%	Difficult but attainable 42.3%	extremely difficult and barely attainable or too difficult and unfair 21.1%

For all Egypt data, 47.9% of the respondents classified competing with peers from the same company as "easy attainable target" whereas competing with peers from the same region was described as equally (25.4%) easy attainable or difficult but attainable. Peers from the same industry was best described as difficult but attainable target by 42.3% while peers from the top 100 companies were considered equally (21.1%) extremely difficult and barely attainable or too difficult and unfair. ANOVA test for variance showed a significant difference among the three companies in the degree of difficulty which was seen of competing with peers from the same region only. The frequency reveals that the participants of Trade classified competing with peers from the same region as "difficult but attainable" while participants of both Dairy and Steel considered it "too difficult and unfair".

Participants preferred to compete with peers from the same company because they saw that as an easy attainable target and with peers from the same industry which was classified as difficult but attainable target. Competing with peers from the same region was the last preferable peers and was ranked as either easy or difficult but attainable.

4- The second item in the RPE technique which has been examined as a contingent on the perception to the technique is the performance measurements, results shown in table (6.2.4). The issues that have been explored here are:

- preferring financial measures only vs. financial and non financial measures,
- the features which are preferred to be in the performance indicators,
- whether a given samples of non financial measures would be welcomed within an RPE system and
- the preferable time span of measures.

4.1- Regarding the respondents' acceptance of the financial and non financial measures the survey indicates that 67.6% approved the financial indicators only comparing to 77.5% approved a combined system of both financial and non financial indicators to measure their performance. The mean scored 3.66 for financial measures and 3.85 for non financial measures and an equal median of 4 "which is a the code of "agree" resulted. Data were homogenous for the two variables. ANOVA test for differences showed no significant differences among the three companies regarding these two variables.

4.2- Regarding the desirable features of the performance measures, being accurate was the most important feature supported by 69% comparing to 47.9% for controllable, 42.3% for comprehensive and for being time related. Whether the financial measures enjoy any/ these features more, less or the same as the non financial measures has been explored by correlation tools later.

4.3- The next item in the analysis was whether employees would prefer their performance to be measured by one or more of a given set of non financial measures. For the whole sample, innovation was supported by 97.2 in the first place followed by customer service with 90.1%, achieving budget 78.9%, developing new markets 66.2%, quality 63.4%, making a good use of the recourses 57.7% and finally reducing costs 35.2%. The ranking of those measures (in terms of respondents' preference) is:

Innovation - customer service- achieving budget - developing new markets- quality - good use of the resources- reducing cost.

ANOVA shows a significant difference between the respondents of three companies only in preferring making a good use of the resources (at 95%). The frequencies indicate that 85% of the participants of Steel preferred making a good use of resources to be used to measure their performance, comparing to 61% of participants of Trade and only 33% of participants of Dairy.

4.5- As a concluding inquiry about the performance measures and their impact on RPE, the participants were asked whether using non financial measures in addition to the financial measures could enhance RPE system, 71.9% answered that it could.

The conclusion of investigating the performance measures and RPE shows that: Under RPE financial measures received an equal approval from respondents (70%) as a combined system of financial and non financial measures. Accuracy was the most desirable feature in the performance measures. Innovation and customer service were the most preferable measures. There was no dominating preferable time span of the measures (semi annually and quarterly measures received equal support 32.8%). The use of non financial measures in addition to the financial was thoughts by respondents to enhance RPE.

5- The securities market measures have been examined as a specific type of financial measures. Table (6.2.5) below presents the descriptive of the inquiry about this item . Regarding the use of market measures to indicate the employees' performance, 5.6% of the total respondents reported that they had an experience with market measures. There was a low degree of satisfaction of these measures (19.7% of the whole sample). The reason that has been tested as a potential cause of this dissatisfaction was "uncontrollability". In spite of the criticisms which were oriented to the accounting measures in the literature (Kapaln 1984, Ezzaml 1986, Emmanuel 1990 ,...etc), 62% of the respondents recorded that the accounting measures were controllable comparing to 28.1 % for market measures. Also 35.2% of respondents agreed that market measures might enhance RPE. Data are homogenous for all variables where the coefficient of variance [(average/ variance)* 100%] was less than 10% for all variables.

Table (6.2.5): RPE and the market measures

measure	Fact: use market measures	Satisfaction of market measures	Controllability over measures accounting m ,	market m	RPE and market measures
points of agreeing	5.6%	19.7%	62%	28.1 %	35.2%
Mean	1.19	2.28	3.46	2.53	3.04
Median	1	2	4	3	3
Std. Dev.	.476	1.32	1.27	1.53	1.23
Variance	.226	1.7	1.6	2.36	1.72
Coefficient of Variation	5.2	1.34	2.16	1.07	1.76

6- The last item in the survey of the components of RPE is how the reward should be paid.

Table (6.2.6) provides descriptive of these points.

Table (6.2.6) RPE and the form of reward

measure	Preferred form of rewards under RPE: cash	shares	post-retirement pay	holiday	work conditions	RPE& varying the form of rewards
approval	81.7	49.3	38	46.5	40.8	64.8
Mean	4.01	2.85	2.45	3.014	4.08	3.49
Median	4	3	3	3	3	4
Std. Dev.	1.31	1.63	1.68	1.57	1.918	.135
Variance	1.72	2.66	2.85	2.47	3.68	1.31
Coefficient of Variation	2.33	1.07	.85	1.22	1.108	2.66

There was a dominating preference for receiving RPE rewards in cash 81.7%, followed by 49.3% for shares, 46.5% for holiday, 40.8% work conditions and post retirement pay 38 %. The figure below highlight the position of each item to the others. 64.8% of respondents thought that varying the form reward might encourage the response to RPE. Data are homogenous for all variables.

Section Two: Association and Variation Statistics

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This section will present the details of statistical analyses that have been undertaken to trace the association among the variables and the variation among the companies and the managerial levels. It should be noticed that the analyses will be carried out on the whole sample of data. Also, the presentation will start from the correlation, if evident, the regression will draw the shape of the relationship among the variables. Following that, one - way ANOVA will be used to test whether there are significant differences among the companies and the managerial levels regarding each variable. Chi- square will be used to support the former test.

<u>Applying These Tests on the Data:</u>

Presenting the various tests undertaken on data will follow the line of inquiry of this research. The arguments will be divided into:

I: The perspective of RPE:

This will include test for association between goals from work, RPE and managerial levels.

II: The contingents of RPE:

This will examine the arguments about target level in a group, the performance measures in another group, the market measures as a special case of measures in a third group and finally the reward form in a group.

Part (2-1): The perspectives of RPE

Correlation:

The test includes studying the correlation between RPE and goals from work (getting money, esteem, practising creativity) appears in table (6.3.1). It should be noticed that, correlation should be interpreted as positive unless otherwise specified and the confidence level is 95% unless otherwise indicated. According to statistics' books (e.g Becker and Harnett 1987, Lentner 1979 the critical values of correlation at .05 significance level for a sample of 72 cases is .191. Therefore, the following classification is drawn to identify the correlation coefficient for the whole sample:

Below .191 variables are not probable to be correlated.

Between .191 and .393 variables are not unlikely to be correlated (and this will be the first level for accepting a correlation).

Between .393 and .585 variables have a moderate correlation.

Between .585 and .776 variables have strong correlation.

Between .776 and 1 variables have a very strong correlation.

For the individual companies, the critical values of correlation are: in Trade company (with number of participants in the inquiry = 36) is .279. That is, a correlation below .279 is unlikely at confidence level 95%. For the Dairy products company, the critical value for a number of participants = 21 is: .368, any correlation coefficient below this would be unlikely at confidence level 95%. The Steel company participates by 14 respondents in the survey and this makes the critical value .425

Regression:

Expanding the test about RPE and its potentials, because correlation has proved a relationship between RPE and objectives from work and with behaviour derives. The outputs of the regression model includes the following:

Multiple R: measures the influence of the set of independent variables on the deponent variable.

R Square: is the determination coefficient which shows the % of change in the dependent variable due to a unit change in the independent set of variables.

B: is the regression coefficient which predicts the amount (and direction) of change in the dependent variable due to a unit of change in the independent variable.

Beta: can be used to classify the independent variables according to each's influence on the dependent variable.

Significance of F: points at the model's fit. If F is < .05, the regression is significance at 95% confidence level and the vice versa.

Significance of T: provides the significance of each independent variable individually if > .05 and the vice versa.

Correlation and regression of RPE and its perspective

Table (6.3.1) Spearman coefficient for RPE and objectives from work

Variable	Correlation with RPE
Objectives from work:	
money	**moderate sig.**
esteem	weak non sig.
creativity	weak non sig.
Ownership/sector	weak non sig.
managerial level	weak non sig.

The correlation shows that for the whole sample, it was absolutely sure (p=.000) that RPE was would trigger the employees' desire to gain money (but not esteem or creativity). It seems that the mechanism of RPE and competing with others, feeds only the inclination to gain money but was not approved to enhance the employees' tendency to do creative work. In other words, employees are not likely to compete with others -under RPE- to do creative work or to gain esteem but they would compete with others to gain money. For the whole data, RPE was not significantly (at 95% nor at 90%) correlated to the type of sector to which companies belonged (e.g private or public sector) or to the managerial level. The regression of money on RPE for the whole data was significant.

Regression coefficients of RPE and money

The regression's parameters	
RPE and objectives from work: money	
B Beta	.739 .502
Multiple R	.502
R square	.252
significance of F	.000

The table above shows that 73% of the change of RPE is due to the change of money as an objective from work. The model is absolutely significant.

ANOVA test of differences shows among managerial levels concerning creativity as objectives from work. The table below presents the frequencies, which shows these differences.

Table (6.3.4)

Frequencies of the creativity and the managerial levels

variable	Position "1"	"2"	"3"
Managerial levels Top & Middle management	creativity	money	esteem
Division management & Shop floor	money	esteem	creativity

The table indicates that for the whole data, participants from top management and middle management placed creativity in the first position then money and esteem. The lower managerial levels including division managers and shop floor workers put money in the first place followed by esteem and creativity. It should be highlighted here that the distribution of the number of participants from each managerial level and the organisational culture have probably caused this result. To clarify, the following table reviews the distribution of the number of participants from each managerial level in each company.

the company	*% of number of participants in each managerial level to total participants from the company*			
	shop floor	division manager	department manager	senior management
Trade	19.4	44.4	22.2	11.1
Dairy	23.8	47.6	14.2	14.2
Steel	35.7	42.8	21.4	0

The companies which encouraged creativity were Dairy and Steel. As table (6-3-4) earlier shows, the participants from middle management gave a full support for creativity as the first objective from work. However, those represented the biggest percentage of participants in the three companies. Following that, the second biggest number of participants in Dairy and Steel came from the shop floor level and those ranked creativity in the third position (after money and esteem).

The summary of RPE's potential is: there was a significant correlation between RPE and money. For the whole data, there is no difference among sectors, companies or managerial levels regarding RPE or objectives from work. The only exception is a difference among managerial levels regarding creativity where it was the first objective from work for top management, the second for middle and division management and the third for the shop floor workers.

Part (2-2) The contingents of RPE

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First: RPE Target's difficulty and different peers

The investigation started by checking correlation between the response to RPE, target difficulty variable and the various peers. Table (6.3.1) below shows that, for the whole data and the individual companies, there is a significant correlation between target difficulty and RPE in one hand and RPE and all peer groups on the other hand. The correlation results for the whole sample and the individual companies are presented in the table below.

Table (6.3.1) Spearman Coefficients of RPE and various peers and difficulty of those peers

variable	Correlation coefficiecnts	correlation for the whole data
Correlation between RPE and the different peers: peers from the same company	.23**	**likely significant**
peers from the same region	.25**	**likely significant**
peers from the same industry	.22**	**likely significant**
peers from top 100 companies	.11	weak non sig.

RPE & target's difficulty ✱	.24**	**likely significant**
Difficulty to compete with peers from the same company	.35**	**moderate significant**
Difficulty to compete with peers from the same region	.21	likely significant*
Difficulty to compete with peers from the same industry	.17	weak non sig.
Difficulty to compete peers from top 100 companies	.05	weak non sig.

✱ target difficult is measured by the sum of the responses about difficulty to compete with the different peers under investigation.
** p=.05
* p=.10

A primary observation here is, in contrast to the literature about target's difficulty and the arguments of this research the correlation shows that, peers from the same region (then peers from the same company) had the biggest correlation coefficient and the most significant correlation. That influence might have been shifted to the whole sample from Trade company (where peers from the same company and the same region are the most preferable peers and the participants of Trade are 51% of the total respondents).

Regression:

The multiple regression is going to be used to provide the shape of the relationship and its determents between RPE and the preferable peers and their difficulty respectively. Table (6.3.2) provides the regression outputs.

Table (6.3.2) Regression coefficients between RPE and the preferable peers

Variable	B	Beta	significance of T	Classification
Peers:				
from the same company	.207	.186	.136	non significant individual impact
from the same region	.201	.228	.06	significant individual impact*
from the same industry	.007	.077	.53	non significant individual impact
Multiple R .33				
R square .11				
significance of F .05			regression is significant	

* sig. at p=.10

The regression model predicts that peers were responsible for 33% of the change in RPE and that peers from the same region was the group which led and caused this effect for the whole peers on RPE. The model was statistically significant at p= .05. It should be mentioned here that including "peers from the top 100 company" -which was non significantly correlated to RPE- turned the regression model to be non significant at p=.05.

The impact of the set of variables of difficulty to compete with peers on RPE along with the impact of the individual items in that set is presented in the following regression:

Table (6.3.3) Regression of difficulty of various peers on RPE

Variable	B	Beta	significance of T	Classification
difficulty to compete with peers from the same company	.74	.41	.002	significance impact
Multiple R	.418			
R square	.175			
significance of F	.002			significant impact of the whole group

The table shows that the difficulty which respondents associated to compete with peers from the same company was responsible for 74% of the changes in RPE. That was a significant impact and whenever this variable changes by one unit, this causes change 41% in RPE. It should be noticed that this regression is about the "difficulty to compete with peers from the same company only" which was the only type of difficulty that was significantly correlated to RPE. When the regression was applied to the difficulties of four types of peers, the regression model was found non significant.

On the other hand, ANOVA test for the whole data provides no evidence on significant differences among the managerial levels regarding the different peers under investigation nor the difficulty related to those peers at confidence level of 95%. The only exception was that there was differences regarding the difficulty to compare to peers from the same region at 90%. Also, there are significant differences among companies regarding preferring peers from the same region, top 100 and difficulty to compete with peers from the same region. Table (6.3.4) below shows the frequencies.

Table (6.3.4) Frequencies of peers and difficulties- By company

variable	Frequency* Trade	Dairy	Steel
comparing with peers from the same region	65.6	14.3	35.7
comparing to peers from the top 100 companies	38.9	19.1	57
☆ difficulty to compete with peers from the same region	difficult but attainable	too difficult and unfair	too difficult and unfair

*% of those who agree and strongly agree to total respondents in the company.

☆ as described by respondents

Reasons for these differences have been discussed in chapter 6 (Cases of the individual companies).

The conclusion about RPE and peers and the difficulty associated to each of them can be summarised as:

There was found a significant correlation between RPE and prefering to be compared to peers from the same company, region and industry. Also RPE was found signifcantly correlated to the difficulty which the respondents allocated to peers from the same region. There are some differences between companies -but not managerial levels- regarding these issues.

Second: RPE and the performance measurements

Spearman correlation shows that there was a significant correlation between RPE and the financial measures of performance and non financial measures. This correlation is stronger with the financial measures of performance. The observations about market and accounting measures will be handled in a following section in this report.

Table (6.3.6) Spearman correlation between RPE & the financial, non financial measures, accounting and market measures

variable	correlation coefficients with RPE	classification of correlation with RPE
financial measures	**.34****	**moderate significant**
non financial measures	**.22****	**likely significant**

** p= .05

The data collected by interviews in Trade company suggest that financial measures (accounting only) were the sole measures in use currently in the company. The questionnaire data of Trade showed a higher preference to financial measures. That might have impacted the whole sample because the participants of Trade were almost half of the total participants. Whereas both the practice and the employees' attitude in Dairy and Steel - as explored in the interviews- showed that both the financial (basically accounting and some market types) and the non financial measures were used and the latter were particularly welcomed.

In order to review the relationship of the performance measures on RPE, the regression model has been applied. Table (6.3.7) provides the details of the regression.

Table (6.3.7) The outputs of the regression of the performance measures on RPE for the whole data

variable	B	Beta	significance of T	Classification
Financial measures	.53	.36	.003	significant impact
non Financial measures	.26	.18	.123	non significant impact
Multiple R	.44			
R Square	.20			
Significance of F	.001		strongly significant	

The regression shows that the performance measures group of variables was responsible for 44% of the changes in RPE and that was a significant impact. Meanwhile, the individual variables within the group practised different roles. The financial measures made the biggest contribution (36% of the group's impact) and the only contribution which was individually significant. Non financial measures had a lower portion (18%) and non significant impact on RPE. The overall effect of the whole model was significant at p= .05.

One- way ANOVA test showed no differences among managerial levels or companies regarding their preference financial and non financial measures or regarding the respondents' view in controllability over market measures.

RPE and the features of performance measures

In order to deepen our understanding around the impact of the performance measures on RPE, some features of performance measures have been examined with relation to financial measures. These features included: comprehensiveness, accuracy, controllability and time related. Following is the correlation table between these features and the financial measures in one hand and between these features and RPE on the other hand.

Table (6.3.9)

Spearman correlation between RPE and the features of performance measures

variable	correlation with measures financial	correlation with RPE
accuracy	**moderate significant**	**moderate significant**
comprehensiveness	negative weak, non significant	weak, non significant
controllability	**likely significant**	**likely significant**
time related	likely sig.*	likely sig.*

* p=.10

The correlation suggests that preferring financial performance measures had significant, likely to moderate association to their being accurate, controllable and time related. The regression predicts a significant model for this relationship. The same strength and direction of the associations with these features extended to RPE. RPE was found significantly correlated to the financial measures' being accurate, controllable and time related and the regression of these relationships was absolutely significant.

It should also be mentioned that Spearman correlation showed a likely and significant correlation between financial and non financial measures.

ANOVA shows no significant differences among companies regarding any of these features. Nevertheless, there was a significant difference among managerial levels regarding controllability of the measurements only. The frequencies showed that 17% of the lower management participants preferred controllability as a feature in performance measures comparing to 46% of division managers, 78% of departments, managers and 62% of the senior management in the whole sample.

The conclusion of the investigation about the measurements under RPE could be:

There was a significant likely correlation between using financial measures and RPE, stronger for the non financial measures. Both types of measures together were responsible for a moderate but very significant portion of the changes in RPE. There were no differences among companies or managerial levels regarding the preference of financial and non financial measures. Accuracy and controllability are the most preferable features to exist in the measurements.

RPE and a sample of non financial measures:

The following table provides the correlation between RPE and some non financial measures. The participants in the inquiry were asked to disclose to what extent the existence of these measures in the RPE system would improve it.

Table (6.3.13) Spearman coefficient between RPE and some non financial measures

Variable	correlation for the whole data
innovation	**likely, significant**
customer services	unlikely and non sig.
achieving budget	**likely, significant**
quality	unlikely and non sig.
developing new markets	unlikely and non sig.
good use of the resources	**likely, significant**
reduce cost	**moderate significant**

For the whole data, the correlation test showed significant association between RPE and cost reduction then making a good use of resources, innovation and achieving budget. It should be noticed that three of these four measures represented financial type of measures while only innovation was non financial. The regression of these sample of measures -led by "making a good use of resources- had a significant impact on RPE.

Table (6.3.10) The outputs of the regression of a sample of performance measures on RPE

variable	B	Beta	significance of T	Classification
achieving budget	.134	.149	.229	non significant influence
good use of the resources	.186	.261	.041	significant influence
reduce cost	.076	.096	.468	non significant influence
innovation	.311	.149	.215	non significant influence
Multiple R	.44			
R Square	.19			
Significance of F .009			very significant influence for the group	

As ANOVA test predicted that at 95% confidence interval, there were no significant differences among managerial levels or companies regarding the sample of measures under investigation but for making a good use of the resources. Following is a presentation of the frequencies of supporting that measure in each of the three companies where the highest support for measuring "good use of the resources" is given by the respondents from Steel company, the second largest support is in Trade then Dairy.

company	Trade	Dairy	Steel
% of support	61.1	33.3	85.7

RPE and market measures:

Fact:

The question about whether or not companies use -in reality- stock market measures to assess employees' performance had received a negative answer from most of the subjects. 5.7% recorded that they actually had an experience with market measures but only 19.7% of the whole sample reported they would be satisfied with them and 28% of the total respondents approved that such measures would be controllable.

As the argument about the impact of using market measures on the employees' response to RPE was founded on the lack of controllability in the literature (Antel and Smith 1987) the correlation was used to test this proposition. This will be done compared to controllability over accounting measures. Table (6.3.17) presents the correlation coefficients.

Table (3.6.17) Spearman coefficients of correlation between RPE, market & accounting measures and controllability- the whole data

variable	classification of correlation with satisfaction with market measures	classification of correlation with RPE
fact of using market measures	weak, non significant	weak, non significant
measures' controllability	likely significant*	**moderate, absolutely significant****
accounting measures' controllability	very weak, non significant	**moderate significant****
market measures controllability	weak, non significant	weak, non significant
satisfaction of market measures		negative weak, non significant

** p=.05 * p= .10

The following observations could be made:

(1) There was a weak, unlikely and non significant correlation between the fact of using market measures and the satisfaction which the employees might hold for these measures. In other words, the positive correlation coefficient of this relationship suggested that the more employees were satisfied with market measures, the more these measures were used, but the lack of significance calls for genralising that there was a weak evidence on that in the data.

(2) It was probable (at confidence level 90%) that a correlation might exist between employees' satisfaction of market measures and their general attitude towards measures controllability. That is, it was likely that employees might feel satisfied with market measures because in general they were concerned with performance measures to be controllable. Chi- square test supported this association as well.

(3) The weak and non significant correlation coefficient between market measures' controllability and the satisfaction which the employees might perceive towards the market measures, prevents from claiming that the more controllable market measures were, the more employees could feel satisfied with these measures. The latter point was indicated by the positive correlation coefficient.

This unexpected result should be view on the light of the number of supporters from each managerial level. Market measures' controllability has been agreed on by 28.1% of the whole sample, confronted by 19.7% disapproval, 33.3% were neutral and 18.3% did not answer. The following table presents the % of participants in each level (to total participants of the level) who were satisfied with stock market measures and those who saw such measures, controllable.

Managerial level	% satisfied with market measures	% saw market measures controllable	total number of participants in this level
shop floor	5.8	11.7	17
division manager	31.2	31.2	32
department director	7.1	42.8	14
senior management	25	25	8
total number of participants	71		

The table shows that 31.2 % of participants in the division managers level (comparing to 25% of senior management) were satisfied with stock market measures and consistently agreed they were controllable. The trouble appeared in the shop floor level and the directors level, 5.8% of the shop floor participants (comparing to 7.1 of directors) were satisfied with stock market measures, nevertheless, only11.7% of them (comparing to 42.8% of directors) saw these measures were controllable. This would probably suggest that the majority of the shop floor participants and directors were dissatisfied with market measures for reasons other than lack of controllability.

(4) There was no significant correlation between RPE and satisfaction with market measures or between the fact of using market measures and market measures controllability.

In order to follow the shape of the relationship between: RPE and accounting measures controllability the regression has been made as shown in table (6.3.18).

Table (6.3.18) Regression outputs of RPE and accounting measures controllability

variable	B	Beta	significance of T	Classification
accounting measures controllability	.34	.27	.02	significant impact
Multiple R	.27			
R Square	.07			
Significance of F		.02		significant impact

Regression predicts that accounting measures' controllability is responsible for 34% of the change in RPE and that this is significant at confidence level 95%. It should be noticed that when controllability of market measures was included in the regression -in addition to controllability of accounting measures- the model was still significant due to a significant influence from the accounting measures' controllability only.

ANOVA showed that, there were significant differences among managerial levels -or companies- regarding satisfaction with market measure, controllability over accounting or market measure. The only exception that ANOVA pointed at, was a significant difference regarding their participants' view of controllability over accounting measures only. The following table indicates these differences in terms of frequencies.

Frequencies of participants' controllability over accounting measures in the three companies

variable	Frequencies of agreeing in:		
	Trade	Dairy	Steel
controllability over accounting measures.	69.4	42.9	71.4

*% of those who agree and strongly agree to total respondents in the company.

The high support from Trade respondents was consistent with the participants' attitude and experience which favored accounting measures -as detailed in chapter 6- as an influence of the state on the company. Also the company was committed to apply what was called "The Unified Accounting System" in book keeping and financial reporting. Steel's respondents reported that they should keep a balance between the quality and specifications of the production and the cost of that product as detailed in chapter 6.

Spearman correlation showed no significant correlation between preferring a/specific peer group and controlling accounting or market measures.

The conclusion of the inquiry about the effect of using market measures and RPE is:

There was no significant correlation between RPE and the fact of using market measures, market measures' controllability or satisfaction with market measures. The significant association exists between RPE and accounting measures' controllability.

Third: RPE and the reward form:

The last argument this research was about the/impact of varying the reward forms on the response to RPE. Spearman correlation proved that, among the various forms of reward, there is a possible significant correlation between RPE and shares. Tables (6.3.21) summarise the correlation coefficients.

Table (6.3.21) Spearman coefficient of RPE and various forms of rewards

variable	correlation for whole data
cash	**moderate significant****
shares	**likely significant****
post retirement benefits	likely significant*
holiday	weak non significant
work conditions	**likely significant****

** p =.05 * p= .10

The correlation shows a significant possible correlation between RPE and paying the reward in cash, shares or better work condition. The regression shows that the group of rewards in cash, shares, post retirement benefits, holiday and work conditions could have a significant impact on RPE as detailed in the following table:

Table (6.3.22) The regression of various rewards on RPE

variable	B	Beta	significance of T	Classification
rewards in cash	.25	.192	.126	non significant impact
rewards in shares	.126	.121	.398	non significant impact
post retirement benefits	.162	.164	.196	non significant impact
holiday	.015	.015	.912	non significant impact
better work conditions	.197	.227	.059	significant impact
Multiple R			.45	
R Square			.20	
Significance of F			.01	significant impact

ANOVA showed no differences managerial levels regarding the various forms. However, there were some significant differences among companies in participants' preferring shares, post retirement benefits and holidays. The following table shows the frequencies which indicate these differences:

Variable	% of number of respondents who agree to total respondents of the company: Trade	Dairy	Steel
RPE rewards: in shares	38.9	52.4	71.4
post retirement benefits	25	52.4	50
holiday	30.6	76.7	67.1

The conclusion of the argument about varying the form of reward and the response to RPE is:

There was a possible positive correlation between RPE and paying the reward in cash, shares and work conditions. The reward group had a significant impact at confidence level 95%. There were differences among companies (but not managerial levels) regarding shares, post retirement benefits and holidays.

Varying the form of reward and the response to RPE:
The questionnaire contained a concluding question about whether or not varying the form of reward will encourage RPE. The frequencies of answering this question showed that 64.8% of the total respondents supported the argument and the median is 3.4 (which just departed the neutral position moving towards the agree position). No differences could be identified by ANOVA between the managerial levels or the companies regarding this argument.
The conclusion of this point is: There is a general agreement among companies and managerial levels that varying the form of paying rewards would enhance RPE.

Appendix (C-3)

Analysis of the interview's data about the control system

in the three Egyptian companies

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The aim of this section, is to report, analysis and commentary on the control system in the three Egyptian companies as extracted from the interview data. A comparison line of analysis will be pursued, therefore, what is similar, dissimilar in the companies' patterns, experiences and rationales will be investigated.

Part One: The control system

I: Planning

A degree of similarity could be recognised among the three companies in setting targets. The similarity points could be summarised in:

- employees participation in planning
- the planning process
- modifying the budget
- perception of target in terms of difficulty
- using the budget for planning and motivating with different tools

However, A number of dissimilarity aspects in planning could also be marked such as:

- setting targets in financial and non financial terms,
- commitment to the target's figure,
- who is leading the budget and who follows up its implementation.

These points will be detailed below.

Similarity in Planning Practices:

Employees participation in planning:

It was a common practice by the three companies that different departments provided estimations about their future performance. Although that was the general rule, the degree to which the various levels and departments participated, differed in each company. Each company has its own policies and guidelines with relation to how much participation is practised. In Trade the Follow-up manager stated that participation was restricted by the rules of running public sector and the overall goals which the parent company set to them. The managing director of Dairy indicated that the building a plan depended largely on the staff participation especially with new proposals. In Steel, the head of Galvanisation division in the Steel company reported:

> I participate in setting targets through determining the existing capacities in the factory. The different departments usually give estimation of the maximum output they can achieve. For example, if senior management knows that the present utilisation of the factories is 90%, they ask us: what are the opportunities of increasing this ratio to 95% and what investments would be needed. We study and investigate possibilities such as: can we rise the operation ratio or the performance, the efficiency, ..etc and a sort of survey and analysis take place.

Modifying the plan:

The three companies shared the practice of revising the plan semi- annually on the light of their actual performance in the first half of it and the current circumstances. The new target figures guided the performance in the second half of the fiscal year.

Perception of target in terms of difficulty:

Participants from the three company reported their satisfaction with the level of difficulty of the targets set in their companies (with a reservation in Trade). The head of Galvanising division in Steel showed an attitude of accepting risk by accepting high levels of targets but he did not describe them as "too difficult or unfair" but he stated:

> I do not remember that we ever had a target which we felt disappointed by, or we felt it is too difficult to attain. Sometimes we have really tough targets, difficult yes, but we do not feel it is hopeless. Instead, we say, OK, we will desperately try and will see by 31 Dec. (the close of the financial year) what we achieved. Then the figure usually is not at the reasonable level, it is very higher and this is natural. If it is a "reasonable" figure, this means you can do it, so why it will be a target.

The managing director in Steel company highlighted another point in handling targets difficulty:

> We pay due attention to the "fairness" of the objective and the main guarantee for it is via employees' participation in setting estimations. That is, the objective stems from the individuals who will take the responsibility of achieving it so they commit themselves to it.

However, the importing officer in Trade company argued that:

> I do not think there is a huge difficulty in the planned targets but this does not mean that they are surely achievable. In fact these targets need a huge effort to be achieved given the problems we have in the public sector.

Using the budget for planning and motivating with different tools

While the three companies used the budget basically and firstly for planning purposes, they also used it as a motivational tool in different ways. In Trade and Dairy (as the Follow-up Manager in Trade and the Marketing Manager in Dairy) indicated, two levels of budgets are planned: the most likely achievable one was used for planning purposes. That plan was risen by 20% and used for motivating purposes. The idea in the two companies was to challenge the employees and to secure the attainability of the most likely attainable budget.

Dissimilarities in Planning Practices:

Different corporate objectives

The three companies have different corporate objectives, Steel aimed to become a competitive international producer, of a wide range of high quality low cost flat steel products, to satisfy local and regional requirements (as stated in the company's new projects of Flat Production and Direct Reduction- details in Appendix C-1). The corporate objectives of Dairy (as stated by the managing director) was to increase the market share through gradual expansion with high quality, low price products. The goals of Trade (as explained by the head of Follow- up division) was to retrieve the previous position as a leading company in the market of importing and exporting heavy machine.

The leading activity in planning:

In Trade and Dairy company, the leading activity in planning was sales department and in steel company, the focus was on the production activity therefore, it leads the budgeting process and the other activities (such as purchase, maintenance, finance, sales) followed. This pointed at the centre of attention and the nature of activity and market it worked in. Trade company was a retailer which bought goods (mainly from foreign suppliers and sometimes from local producers) centrally in Cairo and distributed all over the country without any conversion operation taking place on it. Therefore, sales was the dominating activity. Dairy was a manufacturing company which dealt in products with a short production cycle and a high capability to adapt to the market demand. This suggests that the company probably needs to control the sales side of operation. Both Trade and Dairy faced strong competition in the Egyptian market. Unlike Steel which manufactured "durable" products and has the biggest share of steel and iron supplying in the Egyptian market. Also the market studies by specialised agencies proved that the company had a high likelihood to enhance its national, regional and international market share (as the Operations

Manager stated). All those reasons suggested that the company used production as a starting point in setting plans.

Who is administering the budget

In Trade company, the Follow -up division manager mentioned that the Finance department was responsible for administering and pursuing the process of implementing the budget whereas in Dairy company, the marketing manager revealed that his department took over this job. In Steel company, the Operations Manager indicated that Quality Control division which was a part of the Production Control department took this responsibility.
This difference was a reflection of the orientation and main concern in each company. In the public sector in Egypt -to which Trade belonged- budget is stressed as a control tool "money in and money out" therefore, it was handled by a division under the Finance department. For the Dairy product, the main concern was still oriented into the marketing activity which initiated profits. Then the marketing department directly administered the budget. In Steel manufacturing company, the production, its control and quality were at the core of the attention and hence the production control department contained the process of administrating the budget.

Commitment to the target figure and flexibility in achieving it:

The Follow- up Manager in Trade company illustrated that the ultimate target for the company was set in form of a surplus figure (a profit) towards which staff should be committed. In the main time, the company's policy allowed some flexibility in how to achieve that target (i.e what services and goods should be sold, when, at what terms,...). Although the budget contained details of the types and amount of equipment and services that should be sold, if -for any reason- the plan faced some difficulties in reality, the management could change the sales mix in order not to miss the target. An example has been given by the Follow -up manager assistant:

> The company has involved in some transactions with some Soviet countries in importing tractors, hydraulic machines and other farming machine. We have received complaints from our customers about some of these equipment. Brazil Consequently, the company decided to change the suppliers and got other brands from Japan, and Germany.

Such practice was not adopted by Steel or Dairy companies because of the more accuracy in forecasting in the two companies (as mentioned by the Managing Director in Dairy and Operations Manager in Steel). Also Steel -being a manufacturer in a highly complicated industry- might find changing the production schedule, not easy because of the time, planning and probably investments it might need.

Setting targets in financial or financial and non financial terms:

In Trade company -and consistent with the performance measures in use- goals were set in financial terms only (i.e surplus figure). This practice was justified by Head of Follow -up:

> We do not explicitly put non financial targets in our plan (for example quality). We are committed to setting targets in financial terms only. Nevertheless, we have post-selling service fixing, maintenance and repair services but these are part of the selling contract. We also do not put targets like marketing in new areas, selling new goods, we already market all over the country. Ultimately all these aspects (e.g quality, customer service,...) should have a financial echo, so they are ways to achieve an objective (which is the profit target)

However, in Dairy and Steel targets are set in both financial and non financial terms.

II: Measures

Similarity

- Divisions' Performance interdependence
- No distinction between Manager's performance and company's performance

Dissimilarity

The dissimilarity side between the three companies include:

- Using financial and non financial measures
- The emphasised importance of quality and safety in Dairy and Steel
- *Governmental intervention*

Similarity

Divisions' Performance interdependence:

A feature that was mentioned by participants in the enquiry in the three companies was the impact of other divisions on their performance but participants of company had different experience. In Dairy, the Marketing Manager explained:

> The performance of other departments affect the performance of the marketing department. I have an example on that. Once the electric (governmental) generator and the cable which feed one of our factories has burned so the factory completely stopped for 2 days. The negative effect of this accident extended for over 2 months till we managed to get rid of its impacts. It is an open market and the production department could not compensate the shortage in production which resulted from this accident. If the production department has planned to cope with such hazards, the production would not have stopped completely for 2 days.

Also the head of Delivery to the Northern Region in Dairy agreed on this argument and pointed at its consequences:

> Time is important to my work but my work gets affected by the work of my colleagues in other departments. For example the production department, when I come to load a van, the commodities should be ready to be raised to the van. If there is any delay from the production department or the storage people, this will impact my whole day. The first thing I am being accountable for, is meeting the time schedule of delivery.

the Importing Officer in Trade gave example of the lack of co-operation which he experienced and affected his work:

> I need my colleagues co- operation. For examples, once colleagues in another department returned the documents upon which we pay the foreign supplier many times asking different for alterations every time. They mean to protect themselves when it comes to accountability. I appreciate their concern, a mistake might cause thousands of pounds but over-protection makes my job takes too much time and effort to be done. My question is: why do not they state all what they want once.

The operations engineer in Steel company highlights a different experience with colleagues co- operation:

> The company often shift engineers among the different sites and jobs both to trigger their abilities to innovate and create and to make a good use of the accumulated expertise of the staff. Under this system, every engineer has to provide assistance to his successor. We are judged about co-operation with each other.

No distinction between Manager's performance and company's performance:

The participants in the enquiry did not report that it was a practice that the company split the performance of the manager from the performance of the individual. The head of Follow -up division in Trade 's point of view was that it was too complicated and not economic.

Although there was no exception of that in the Dairy and Steel companies, that practice was justified by the Managing Director of Dairy on the basis that top management was responsible for the overall work in the company and it delegated authorities to other managerial levels but it did not give up the responsibility about the total work.

Market measures:

The interview data indicate the fact that market measures (such as share price) were not used in any of the three companies. Also the interviewees in the three companies shared an attitude against market measures as performance indicators for different reasons but the major reason was lack of controllability. As the head of Galvanising division in Steel company gave the example about a high rise followed by a sharp fall in his company's share price (in one week) with no relation to management or company's performance (chapter 6, page 154).

Another reason was highlighted by the maintenance engineer from Trade company:

> I do not welcome the proposal that my performance be measured by the share price or any securities index. My company has achieved losses in the last three years (about £m 21 in the last year alone) and is over drawn from banks about £ m 40 while I work hard and am not responsible for the reasons or policies which led to these losses and to the collapse of the share price, then why should my performance be evaluated referring to it? It (the share price) does not represent my performance, my performance is represented by technical and financial measures as I explained.

Apparently, the interviewees agree on rejecting market measures as indicators of their performance mainly because they think they do not practice control on them. In their view, changes in securities' prices depended on dealers' speculations, amount of transactions, movements in the international securities exchange and the regulations which organised dealing in securities in Cairo exchange rather than reflecting changes in their performance.

Dissimilarity

Financial and non financial measures:

In Trade -and in consistency with setting targets in financial terms only- performance was measured in financial terms only for all departments. That was considered quite suitable for a retail company sought profit from all departments including service department. The assistant of Follow-up Manager suggested another reason that from the parent company's stance, this practice could facilitate the comparing different subsidiaries and comparing different activities of the company. Especially with the fact that the company contained an assortment of activities such as distribution, construction, repair and maintenance and reclaiming. This was unlike the financial indicators which were calculated under the "unified" accounting system of the public sector's companies. Nevertheless, still in Trade staff considered that some aspects of their work should be better expressed in non financial terms as the importing officer argued in the company's section (chapter 6, page 139)

In Dairy and Steel company, both financial and non financial measures were used, believed to be equally important (as the Galvanisation manager gave evidence in Steel's section in chapter6, page 154) and welcomed by employees in various managerial levels(chapter 6, page 151 and 153). In the two companies, creativity and quality are critical issues for many implications indicated below.

The importance of quality and safety in Dairy and Steel:

In Dairy company the Managing director emphasised the importance of keeping high standards of product safety. This stemmed from the fact that the company dealt in food products and any mistake might affect customer's health and demolished the company's reputation. Moreover, the company's policy in expansion rested upon outperforming competitors in quality and price.

In Steel, The Operations Manager indicated that the importance of safety had various roots. First, because of the huge investment and the number of employees existed in one spot and the company's location near Alexandria harbour and on an important platform between Alexandria and Al- Amerya city which was one of its newly established extensions, as the operations manager indicated:

> Three years ago the escalator which carries the raw material from ships to us and carries our production to the harbour melted and bended down because of a fire. Then there was a fear from the council and local community from using the road underneath it.

Governmental intervention:

An important feature that has been associated to Trade company (rather than Steel and Dairy companies) and affected measuring performance was the governmental intervention in the company's goals and systems examples on that are provided in Trade company's section (chapter 6, page 139). This feature has been noticed in the public sector only because of the state controlled the company's capital and the management

III: Evaluations

This section will report and analysis the bases of evaluate performance as used in the three companies and some observations on these practices and experiences.

Bases of performance evaluation:

Similar bases

1. Comparing to the budget:

In the three companies, the basic evaluation criterion is comparing performance to the budget and this is the first (and the sole in Trade) basis for evaluating (and hence rewarding as will be explained later). In Trade, the Follow- up department implemented this comparison for divisions and reported monthly any deviation from targets to provide a chance for them to compensate and catch the target.
In Dairy, the Marketing Department took this responsibility with a close follow- up to the work of the sales representatives where their work was checked weekly. In Steel company, each division had to report monthly to the Production Control division how much it achieved (explaining the cost, quality, defect units, cost, time, any problems) and the deviations from the plan. A Copy of this report was also sent to the top management.

2. Comparing to the past:

The three companies paid concern in looking at the performance trends over time. Therefore, comparing performance to the past was a shared pattern by the three companies but it was not used for remunerating employees in any of them. Steel and Dairy placed a special attention on the performance trends over time because of the implications which it provided to guide the expansion and growth strategies. After 6 moths of implementing a budget, Trade looked at the actual performance in that half a year and adjusted budget estimations for the rest of the year accordingly. Tracing the performance over time was also important to the parent company of Trade.

Dissimilar bases

1. Comparing to other divisions or departments in the company:

In both Steel and Dairy companies, one of the basic control practices was the internal comparisons between the departments and divisions. The comparison terms included achieving the division's plan, creativity and quality of work. However, Dairy company provided rewards to employees according to these comparisons but Steel did not. This type of comparisons was welcomed as a motivational tool and seen as helpful and fair by the employees (Head of Delivery service to Northern Region, Marking Manager and

Managing Director in Dairy and Production Controller and Galvanisation Manger in Steel). In trade, these comparisons did not exist because employees' evaluation and rewarding were done under the "Law of Public Sector's Workers" which did not include such comparisons. However, the Importing Officer sought:

> I wish we compare performance between departments and divisions who share the same environment and work under the same system. In such a case, differences would be meaningful and reflects distinctive efforts. I believe any outstanding performance should be framed and inspired by other workers.

2. Comparing to other organisations:

Dairy and Steel companies practised comparing the company's performance to other companies' performance but with different orientation and for different reasons. Both companies looked at their performance relative to peers' for purpose of planning and monitoring their position in the market. Nevertheless, Dairy compared its performance to the performance of a group of food and dairy producers in the Egyptian market. It aimed from that to reward top management (this is the RPE practice in Dairy which will be discussed in detail a following section of this report). Steel compared its performance to international steel producers' in order to observe its position and explore possibilities to expand in the international market. Steel did not set rewards to employees on this comparison. Although Trade did not hold any type of these comparisons but the parent company matched Trade to sister companies in the public foreign trade sector. Regrettably, there were no data available about the parent company's practice.

A point that should be noticed here is that, Dairy company was doing this external comparison irregularly whereas Steel run this monitoring process with international competitors regularly.

Observations on the evaluation practices:

a) How individual's performance was assessed:

Steel company run two different types of evaluations: evaluation for divisions and evaluation for employees. Regarding the division, it was compared to its plan (and the employees are rewarded accordingly) and to other divisions. The main theme in these comparisons was that unit of measurement was the division or the department itself. Regarding individuals, Steel had an assessment technique whereby unit of appraisal was "the employee". That process was refereed to as "The semi- annual review" which The head of Galvanising division explained:

> For the person himself, various aspects are assessed and he is being rewarded accordingly. We have a semi- annual review done by the employee's direct manager. The bases of this evaluation are: 60% for the technical performance (including quality and time spent to do the job), 10% for being punctual, 10% for any developments, creativity he produces, 10% for his behaviour with others (colleagues, managers,...) and 10% for his behaviour with colleagues in other departments. Employees are ranked on this evaluation on a normal distribution even if it is strict and restricting for us, we do not depart from it and if we do, we might relax in applying it by on 1 or 2 people not more and I am convinced by this system. However, our ranking is reviewed by the "Administration Affairs" department where they double check the ranking they are entitled to amend it.

c) The experience with modes of evaluation:

One point related to the expectation from follow up work, was suggested by the assistant of the Follow-up Manager in Trade:

> Follow up should not stop at measuring deviations, it should extend to investigate the reasons behind deviations, who is responsible for them and the responsible person should be accounted for that.

Steel company had an experience that should be mentioned with the duration of performance review. The company was used to do an annual review for performance once a year. Near the end of the fiscal year and because each department would be willing to catch the targets, there was a huge pressure on the staff and the machines. Of course, the bigger the gap between the goal and the actual performance was, the more frustration and burden on the staff and the machines were. That was used to be followed by a number of machine breakdown and heavy requisite of holidays. Therefore, the company decided to do the performance review quarterly instead of annually. Then, the gap that should be recovered was relatively small and both staff and machine did not suffer from fatigue.

IV: Reward

The practice of pay and remuneration in the three companies has some similar points for example;

- having variety of items
- the rewards mainly based on meeting the targets
- Common experience of the non monetary rewards

Nonetheless, there are differences in remuneration practices between the three companies in:

- level of pay,
- existence of fines,

- preferable form of rewards
- employees' satisfaction of the remuneration system.

The following section will discuss the pay and reward practices, the similarity and dissimilarity points and possible influence on employees' satisfaction.

Similarity in remuneration practices:

Variety of components and forms of pay

There is a degree of agreement among the three companies in varying the content of the remuneration package. All compensation schemes in the three companies contain: basic salary, rewards on meeting targets, regular increase in pay to amend the impact of inflation and rewards for extra ordinary efforts.

In Trade, cash was the sole form of rewards paid to employees in all levels. An exception of this general rule was, some non financial privileges provided to top management members such as cars, holidays by the seaside in properties owned by the firm. These privileges were neither related to achievement, nor exercised a regularly. Dairy and Steel paid employees in all levels, in a variety of forms such as cash, shares, cars, medical services, welfare, accommodation and holidays. This was a regular practice with a distinctive feature in Steel, where training and study opportunities were facilitated for staff in different levels locally and abroad.

Meeting target is the first criterion for rewarding:

In Trade, Dairy and Steel, employees were entitled to rewards when target was met and that was the sole criterion for rewarding in Trade. If more than the target was achieved, a proportional reward was offered. Therefore this part was called "the changeable pay". The time of achieving the target had some influence as well. In Trade which was a public company with low pay, when the missed part of a target was recovered, the related reward could be collected while in Dairy and Steel, when a target is missed, the related reward was not retrievable.

Common experience of the non monetary rewards

The Managing Director in Dairy mentioned that an extra-ordinary achievement or creative proposal was acknowledged by the company. He believed that facilitating promotion for merits among the young staff to get higher positions was particularly encouraging. Similarly, the Importing Officer in Trade reports that he and his colleagues was impressed when the chairman of the board of directors sent a "Thank You" letter to one of their colleagues for his extra ordinary effort.

Dissimilarity in remuneration practices:

Level of pay and rewards:

A general but important observation regarding the level of pay as it appeared from the internal documents which have been made available to the researcher. The lowest average of pay in the three companies was in Trade while in Dairy was about twice as big as the average annual salary in Trade. The average in Steel which reaches about 3 folds average in Trade and one and a half fold of Dairy. This was a general feature in the public sector where wages are remarkably lower than the wages in the private sector (as stated by Follow up assistant Manager in Trade, Marketing Manager in Dairy and Galvanisation Manager in Steel who worked in a public company before joining Steel). Therefore, the details and implications of this point will be discussed in the comparison between public and private sector chapter 7, p: 184).

Preferable form of rewards:

There was a general tendency among the interviewees -who belong to different managerial levels- to prefer receiving rewards in cash in the first stand. As The Importing Officer in Trade stated:

> Generally and not related to RPE, Cash is better. There is no point that the company buys shares on my behalf or pay for a holiday and decides this as part of my remuneration package.

One exception was the Production Control Officer who approved varying the form of reward and voted for shares.

Employees' satisfaction with the remuneration in the three companies:

Apart from the cautious view of the participants of Trade and their comments explained earlier, the participants from Dairy and Steel expressed their satisfaction towards the pay package both in amount and content. The Marketing Manager in Dairy ranked remuneration there as one of the best in Egypt and the Galvanising division described as being very good and quite satisfying.

Appendix (C-4)

Some information about the Dairy company's competitors

Business Information in Egypt:

http://www.cairo96.gov.eg/bin/Swebdbc.exe/summit/company/htx/&.business/result1.htx?

1) Halwani Brothers

http://www.cairo96.gov.eg/bin/Swebdbc.exe/summit/company/htx/&.business/result2.htx?&d_id=595

Commercial Name: Halwani Brothers
Address: B3, Area 163/164, 10th of Ramadan City
Phone: 015369520-530-540-525
Fax: 015/369510
E-mail address:
Saleh Kamel

Public/Private company: Private
Member of: Food
Type: Manufacturer
Field(s) of Activity: Food and Kindred Products (Processed)

Product(s)/Services(s):
Sausage, Smoked Products, Burgers

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2) Juhayna Company For Milk Industries

http://www.cairo96.gov.eg/bin/Swebdbc.exe/summit/company/htx/&.business/result2.htx?&d_id=698

Commercial Name: Juhayna
Address: 6th of October City : 1st Zone Part 40
Phone:
Fax: 02/3461230 - 011/330363
E-mail address:
Chairmen Engineer Safwan Ahmed Sabet

Public/Private company: Private
Member of: Food
Type: Manufacturer
Field(s) of Activity: Food and Kindred Products (Processed)

Product(s)/Services(s):
Milk & Juice Production, Cheese

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3) International Dairy & Foods Company (Milky Land)

http://www.cairo96.gov.eg/bin/Swebdbc.exe/summit/company/htx/&.business/result2.htx?&d_id=608
Commercial Name: **Milky Land**
Address: 111, Thawra St., Heliopolis
Phone: 4174871- 2906986
Fax: 2905237
E-mail address:

Public/Private company: Private
Member of: Food

Type: Manufacturer
Fieid(s) of Activity: Food and Kindred Products (Processed)

Product(s)/Services(s):
Full Range of Dairy Products & Juices Long Life Milk, Milk Shake, Yogurt

4) United Food Products

http://www.cairo96.gov.eg/bin/$webdbc.exe/summit/company/htx/&/business/result2.htx?&d_id=594

Commercial Name: Alloaloaa
Address: Industrial Zone, Ismalia
Phone: 064325002, 325001
Fax: 064325002
E-mail address:

Public/Private company: Private
Member of: Food
Type: Manufacturer
Field(s) of Activity:

Food and Kindred Products (Processed)

Product(s)/Services(s):

Corned Beef, Canned Beef, Canned Fish
Canned beans, Canned Vegetables, Juice

Performance Management - Guidelines for Managers and Staff

United Utilities is committed to help people achieve their potential and gain recognition for their contributions to the organisation. We recognise that good leadership is about giving clarity about what needs to be achieved and helping people understand what they need to do differently in order to deliver high performance. The guidelines provide a way to help **leaders** enhance their role in this regard and improve the performance of their teams through meaningful constructive feedback on performance. It gives **us all** a way to assess our contribution, plan for improvement in a focused way and understand how we are rewarded for our efforts over the year.

Two new Group policies are being introduced in order to achieve this. For all staff a **Performance Management interview** will be scheduled during April/May each year and a **Learning Review** undertaken in October. The Learning Review will lead to the development of an individual Learning Plan which will identify learning activities to be undertaken during the next year to:-

* improve your current level of performance against agreed objectives, and
* gain the level of experience and competence to work in different roles to help you progress to meet your career aspirations.

Further information on the Learning Review will be issued during the summer of 1997.

Performance Management Review

Your Performance Management Review should take place no later than **31 May 1997**. The process is designed for Directors in the Group Corporate Centre to be able to reward performance through the July salary review within overall budgetary constraints. The process is designed to increase the amount of information which is shared. You should receive constructive feedback on your performance and you can discuss with your manager their view of how your performance impacts on the Directorate's overall ability to achieve its business goals.

The Review should be based on two areas:-

- a discussion of your performance during 1996/97 against objectives.
- the setting of suitable individual or team objectives for 1997/98.

Review of Objectives for 1996/97

If you had a clear set of objectives set then the discussion should focus on a review of your performance against those objectives. However, many staff will not have had specific personal or team objectives set for the 1996/97 financial year - if this applies to you then the discussion should concentrate on a general review of your performance over the year, concentrating on any specific tasks and goals that have been important to your role and that of your Directorate.

Preview of Objectives for 1997/98

Directors will firstly define the key goals and priorities for their Directorates for the year based on the overall plan for the Group Corporate Centre. These overall goals can be translated into objectives as appropriate. Please note that there is no standard format for the number and style of these objectives. They should, however, be:-

- Specific
- Measurable
- Attainable
- Relevant
- Time Related

The objectives can be either individual or team based, or a combination of the two and can either be on an annual basis or for a shorter period, depending which is appropriate. In either case, however, there should be regular reviews during the year to check progress and to ensure that the objectives are still meeting appropriate business targets. If necessary new or revised objectives can be set during the year.

It is particularly important that you have a very clear understanding of your objectives for the forthcoming year and how success against them will be measured. Remember that next year's Performance Review discussion will be based on your performance against these objectives.

Performance Rating

The Performance Review discussion will lead to a performance rating in line with the following framework.

Excellent - Outstanding performance significantly exceeding job requirements in all respects and at all times.

Very Good - Consistently meets the normal requirements of the job in the majority of areas. The only improvements that could reasonably be expected are of a minor nature.

Good - Consistently meets the normal requirements of the job with performance exceeding those requirements in a number of areas. Some improvements could reasonably be expected.

Satisfactory - Meets the normal requirements of the job but there will be areas where performance could be significantly improved.

Unsatisfactory - Constant guidance required and performance significantly below job requirements in many areas.

Performance ratings will then be used to reward performance as part of the annual salary review in July.

Performance Management Forms

A simple, revised form has been prepared to record the outcome of your Performance Review and is also attached to the exchange message. There are 3 pages:-

1. Provides a brief record of your post and the Performance Rating.
2. Allows for a review of Personal Objectives for 1996/97 where appropriate.
3. Gives space for a summary of the outcome of the discussion and allows space for you and your second level manager to comment. In addition there is a space to allow the identification of any urgent training and development needs which need to be addressed before the Learning Review in the Autumn.

Copies of completed Performance management forms will be kept on file in the Group HR Department.

SUMMARY OF PERFORMANCE

OVERALL PERFORMANCE RATING	U	S	G	V	E

(Please tick appropriate box)

DEVELOPMENT

What immediate training and development needs have been identified in the discussion which need action before the Annual Learning Review in the autumn?

EMPLOYEE'S STATEMENT

SECOND LEVEL MANAGER'S STATEMENT

Manager's Signature	Date

THINKING THE BUSINESS

- **Analytical Thinking**
  Breaks things down into components, looks at all angles, weighs up implications, calculates risks.

- Calculates risks in terms of costs and benefits.
- Anticipates problems and identifies issues correctly.
- Analyses data using a variety of tools and techniques.
- Analyses data in a methodical way.
- Considers possible implications of decisions before acting.
- Looks at the disadvantages as well as the advantages of a proposal.

- **Creativity**
  Introduces original approaches or adapts existing ones to meet new situations.

- Breaks deadlock situations via original thoughts or ideas.
- Recognises innovative and creative solutions and builds on them.
- Is rarely satisfied with the first idea, consistently looking for new and better ways of doing things.
- Identifies several possible explanations for a situation.
- Modifies existing ways of working to fit changing requirements.
- Is willing to try to pilot ideas/ways of working.

- **Strategic Vision**
  Long term future thinking, develops a long-term `game-plan' to guide operational decision making.

- Recognises key issues in complex situations, making appropriate links between items.
- Links day to day activities to a longer term strategic vision.
- Questions basic premises and assumptions.
- Builds on past experiences to develop new ideas.
- Translates the longer term perspective into practical working plans.
- Views issues in a wider context.

- **Business Curiosity**
  Has an up to date knowledge of trends and developments in the broader business environment.

- Aware of the impact of external influences on the business eg regulatory, political environmental
- Knowledgeable about the financial and business markets in which the Company operates
- Understands the commercial constraints under which the Company operates
- Keeps up to date with new business practices and methods
- Initiates networking and constantly seeks opportunities to influence, share knowledge and understanding

- **Planning**
  Systematically sets out short and long term goals and establishes priorities.

- Develops effective plans which deliver high performance
- Sets challenging but realistic long and short term goals
- Establishes and constantly reviews deadlines and targets
- Able to establish priorities
- Thinks ahead and anticipates problems

ACHIEVING THROUGH SELF

- **Flexibility**
  Changes viewpoint/behaviour and makes plans in the light of changing circumstances or new evidence.
- Adjusts their style to meet the needs of the situation.
- Sees the merits of differing positions or opposing viewpoints
- Relishes change
- Identifies which areas are open for debate and which are not. Identifies issues and possible solutions.
- Responds positively when asked to change plans/goals.
- Keeps working effectively if the targets/resources have to change.

- **Stability Under Pressure**
  Handles pressure and recovers quickly from setbacks.

- Uses alternative ploys to reach goals in the face of difficulties.
- Refuses to accept that a solution cannot be found.
- Maintains a high level of energy/drive until the goal is attained.
- Keeps trying to achieve despite hitches, has a positive "can do" attitude.
- Actively looks for ways round difficulties.
- Does not get frustrated in the face of obstacles.

- **Initiative**
  Takes the first step. Spots things that need to be done and does them before needing to be asked.

- Takes calculated risks.
- Pushes for change to improve business performance.
- Identifies issues and possible solutions.
- Tries a new way of doing a job because it might be better than the traditional method.
- Self starting rather than passively accepting.
- Does not need to be asked to tackle problems/issues.

- **Self Development**
  Adopts an approach to continually improving self and work methods.

- Reflects on experiences to identify why things have happened.
- Draws conclusions on reflections and identifies learning points.
- Takes responsibility for own development.
- Looks for opportunities on the job to learn and develop new skills/knowledge.
- Assimilates and applies new job related information.
- Demonstrates a willingness to try out new ways of working.

- **Independence**
  Takes actions based on own convictions rather than a desire to please others.

- Is not easily swayed
- Demonstrates self confidence
- Is willing to question organisational decisions
- Is prepared to express unpopular opinions whilst knowing when to back off
- Expresses opinions openly

- **Personal Organisation**
  Adopts an organised approach to work and interactions with others.

- Organises own work area so that information is readily accessible.
- Addresses issues in a logical methodical manner according to priority.
- Makes lists of things to be achieved each day/week.
- Keeps diary up to date, avoids double bookings.
- Goes into meetings well prepared having read any necessary papers.

ACHIEVING THROUGH OTHERS

- **Oral Communication**
  Speaks clearly and concisely in a way which is appropriate to the receiver.

- Speaks clearly, fluently and to the point
- Able to hold an audience's attention, both in group and one-to-one situations
- When appropriate uses questioning to clarify understanding and notes key facts
- Adjusts level of language to suit the audience
- Listens actively and demonstrates understanding

- **Written Communication**
  Produces written communications which are clear, fluent, concise and readily understandable by the intended recipient(s)

- Produces clear and succinct written communications
- Able to précis and simplify complex and technical issues
- Able to pitch material at the right level for the audience
- Avoids jargon, produces well structured material which is clear.

- **Developing Others**
  Helps people to help themselves. Balances support and honest feedback.

- Consciously acts as a role model for others skill development.
- Ensures opportunities are available or created to reinforce/develop new skills.
- Gives people control of their own work and holds them accountable for output.
- Helps people construct reasonable/realistic development plans.
- Provides constructive feedback and support.
- Regularly reviews development plans with individuals.

- **Influencing**
  Analyses where others are coming from and behaves accordingly to change their minds.

- Uses different approaches to persuade different people.
- Tests out ideas/information informally.
- Analyses positions people are likely to take and acts accordingly.
- Actively influences the course of a conversation in their favour.
- Attempts to balance the needs of all parties.
- Listens and confers with individuals/groups or customers.

- **Empathy**
  Sees things from others perspective. Senses feelings and hidden agendas.

- Draws sensitive inferences about others' emotional state or way of thinking.
- Accurately judges other peoples thoughts or feelings.
- Thinks through situations from other peoples perspectives.
- Actively shows interest.
- Asks appropriate questions to clarify understanding.
- Tries to anticipate hidden agendas before going into meetings.

- **Teamworking**
  Acts in a way that helps the team achieve its objectives.

- Recognises and builds on group dynamics.
- Encourages and supports a sense of purpose or unity in the team.
- Gets to know what makes other people in the team tick.
- Ensures that all members of the group contribute to the process.
- Gives credit to staff rather than taking all the glory.
- Talks through what is worrying people and offers appropriate reassurance.

ACHIEVING STAKEHOLDER EXPECTATIONS

- **Stakeholder Focus**
  Fully understands the importance of balancing the needs of stakeholders within acceptable costs to the organisation.

- Identifies and continually keeps abreast of changing stakeholder needs.
- Actively seeks out stakeholder feedback.
- Identifies the cost benefits of alternative strategies to support stakeholders.
- Monitors performance and makes adjustment to improve where possible.
- Responds to stakeholder queries/complaints professionally and positively.

- **Quality Focus**
  Gives attention to quality and shows concern about improving standards.

- Sets high standards of performance for him/herself and others
- Develops and improves quality systems to enhance services to stakeholders
- Continually adopts a questioning approach to his/her duties
- Seeks to improve business processes through comparison to best in class
- Does more than the minimum required
- Ensures attention to detail

Understands the commercial realities which drive the business

- Focuses on the financial effects of business decisions
- Works within agreed budgets
- Achieves the cost effective use of resources
- Proactively seeks profitable business opportunities

- **Results Focus**
  Leads conversations and discussions to achieve an outcome.

- Sets stretching but realistic targets and ensures that they are met.
- Initiates actions to achieve results, proactive in style.
- Constantly reminds people of goals.
- Establishes ways of monitoring progress against personal objectives.
- Clearly expresses the desired outcome.
- Has contingency measures when things go wrong/not according to plan.

United Utilities

CONFIDENTIAL

PERFORMANCE MANAGEMENT
1996/97

NAME --

Period of Review	
Date of Interview	
Present Post	
Date of Appointment to Present Post	
Directorate	

Overall Performance Rating	

REVIEW OF PERSONAL OBJECTIVES 1996/97

OBJECTIVE	COMMENTS	ACHIEVED YES/NO

Additional Comments: ______________________________

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Appendix (D-2)

A Detailed presentation of analyses of United Utilities' questionnaire data

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This report will include the following points:

* Preparing the data for analysing

* Deciding the analyses to do

* Analysing the data: Descriptive analyses and association and variation analyses

Preparing data for analysis:

The first point to be mentioned here is that, an aggregate measure for RPE has been created in order to do the data analysis.

The measure is: RPE = The motivational role of RPE + The monitoring role of RPE.

The reason behind this summation is that, these are the functions which have been proposed in the literature for RPE and the core issue of the technique could be traced through them. Also, The empirical evidence suggest that motivation and monitoring have been correlated in all companies.

Generally, the practice which has been adopted in the first part of the field work has been replicated here. The collected data were kept in a file for the company. It included a brief profile about the company, a copy of the answered questionnaires, a complete transcript of the interviews, any internal documents has been given by the company (e.g annual reports, organisational structure). It has been decided in early stages of the research that data will be analysed by SPSS statistical package. According to the requirements of SPSS, data had to be coded. Firstly, the questionnaire variables were abbreviated and each item assigned that abbreviation for the whole sample. For example: frpe: the fact that the company uses RPE. Secondly, another code number was assigned to each question which represent the answer for that question e.g code number 4 means the respondent "agrees" on the argument. More than a copy of United Utilities data -either the hard copy or the electronic copy- have been kept in separate locations.

Deciding the statistical analyses:

Again, the same procedures used in the first part of the field work, has been repeated here, where three groups of analytical tools have been considered:

- Descriptive statistics (frequencies, central tendency and variation techniques)

Correlation, regression, Chi- square and ANOVA analyses

In order to determine whether to accept the correlation level and to classify the various levels of it, the statistics text books refer to "the critical values of correlation" (Becker and Harnett 1987, Lentner 1979) depending on the sample size. Because the sample size of the whole data is: 26 cases, then the critical values of correlation at .05 significance level is .36 as the minimum level of accepted/ likely correlation. Spearman correlation for ordinal data was used along with the regression, and ANOVA test to trace differences among managerial levels regarding any of the issues in concern.

Section One: Descriptive Statistics of The potentials and context of RPE

◊◊◊◊◊◊◊◊◊◊◊◊◊◊◊◊◊◊◊◊◊◊◊◊◊◊◊◊◊◊◊◊◊

Various statistical analyses were carried via SPSS, including central tendencies of variables, variability and frequency distribution. Table (7-1) report the responses of 26 participants from United Utilities group regarding the existence of RPE, the relative significance of comparing to peer groups, preferring financial measures in one hand and both financial and non financial on the other hand, satisfying with market measures and preferring a/ specific form of reward.

I: Facts: The existence of peers' comparisons, RPE and market measures -

Table (6.1.1) summarises the key data about the facts of United Utilities' comparing employees performance to performers in other companies, rewarding employees according to that comparison, using accounting measures and/ or market measures to indicate performance and the components of remuneration packages as described by employees who participated in the investigation.

Table (6-1-1): Facts: The existence of peers' comparisons, RPE and market measures and remuneration's components

variable	% of agreeing to the total respondents
comparing performance to peers	3.8
using RPE	23.1
using accounting measures	15.4
using market measures	3.8
remuneration package:	
cash	96.2
shares	46.2
post retirement benefits	61.5
holiday	76.9
medical coverage	69.2
better working conditions	26.9
Total number of respondents	26

II: Attitudes: Towards RPE, performance measures and reward

The employees' attitudes towards the potentials of RPE, the performance indicators and the form of reward that should be used under an RPE scheme.

Four descriptive techniques were used to describe the investigated contingents of RPE (targets, measures and reward). These techniques are: (1) mean, (2) standard deviation, (3) the standard error of mean[2] (4) variance[3] and (5) coefficient of variation[4] These measures have been calculated for each company individually and for the whole companies together shown in table (6.1.3) and summarised below:

Table (6-1.2): Attitudes about RPE, its roles, performance measures and reward form

measure	RPE	Roles of RPE: motivation	monitoring
Points f agreeing	42.2	57.7	53.8
Mean	3	3.11	3.07
Median	3	4	4
Std Dev of mean	2.3	1.52	1.23
Std Dev of error	.47	.298	.241
Variance	2	2.1	1.5
Coefficient of variation	.67	1.48	2.04

The table shows that 42.2% of the respondents approved RPE as amotivational and monitoring tool. The mean and median did not show strong approval as they were around "3" which was the code of "not specified" point of view, unlike the obvious support for the motivational and the monitoring roles of RPE.

The potentials of RPE and the employees' objectives from work

After investigating about RPE and its roles, the employees' objectives from work was examined. A range of objectives has been introduced into discussion includes: making money, gaining esteem, doing outstanding work, self satisfaction and getting promoted and others. What the respondents were seeking from work is presented in figure (6.1) below:

1. money 2. esteem 3. doing outstanding work 4. personal satisfaction 5. promotion

[2] The standard error of mean shows how much the mean varies from sample to sample in the same population. It is the standard deviation of the distribution of all possible means when samples of the same size are repeatedly taken from the same distribution.

[3] A measure of dispersion around the mean, equals the squared deviations around the mean divided by the number of cases minus 1.

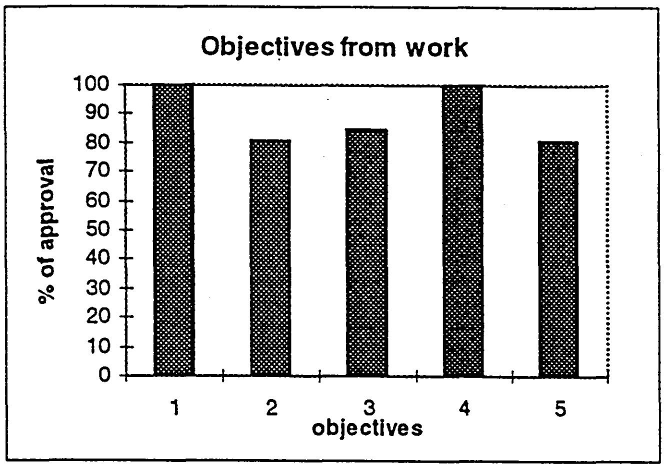


Table (6.2.2) showed that money gained a full approval, personal satisfaction 96.1%, doing outstanding work and promotion each got 80.8% and esteem was approved by 76.9%. The median showed an agreement on these objectives, turnes to strong agreement for personal satisfaction.

Nevertheless. the coefficient of variation highlights that data were not homogenous about these objectives except for "doing outstanding work", other that that, the coefficient was more than 10% indicating non homogeneity. The correlation between being motivated through RPE and these objectives will be explored later with the other types of analatical statistics.

Table (6.2.2) Respondents' objectives from work

measure	money	esteem	outstanding	satisfaction	promotion
Points of agreeing on[5]:	100%	76.9%	80.8%	96.1%	80.8%
Mean:	4.38	3.96	4.12	4.73	4
Median	4	4	4	5	4
Std Dev of mean	.496	.539	.764	.326	.55
Std Dev of error	.097	.108	.153	.064	.112
Variance	.246	.290	.583	.106	.303
coefficient of variation	17.8	13.65	7.2	44.6	13.33

A point which could be highlighted from these data is the high importance which participants placed on money and -oppositely- the least importance the respondents gave to esteem. The literature suggests that employees would respond to RPE and compete with peers to gain the reward and esteem. Here, a question arises about the mechanism by

[4] A measure shows whether the data are homogenous or not. It equals: (average/ variance) * 100%. When the measure is less than 10% this means the data are homogenous.

[5] as a % to the total response to the item.

which RPE would motivate employees to compete, if those employees show a primary lack of concern in esteem.

Therefore, an investigation about whether RPE could provide money, esteem or both was included in the questionnaire and the answers on it as follows:

Table (6.2.2): The roles of RPE and the mechanism of motivation

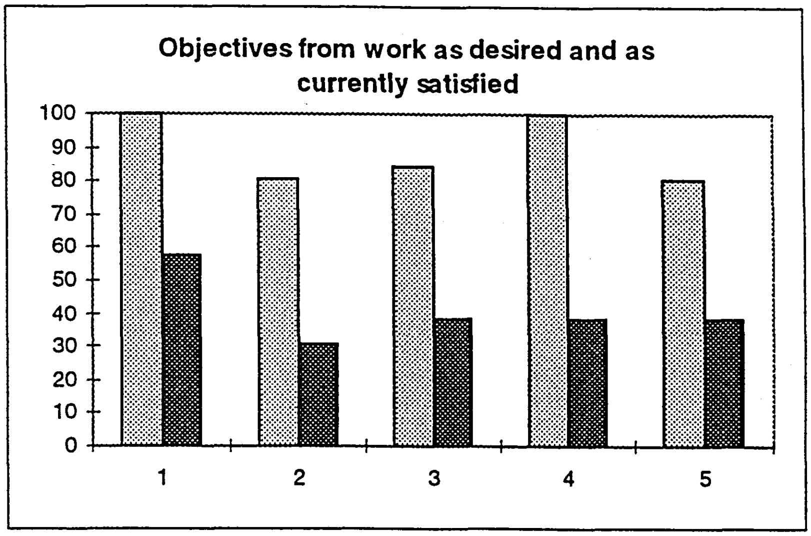
measure	behaviour derives money	recognition	both money + recognition
% of agree	26.9	15.4	19.2
Mean	2.59	2.22	2.78
Median	2	2	3
Std Dev of mean	1.18	1.02	1.18
Std Dev of error	.251	.217	.271
Variance	1.39	1.041	1.39
coefficient of variation	1.86	2.13	2

First, each of the three arguments about whether RPE could provide: money only, esteem only or both money and esteem, could gain approval more than a third of the respondents. Second, the biggest portion of respondents voted for the ability of RPE to provide money only (26.9%) while 19.2% saw it could provide both money and esteem comparing to 15.4% considered RPE would be able to provide esteem only. This result was backed up with the average answer as represented by the median ranges between 2 “disagree” and 3 “not specified”. Data were homogenous for all variables where the coefficient of variation was below 10%. This suggests that respondents considered that competing with peers through RPE was a weak mechanism for making money only, providing esteem only or providing both money and esteem.

Figure (6.1) below provides the employees’ response about whether or not their objectives from work are being satisfied currently by the company’s remuneration system comparing to what was desired from these objectives.

1. money 2. esteem 3. doing outstanding work 4. personal satisfaction 5. promotion

desired. urrently satisfied



The figure above shows that there was a big gap between what was required and what was provided. For example money and personal satisfaction were required by 100% and 96.1% of the respondents, but reported to be currently satisfied by 61.5% and 34.6% of the respondents respectively. Doing something outstanding was desired by 80.8% and reported to be currently satisfied by 42.3%. Gaining esteem and getting promoted were sought by around 80% of the participants but around 30% reported that the company's system satisfied these needs currently.

The general conclusion of this point is: Employees would respond to RPE because it was approved as a motivating and a monitoring technique. In doing so, respondents sought to gain money rather than esteem.

The peer group:

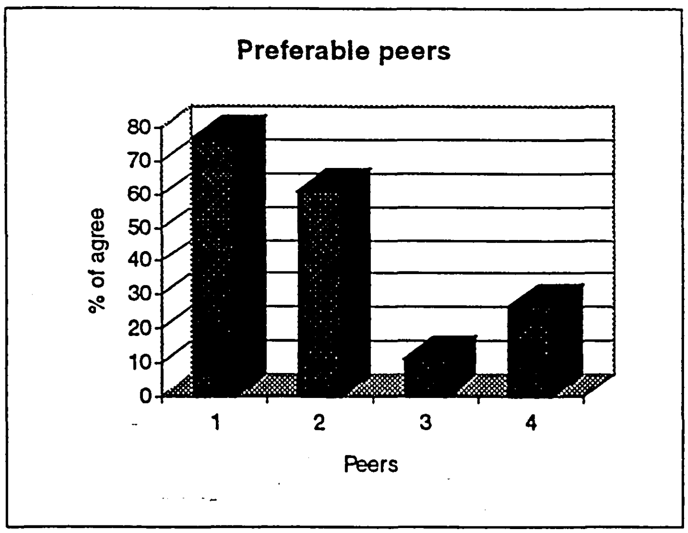
There have been contingent factors under investigation and the first element of them was the peers group. There were two issues relate to the peer group subject to investigation, firstly, the preferable peer group to compete with, secondly, the perceived difficulty of each group. Table (6.2.5) summarises the respondents' preference of peers.

Table (6.2.5) The preferable peers

measure	Peer group belongs to the:			
	same company	same region	same industry	top 100
Points of agreeing on[6]:	76.9%	11.5%	61.1%	26.9%
Mean	4.18	2.3	3.65	2.79
Median	4	2	4	2
Std Dev of mean	1.006	.864	1.22	1.13
Std Dev of error	.215	.1933	.256	.248
Variance	1.013	.747	1.51	1.29
coefficient of variation	4.12	3.078	2.41	2.16

The table shows that preferring a comparison group from the same company was supported by 76.9% of the respondents, 61.6% for a comparison group from the same industry, 11.5% for a group from the same region while 26.9 % for a group of competitors amongst the top 100 company nation- wide. What is worthy observing here is that, peers from the top 100 companies was preferred by only 11.5% of the respondents, although United Utilities used the FTSE 100 as a reference group for her RPE scheme for top management. That category of employees who were rewarded on RPE, were represented by 5 participants in this research. This might suggest that the design of this item in the policy was not widely welcomed across the company.

Another observation is that, taking the median as the average for the ordinal data, it would appear that, respondents accepted a peer group from the same company and same industry only. The overall differences of employees' preference of peers is shown in the diagram below.



1. Peers from same company	2. Peers from same industry
3. Peers from same region	4. Peers from top 100

A possible reason behind this attitude, was the employees' perception to each peer group in terms of difficulty, that has been investigated. How the respondents classified difficulty and attainability of different peer groups is highlighted in table (6.2.6) below.

Table (6.2.6) Respondents' perception of peers in terms of difficulty and attainability

the peer group from the;	Attainable categories: easy attainable	difficult attainable	**total attainable**	unattainable categories: extremely difficult +barely attainable	too difficult unfair	best description for the peer group on **individual** category
same company	30.8	30.8	61.6	7.7	3.8	easy or difficult but attainable
same region	7.7	11.5	19.2	26.9	30.8	too difficult, unfair
same industry	7.7	34.6	42.3	34.6	3.8	either difficult but attainable or extremely difficult and barely attainable
top 100	3.8	26.9	30.7	11.5	34.6	too difficult, unfair

As shown in the table, 61.6% of the respondents believed that comparing with peers from the same company was either easy or difficult but in both cases attainable and that was the biggest support to a peer group. Competing with peers from the same region or from the top 100 companies under RPE was seen too difficult and unfair 9by 30.8% and 34.6% respectively). Peers from the same industry was equally described to be either difficult but attainable or extremely difficult and barely attainable (by 34.6%), however, a total of 42.3% described it as attainable, comparing to a total of 38.4% considered it unattainable. The point to be observed here is that, United Utilities used FTSE 100 as a comparison group for its RPE scheme. Nevertheless, that comparison group was described by participants in the enquiry to be "too difficult and unfair", this raises some doubt about the acceptability which that evaluation scheme held in the company.

The inquiry has been complemented by a question about the possible reaction/s which the respondent might take if the system was using what he/ she considered "unfair" assessment criteria. The biggest support (69.2%) was given to negotiate changes in the system, the average -as indicated by the median "4"- also showed an "agree" type of answer. Data are homogenous for all options where the coefficient of variation was below 10%.

Table (6.2.7) Employees' reaction to "unfair" assessment criteria

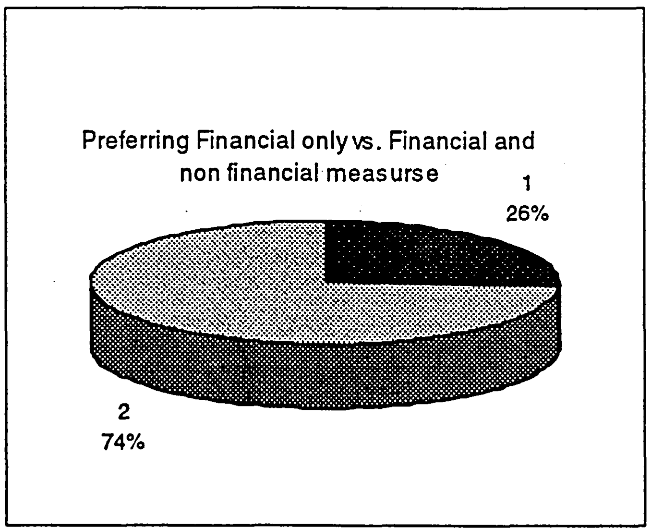
measure	continue positively	negotiate changes	ignore the system	work against the system
Points of agreeing on[7]:	26.9	73.1	26.9	38.4
Mean	2.37	4.08	2.87	2.8
Median	2	4	3	3
Std Dev of mean	1.209	.7173	1.03	1.19
Std Dev of error	.246	.1464	.2112	.243
Variance	1.462	.514	1.071	1.418
coefficient of variation	1.62	7.93	2.67	1.97

The financial and non financial measures:

The second item in the RPE technique which has been examined as a contingent the employees' attitudes towards the financial only and financial and non financial measures. Results shown in table (6.2.8). The issues that have been explored here are:

- the preference to financial measures only veers financial and non financial measures,
- the features which are preferred to be in the performance indicators,
- whether a given samples of measures would be welcomed within an RPE system and
- the preferable time span of measures. The following figure summarise the support of the financial and non financial measures.

1. Preferring financial only 2. Preferring financial and non financial



As the figure above indicates that 30.7% supported the financial measures only while 92.3% approved a combined system of both financial and non financial measures to be used under an RPE scheme. However, the average answer -taken from the median- shows that respondents did not agree on the use of financial only measure to indicate their

[7] as a % to the total response to the item.

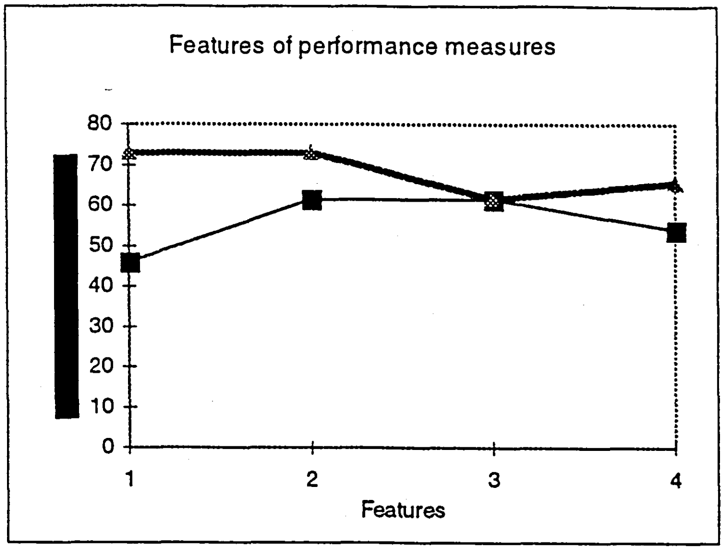
performance (the median is "2" which was disagree). The median for using both financial and non financial indicators was "4" which was a code for "agree".

2- The inquiry extended to the employees' perception of the existence of some features in the financial measures in one hand and the non financial measures on the other hand. The support was generally in favour of the non financial indicators as shown in table (2.6.8) below.

Table (6.2.8) Respondents' feedback on the existence of some feature in the financial and non financial measures.

Measures	Preferable measures		Features of measures:							
	F only	F+ non F	comprehensive		controllable		time- related		accurate	
			F	nonF	F	nonF	F	nonF	F	nonF
points to agreeing	30.7	92.3	26.9	73.1	30.8	76.9	61.5	61.5	53.9	65.4
Mean	2.9	4.32	3.33	4.2	3.85	4.18	3.9	3.8	3.7	3.9
Median	2	4	4	4	4	4	4	4	4	4
Std Dev of mean	1.3	1.39	1.39	.935	1.31	1.006	1.07	1.18	1.23	1.08
Std Dev of error	.283	.303	.303	.199	.287	.214	.233	.251	.268	.236
Variance	1.82	1.93	1.93	.874	1.72	1.013	1.14	1.39	1.514	1.22
coefficient of variation	1.59	2.23	1.72	4.8	2.23	4.12	3.42	2.73	2.44	3.19

On a comparative level, the table shows that the participants gave more weight to non financial measures over the financial measures, in being: comprehensive, controllable and accurate whereas both types of measures were equal in being time related. On individual level, non financial measures were described to be first controllable, then comprehensive, accurate and finally time related while the financial measures were seen by respondents firstly to be time- related, then accurate, controllable and finally comprehensive. For all variables, data are consistent and homogenous because the coefficient of variation is less than 10%. The following diagram summarises these patterns.



1. comprehensive	2. controllable	3. time- related	4. accurate
—— financial measures		▬▬ Non financial measures	

The general conclusion from this part might be:

Respondents preferred their performance to be measured in both financial and non financial terms under RPE system rather than in financial terms only. Non financial performance measures outperformed the financial measures in being seen by respondents as: controllable, comprehensive, , accurate and time -related.

3- The next item in the analysis was whether the respondents' performance is currently measured by any/ of a given sample of measures and whether these variables are preferable to be used under an RPE system or not. Table (6.2.10) shows what currently used and preferably used measures. This might help in recognising the gap between what is preferable and what is available regarding the performance measures and also would draw the attention to the measures which would be of concern to the employees under an RPE system.

Table (6.2.10) The preference and availability of various measures

measure	market related measures:			Financial related measures				
	securities	products	factors	budget	profit	revenue	cost	accounting ratios
currently used	3.8	15.4	0	80.8	53.8	26.9	38.5	15.4
preferable	3.8	23.1	3.8	42.3	34.6	11.5	19.2	15.4

Operating measures	creativity	customer care	quality	new markets	HRD	efficiency
currently used	26.9	50	65.4	19.2	30.8	57.7
preferable	34.6	50	50	26.9	26.9	34.6

Table (6.2.10) shows that both the preference and the actual use of market related measures is the lower than the other types of measures. (the financial related and the operational measures). The most preferable measures -respectively- are: meeting budget, quality, efficiency, profit and customer service. This suggest that in reality, employees believe that meeting target is the best measure for their performance and 80% of the respondents agree on that. From the non- financial operational measures, quality and efficiency and customer services are the most measures which employees consider reflective to their work.

Regarding the currently used measures, 50% of the respondents report that, customer service and quality are currently used and below that level of support comes meeting budget where 42% of the respondent suggest it is used.

A comparative review between what is preferable and what is actually used reveal that: only customer service measure meets the expectation of the respondents (as it is preferable by 50% of the respondents and reported to be used by 50% of the respondents as well). After customer service comes quality which is preferable by 65% but reported to be actually used by 50% only, then profit preferable by 53% and usable by 34%, efficiency preferable by 57% but usable by 34% and finally the most preferable measure is meeting target seems to be attached to a big gap in employees expectations where 80% prefer it whereas only 42% report its use.

The summary of this section is that,

There was an approval of financial and operational measures in United Utilities but not for any ~~type of the investigated the performance~~ measures market measures. Also, there was a gap between in the employees' expectations and in United Utilities. The gap

varied from a small gap with customer service, quality to a big gap with the profit measures and this gap increased to constitute almost 50% with the budget measure.

4- Concerning the time span of measures, 53.8% preferred an annual measures, 42.3% for semi annual measures and 3.8% suggested quarterly measured. No response has been given to a monthly monitoring of performance for the purpose of evaluating and rewarding performance.

The Securities Market Measures:

The securities market measures have been examined as a specific type of financial measures. The issues that have been addressed included: whether or not the company actually use market measures to indicate performance, the degree of satisfaction which employees held for these measures, to what extent these measures are considered controllable by employees (comparing to the accounting measures) and if the use of these measures would encourage the response to RPE. Table (6.2.11) presents the descriptive of the inquiry about this item.

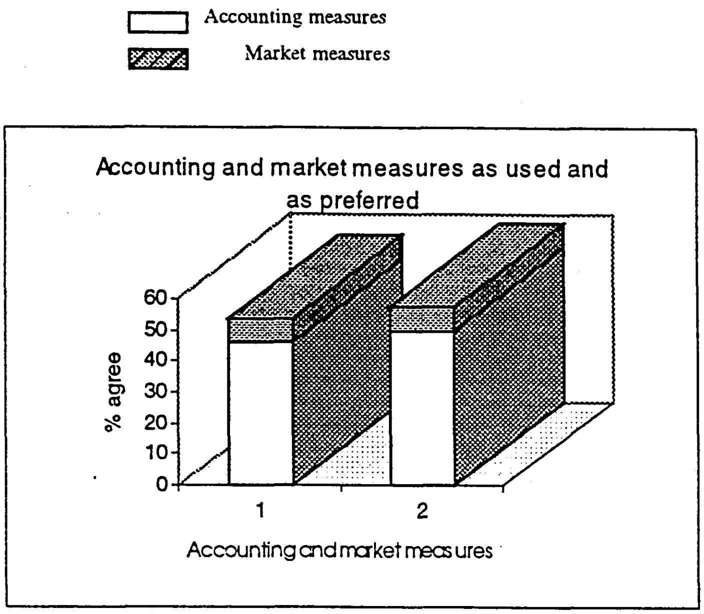
A primarily question was asked about whether the respondents had an actual experience of being monitored by accounting measures and/ or market measures. Table (6.2.11) presents both the respondents experience and preference of accounting and market measures.

measure	the fact of using measures:		preferable measures:	
	accounting	market	accounting	market
approval	50	7.7	50	7.7
mean	1.5	1.08	3.2	2.17
median	2*	1	4	2
Std dev of mean	.509	.282	1.208	1.02
Std dev of error	.104	.058	.242	.215
variance	.259	.080	1.46	1.059
coefficient of variation	5.79	13.5	2.19	2.049

* That was a question about "fact" so it was coded: "2" for yes, "1" for no and "0" for no answer.

As the table shows, 38.4% of the respondents was monitored by accounting measures (and 50% preferred these measures to be used in RPE) comparing to 7.7% had an experience with market measures and equally preferred these measures to be used in RPE. It should be noticed here that the median reflected acceptance of accounting measures and a rejection for market measures.

That is, market measures were reported to be to be - limitdly - used and preferred to be used under an RPE system in United Utilities whereas, accounting measures were used and preferred to be used by half of the respondents. The data about: the fact of being monitored by accounting measures/ market measures, preferring accounting measures or market measures under an RPE are represented in the diagram below.



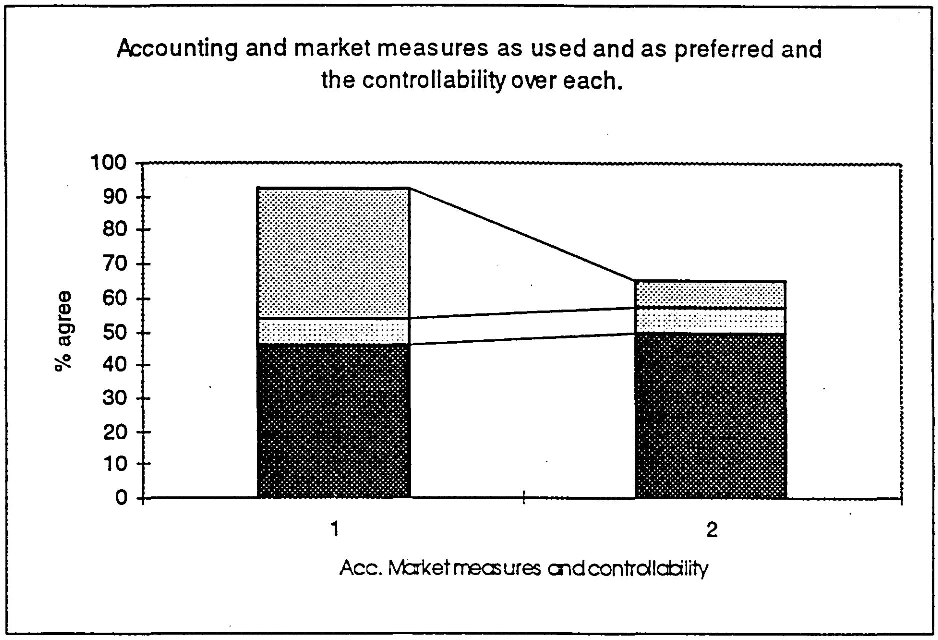
The argument about controllability of accounting and market measures was examined in this enquiry. Table (6.2.12) summarises the data about the controllability over the accounting measures and the market measures and the whether the use of market measures would enhance RPE.

Table (6.2.12) The controllability over accounting and market measures and the impact of using market measures on RPE

measures	Controllability over measures: accounting	market	The use of market measures enhance response to RPE
approval	38.4	7.7	34.6
mean	2.84	1.73	2.76
median	2	1	3
Std dev of mean	1.344	.964	1.2
Std dev of error	.269	.201	.24
variance	1.807	.929	1.44
coefficient of variation	1.57	1.86	1.91

Although United Utilities used RPE to reward top management, when doing so, the company used return on shareholders as a performance measure and the reference group was the FTSE 100. This practice clearly rested on market implications, nevertheless, the participants disapproved that such market-based indicators would be controllable measures. Relatively, respondents saw accounting measures to be more controllable than market measures currently in use in United Utilities for RPE scheme. Only 34.6% of total respondents agreed that using market measures would enhance an RPE system.

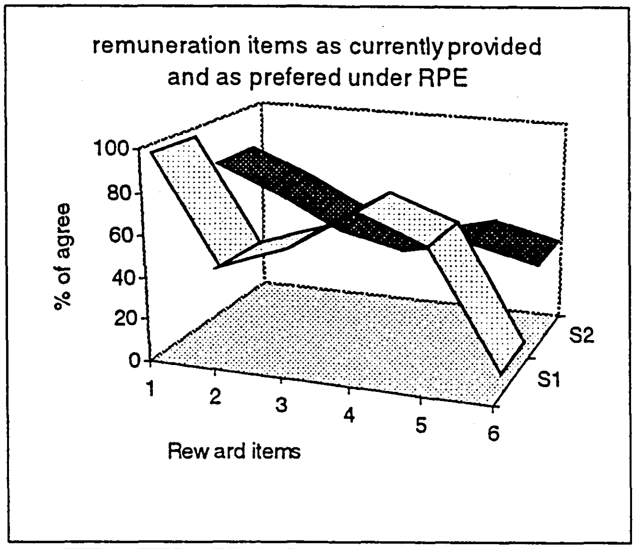
The data about the preferable measures (accounting or market) and its controllability are represented in the figure below.



The summary of the debate about measurements is: Respondents preferred non financial measures more than the financial ones, however, no set of measures was mutually exclusive to the other, then respondents favoured a measurement system which used both to monitor their performance. In the financial group, respondents obviously voted for the accounting measures more than market measures because the latter lacked controllability.

The Form of Reward:

The last item in the survey of the components of RPE is how the reward should be paid. Here the investigation included: a description of the actual pay package which the respondents received, the degree of satisfaction which they felt towards each item, the preferred RPE form of reward and the impact of varying the form of reward on the response to RPE. The following figure summarises the data of the preferred forms of rewards and the current components of the reward packages as reported by respondents:



1. cash	2. shares	3. post retirement benefits
4. holiday	5. medical coverage	6. better working conditions

S1 = Series of items as actually provided

S2= Series as preferable under RPE

The figure shows that the preferable rewards were overwhelmingly dominated by cash (88.5% of total respondents), followed by shares (65.4%), medical coverage and post retirement benefits 50% each while holidays and better work conditions were the least to be supported (42.3% each). Respondents described that their remuneration package in United Utilities to include the following items: Cash (96.2%), holiday (76.9%)), medical coverage (69.2%), post retirement benefits (61.5%), shares (46.2%) and finally work conditions (26.9%).

The two data of the two streams reveals two issues: (1) there was a difference in the relative positions of the items (comparing to each other) and (2) there was a gap between how much was an item preferred and how much it was provided.

Regarding the difference in the relative positions of items to each other, the difference was created by "shares" and "holidays". Respondents reported that shares was their second preferable item, while what occurred was that shares was in the fifth place in the remuneration package, while holidays occupied the second place. Also, in terms of amount, although cash was the first preferable and the first provided item, data showed that it was provided more than wanted, the same as holidays, medical coverage and post retirement benefits. While shares and better work conditions were provided less than wanted.

It should be mentioned here that, the interview data about the reward system in United Utilities revealed that the company paid RPE rewards in two forms together: cash and shares. Given that only senior management -with few number of staff- were entitled to RPE scheme in the company, and only 5 of those individuals participated in this investigation, therefore, this might be a reason behind the relative late position of shares in the currently provided list of items. Regarding the satisfaction of the remuneration package, 69.2% of the total respondents recorded they were satisfied with the current pay systems in United Utilities. The mean and the median as detailed in the table below supported these findings.

Table (6.2.14) The preferable form of RPE reward

measure	Preferable pay package: cash	shares	post-retirement	holiday	medical coverage	better work conditions
approval	88.5	65.4	50	42.3	50	42.3
mean	4.66	4.09	3.65	3.36	3.545	3.4
median	5	4	4	3.5	4	4
Std dev of mean	.565	.944	1.089	1.17	1.184	.905
Std dev of error	.115	.206	.244	.251	.252	.208
variance	.319	.89	1.18	1.38	1.403	.819
coefficient of variation	14.6	4.59	3.09	2.43	2.52	4.15

There is a dominating preference for receiving rewards in cash (88.5%), moderate support for shares (65.4) and average support for medical coverage and post retirement benefits. The holidays and better working conditions presented below average support.

The importance which the respondents would give to each element in an RPE system (i.e the peer group, the performance measures and the form of reward) differed from an item to another. Table (6.2.15) summarises the data about this. It is worthy mentioning here that, respondents were asked to give a percentage -as a portion of 100%- to each item of the three. The items were then proportionate to each other according to the amount of importance given. For example, in Questionnaire 4, the respondent gave:

The comparison group 20%

The performance measures 60%

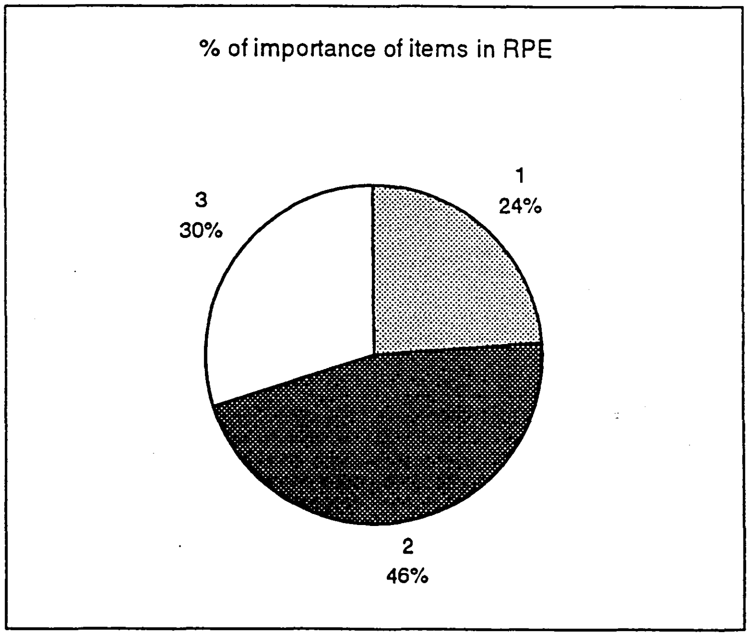
The form of reward 20%

These answers have been translated into: 2: 6: 2 respectively.

Table (6.2.15) % of importance of the various items of RPE scheme

measure	% of importance of the peer group	% of importance of performance measures	% of importance of reward form
Total	52.7	101.2	65.7
Mean	2.7	4.6	3.1
Std Dev	1.48	1.92	1.87

The table shows that the order of the items of the RPE system in terms of importance is: the performance measures, reward from and the peer group (the average importance respectively is: 46%, 31% and 27%) and the comparison is shown in the diagram below:



1. Peers 2. performance mesaures 3. rewards

This suggests that, unlike the theoretical assumption in this research where there is an implicit priority given to the arguments around the influence of the comparison group, then the performance measures and finally the form of reward, the sample of employees who participated in the investigation -and 19% of them are being rewarded under an RPE scheme, show another ranking of these variables which reflect their own concern.

Hence, the theoretical assumption in this research suggests that the ranking of RPE elements is:

the peer group, the performance measures and the form of paying reward

but the evidence from the field work suggests the order of these variables to be:

the performance measures, the form of paying the reward and the peer group.

The evidence collected through interviews with the group manager of compensation and pension in United Utilities agrees with the ranking given by the respondents in the questionnaire survey. A following chapter will discuss the data collected by the interviews.

Section Two: Association and Variation Statistics

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This section will present the details of statistical analyses that have been undertaken. Firstly more than a technique will be used to trace the association among the variables and, secondly more than a technique will be implemented to draw the variation among the companies and the managerial levels. It should be noticed that the analyses will be carried out on the whole sample of data. Also, the presentation will start from the correlation, if evident, the regression will draw the shape of the relationship among the variables. Following that, one -way ANOVA will be used to test whether there are significant differences among the companies and the managerial levels regarding each variable. Chi-square will be used to support the former test.

Applying These Tests on the Data:

Presenting the various tests undertaken on data will follow the line of inquiry of this research. The arguments will be divided into:

I: The perspective of RPE:

This will include test for the proposed roles of RPE, the behaviour derives which it triggers and the suitability to managerial levels.

II: The contingents of RPE:

This will examine the arguments about target level in a group, the performance measures in another group, the market measures as a special case of measures in a third group and finally the reward form in a group.

Section One: The perspective of RPE

Correlation:

The test includes studying the correlation between employees' response to RPE in one hand and the objectives from work which individuals generally seek to satisfy (e.g getting money, esteem, doing outstanding work, personal satisfaction and promotion) on the other hand. This is will also be integrated by a test for the association between the motivational and monitoring roles of RPE and the needs which RPE was theoretically proposed to satisfy (i.e gaining money through competition, gaining social recognition as seen as a hard working person or both). The idea behind the last inquiry is not only tracing the relationship between the two major variables but also testing the relative importance of each need. That is: would employees response to RPE in order to gain money or/ more to/ than to gain social recognition, the likelihood that employees might be concerned to gain money and recognition together through RPE will also be explored. It should be highlighted here that the critical value of correlation for the sample sized 26 is .36 and the classification of the correlation coefficient would be:

Below .36 is a weak association (i.e items unlikely associated)
Between .36 and .52 is likely association
Between .52 and .68 is moderate correlation
Between .68 and .84 is a strong association
Between .84 and 1 is a very strong correlation
It should be recognised that, in all tables which present statistics in this report:

1. % of agree = % of respondents who agree and strongly agree to total respondents
2. correlation are calculated between a variable and RPE by Spearman correlation coefficient
3. sig** = p= .05
4. sig* = p=. 10
5. all correlation relationships should be assumed positive unless otherwise specified

Table (6.3.1) Spearman coefficient for RPE, behaviour derives and RPE roles

variable	RPE
Objectives from work: money	weak non sig
esteem	weak non sig
doing outstanding work	likely sig*
personal satisfaction	negative weak non sig
promotion	weak non sig
Objectives from work which RPE could satisfy	
money	**moderate sig****
social recognition	**moderate sig****
both money and social recognition	**moderate sig****

* the correlation coefficient is .31 and the significant level is: 6%

Concerning RPE:

The Correlation:

Table (6.3.1) presents that, among the objectives from work, RPE was correlated to doing outstanding work only. This was a combined effect of motivation and monitoring being individually almost correlated with doing outstanding work. The lack of correlation between RPE and money and esteem (although they were targeted by 100% and 76.9% of the respondents respectively) suggests that: employees targeted money and esteem generally from work but they did not see that RPE could provide these items. Chi- square test supports this result as well, where there was no evidence on significant dependence (at p= .05) between RPE and the objectives from work except for with "doing outstanding work" where the distribution of RPE could be dependent on the distribution of "doing outstanding work".

On the other hand, RPE was moderately and significantly correlated to all the objectives which it was proposed to satisfy (i.e gaining money, esteem and both money and esteem). This predicted that if employees respond to RPE, they would seek to gain firstly both money and esteem, secondly to gain money only and thirdly to gain esteem only. Chi-square test provided another evidence to this finding as it showed a significant dependency between the distribution of RPE and the distribution of: the employees' desire to gain money through competition, to gain social recognition and to gain both money and social recognition through RPE. The shape of the relationships which the correlation suggests are traced by multiple regression as follows.

Regression:

Expanding the test about RPE and its potentials, because correlation has proved a relationship between RPE and objectives from work and with behaviour derives. The outputs of the regression model includes the following:

Multiple R: measures the influence of the set of independent variables on the deponent variable.

R Square: is the determination coefficient which shows the % of change in the dependent variable due to a unit change in the independent set of variables.

B: is the regression coefficient which predicts the amount (and direction) of change in the dependent variable due to a unit of change in the independent variable.

Beta: can be used to classify the independent variables according to each's influence on the dependent variable.

Significance of F: points at the model's fit. If F is < .05, the regression is significance at 95% confidence level and the vice versa.

Significance of T: provides the significance of each independent variable individually if > .05 and the vice versa.

The following table summarises the regression analysis for the relationship between RPE and objectives from work and the needs which RPE satisfies.

Regression coefficients for RPE and objectives from work

When the regression for RPE and all objectives from work was done, the resulting model was non significant. Therefore, the regression was done for RPE and doing outstanding work only which was shown above to have a likely significant association, the results are shown in the table below:

Table (6.3.2) Regression coefficients for RPE and doing outstanding work

Variable	B	Beta	significance of T	Classification
Objectives from work: doing outstanding work	.95	.33	.10	significant individual impact at 90%
Multiple R		33		
R square		11		
significance of F		.10	regression is significant at confidence level 90%	

The regression predicts that regarding RPE and the employees' desire to do outstanding work, 33% of the influence in the first is due to the latter. The model was significant at confidence level of 90%.

Regarding the behaviours' derives which RPE was proposed to trigger i.e money and recognition, the following regression provides the details of the influence.

Regression of RPE and the objectives which it can satisfy

Variable	B	Beta	significance of T	Classification
RPR provides recognition	.393	.168	.597	non sig. individual impact
RPE provides money	1.35	.734	.07	sig. individual impact at 90%
RPE provides both money and recognition	-.54	-.219	.57	non sig. individual impact
Multiple R .68				
R square .47				
significance of F .04	regression is significant at 95%			

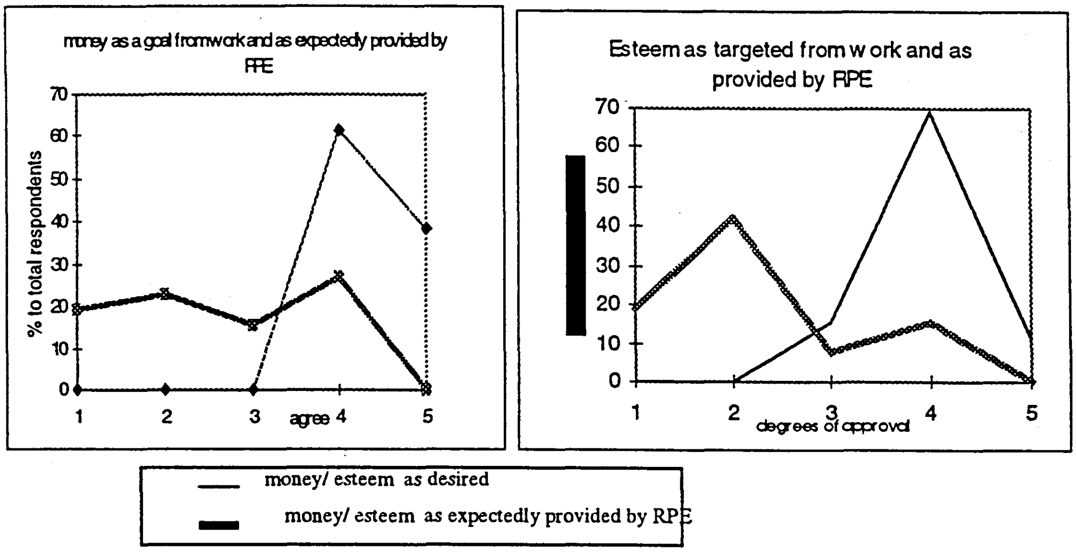
The table showed 68% of the influence on RPE was practised by the employees' inclination to gain money, esteem and both money and esteem. The individual contribution by each item was not significant at 95% but the interactive effect of the three items together was significantly influential on RPE at 95% confidence interval.

ANOVA test shows no differences among managerial levels regarding RPE, its motivational and monitoring roles. However, there are significant differences among managerial levels regarding promotion as objectives from work. Following are the frequencies.

Various degrees of support from managerial levels to "promotion" as a goal from work

measure	Managerial levels middle	top	executives
% of approval to total participants in that level	50%	85%	100%
total participants in each level	2	16	8
total participants	26		

Given that 92% of the participants in this research belonged to the top management level (managers, corporate managers or executives), and only 8% individuals (2 out of 26) represented lower management, it might not be surprising that there was low support from the middle management to the inclination to get promoted. That is, this result might partially stemmed from the limited number of respondents from the lower managerial levels. Therefore, caution should be taken in developing any conclusions from this point. Another point to show here is that, there was a difference between the extent to which employees sought money and esteem and the degree to which they excepted RPE to satisfy these objectives. The differences are presented in the figures below.



The two diagrams show that the respondents desire to gain money and esteem was higher than their expectation about what can RPE provide with this respect.

Section Two: The contingents of RPE

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The contingents which were investigated in this research included: peer group, performance measurements and rewards. Each of those items will be analysed in this part.

I: RPE and the different peers

In this section, the correlation and regression of various relationships will be explored including:

- RPE and the preferable peers
- RPE and the perceived difficulty to compete with the different peers
- The preferable peers and the perceived difficulty to compete with those peers
- The perceived difficulty to compete with t peers and the reactions to that difficulties

First: RPE and the preferable peers

Spearman correlations between RPE and the preferable peer group and the difficulty of each peer group are presented in the table below.

Table (6.3.7) Spearman correlation coefficients of RPE and the preferable peers

variable	RPE
The preferable peers belong to:	
same company	weak non sig
same industry	weak non sig
same region	**moderate and sig****
top 100 company	**moderate and sig****

* *p= .05

Regarding the various peer groups, the table showed that there was a moderate significant correlation between RPE and peers from the same region. This likelihood increased with peers from the top 100 companies. This suggested under RPE, employees would likely be motivated to spend more effort when the comparison group belonged firstly to the top 100 companies, then to companies in the same region. This is consistent with the actual practice of United Utilities which uses RPE to reward senior managers by comparing performance to the performance of the FTSE 100. Also this shows that the employees in United Utilities might have a high level of aspiration.

Regression:

When the regression model was applied for RPE and all the peer groups, and for RPE and only peers from the same region and the top 100 companies, both models were significant. Following are the details of the regression of RPE and all the peer groups:

Table (6.3.2) Regression coefficients between RPE and the preferable peers

Variable	B	Beta	significance of T	Classification
Peers: from the same company	1.94	.319	.122	non significant individual impact
from the same region	-.246	-.097	.72	non significant individual impact
from the same industry	-.746	-.422	.07	significant individual impact*
from top 100 companies	1.89	.98	.005	significant individual impact**
Multiple R .79				
R square .626				
significance of F .004			regression is significant**	

The regression shows that the peers set of variables ~~led by peers from top 100 companies~~ was responsible for 79% of the change in RPE. The model was significant at p= .05. The parameters of the correlation shows that, there was a combined effect of two variables was generated mainly by the top 100 companies which participated by the biggest contribution in this model (as Beta = .68 and the relationship was significant). ANOVA test predicts that there were no difference among the managerial levels regarding the preferable peer group. This shows a general tendency of agreement among the managerial levels.

Second: RPE and the difficulty related to each peer group:

Spearman correlation coefficients for RPE and the difficulty which participants allocated to competing with each peer group, revealed non significant associations, as the following table presents.

variable	Correlation to RPE
The difficulty of each peer group:	
difficulty of peers from the same company	**moderate sig****
difficulty of peers from the same region	weak non sig
difficulty of peers from the same industry	unlikely, sig at 90%*
difficulty of peers from the top 100	**moderate sig****

* correlation coefficient was = .29, p= .10

Table (6.3.7) above shows a correlation which was moderate in strength, significant in type between'RPE and difficulty to compete with peers from the same company and the top 100 companies. This means, the more difficult the competition with peers from the same company and the top 100 companies, the more RPE would be motivating to employees. The regression was significant at 95% and the details in the table below.

Table (6.3.3) Regression of difficulty of various peers on RPE

Variable	B	Beta	significance of T	Classification
difficulty to compete with peers from:				
the same company	1.043	.388	.09	significance impact at 90%
the same industry	-.461	-.150	.54	non significant
top 100 companies	1.024	.452	.07	significance impact at 90%
Multiple R	.605			
R square	.367			
significance of F	.05	significant impact of the whole group		

Employees' reactions and target's difficulty:

The following table presents the correlation between possible reactions to target difficulty and the difficulty which participants associated to each target.

Correlation between target difficulty and reactions to that difficulty

Types of difficulty	Employees' reactions to difficult targets: continue to respond positively	negotiate changes	ignore the system	work against the system
difficulty to compete with peers from same company	weak non significant	weak non significant	weak non significant	negative likely sig*
difficulty to compete with peers from same region	**likely significant****	**negative likely significant****	negative weak non significant	negative weak non significant
difficulty to compete with peers from same industry	0	negative weak non significant	negative weak non significant	negative weak non significant
difficulty to compete with peers from top 100 companies	weak non significant	negative weak non significant	negative weak non significant	0

** p= .05   * p= .10

Table shows that weak and non significant correlation at p= .05 between all possible actions and the different degrees of difficulty with two exception. First, to continue to respond positively had a positive correlation with the difficulty to compete with peers from the same region, this correlation turned to be negative and significant when the action was to negotiating changes in the system . This meant that, the more difficult it was to compete with peers from the same region, the more possible that employees would continue to respond positively and less likely that they would negotiate changes in the system. The likelihood of that was 95%. Secondly, there was a negative likely correlation between difficulty to compete with peers from the same company and working against the system. This meant that the more difficult it was to compete with peers from the same company, the less likely that employees would react by working against the system. That likelihood of that relationship was 90%. These two points together sustain the previous finding that peers from the same company and the same region were the preferable type of competitors to the participants from United Utilities.

II: RPE and the performance measurements

In this section, three main themes will be examined: first; the relationship between RPE and using financial measures in one hand and the financial and non financial measures together.

Second, it will be explored to what extent the financial measures enjoyed the features of performance measures in the respondents' view and the relationship between the features of financial measures and RPE. Third, the previous arguments will be analysed with relation to non financial measures.

I: RPE and using financial measures only vs. financial and non financial measures

Spearman correlation did not show a significant correlation between RPE and preferring financial measures only nor preferring both the financial and non financial measures. However, the correlation shows a likely significant correlation between preferring the financial only measures and preferring both financial and non financial in the control system. It was an interesting result that the correlation reached a moderate level (coefficient .49) and was significant at confidence level of 90%. The regression of this relationship was also significant and Multiple R = .46.

2. Preferring financial measures only, the features of financial measures and RPE

Table (6.3.10) shows the correlation between preferring financial measures, features of financial measures and RPE.

Table (6.3.6) Spearman correlation between preferring financial measures only, features of measures and RPE

Features of financial measures	Correlation with: Preferring financial measures	RPE
Comprehensive	**moderate sig****	weak non sig
Controllable	likely sig* (at p= .06%)	weak non sig
Accurate	weak non sig	weak non sig
Time -related	**likely sig****	likely, sig (at p= .08)

Spearman correlation predicts that there were a moderate and significant correlation between preferring financial measures and those measures' being comprehensive, with a less correlation coefficient for being controllable and time related, although still significantly likely at 90%. This suggested that respondents of United Utilities preferred financial measures because they saw them comprehensive, controllable and time related.

With regard to RPE, there was no significant relationship (at 90%) between RPE and any of the features of financial measures. The only correlation which was near to the critical value of correlation was between RPE and financial measures' time - related. The positive, almost likely correlation suggested that the response to RPE might increase when financial measures were used because they were seen as time - related indicators. This association has a likelihood of 92%.

3. Preferring both financial and non financial measures, the features of financial and non financial measures and RPE

The following table provides the correlation between preferring both financial and non financial measures to be used in RPE and the features of each type of these measures in one hand and RPE on the other hand:

Correlation between preferring both financial and non financial measures, the features of each type and RPE

Features of measures	Preferring both financial and non financial measures	RPE
comprehensive: financial non financial	 weak non sig. **moderate sig.****	 weak non sig. weak non sig.
controllable: financial non financial	 likely sig.* **moderate sig.****	 weak non sig. weak non sig.
accurate: financial non financial	 likely sig.* likely sig.*	 weak non sig. weak non sig.
time related: financial non financial	 **moderate sig.*** weak non sig.	 likely sig.* weak non sig.

* p= .10

The correlation also suggested that preferring both financial and non financial measures was because the non financial side was seen: individually comprehensive, controllable whereas the financial side was considered time related type of measures. Non of the two sets of measures were judged to be accurate (at a confidence level 90%). However, both were reported to be likely accurate at confidence level 90%. RPE had weak non significant associations with the features of the two types of measures at 90%.

Nevertheless, the regression model of preferring both financial and non financial measures and the features which each type enjoyed -individually- was significant and non financial measures' controllability had the only significant individual impact on preferring both financial and non financial measures.

RPE and the Securities market measures:

The securities market measures have been investigated as a specific type of financial measures. The analyses of data about this debate starts by Spearman correlation and provides results which might be contradictory with the theoretical assumption. The following table presents the correlations.

Correlation between RPE, preferring accounting/ market measures and controllability over these measures

Preferring accounting or market measures and their controllability	Correlation to RPE	correlation to Preferring: accounting measures	market measures
preferring accounting measures	weak non significant	1	likely significant*
preferring market measures	likely significant*	likely significant*	1
accounting measures' controllable	weak non significant	**strong, absolutely sig****	weak non significant
market measures' controllable	**likely significant****	**likely significant****	**strong, absolutely sig****

** p= .05   * p= .10

A number of observations could be made from the table above. Firstly, there was no significant correlation between RPE and respondents' preferring accounting measures at 95%. However, there might be a correlation between RPE and preferring market measures, the correlation coefficient was .27 with a probability p= .10 while the critical value of correlation for the sample in hand was .36. accounting measures or controllability of market measures. The regression was non significant for that relationship. Secondly, RPE was holding a positive, likely and significant association to controllability over market measures. This suggested that, the more controllable market measures were, the better motivating RPE could be. However, the regression models of RPE and market measures' controllability individually and with accounting measures' controllability, both were non significant at 90% and 95%.

Thirdly, regarding controllability over measures and preferring specific measures', Spearman correlation indicated that there was a strong and absolutely significant correlation between controllability over accounting measures and preferring accounting measures and the same with controllability and preferring market measures. It meant that the more controllable accounting and market measures were, the more likely that employees would prefer them to be used in RPE schemes. This relationship is absolutely significant (100% confidence) in the data. A point of consistency in the data should be recognised here, because earlier, data revealed that there were a likely to moderate correlation between controllability over financial and non financial measures and preferring each of these measures. That suggested then that, controllability over measures was one of the reasons because of which, respondents preferred a specific type of measures.

Preferring specific measures (accounting or market) and preferring specific peer group

The debate extends further in this point to discuss if there is any possible correlation between preferring accounting or market measures, the controllability related to each all in one hand and employees' preferring specific peer group to compete with. For example, would employees prefer accounting measures if they are compared internally with peers from the same company? The following table provides the correlation coefficients:

Correlation between peers, preferring accounting/ market measures and

Preferring accounting or market measures and preferable peers	Correlation to Preferring accounting measures	Correlation to Preferring market measures
peers from the same company	negative weak non sig.	negative weak non sig.
peers from the same region	negative weak non sig.	weak non sig.
peers from the same industry	likely significant*	weak non sig.
peers from top 100 companies	weak non sig.	**likely significant****

** p= .05 * p= .10

The correlation above shows a likely significant association between preferring to compete with a peer group from the top 100 companies and preferring to be measured by market measures. This points at a consistency of the orientation of the respondents because it meant that, if an external, market- related peer group was used, the performance was sought to be measured by market- related measures as well. accounting measures were preferred when the comparison was held with a peer group from the same industry where the correlation coefficient is (.31) near the critical value (.36) and the probability of this is .07.

III: RPE and the form of reward

The inquiry was directed to an investigate whether the respondents would prefer to receive the RPE reward in cash, shares, holiday,...etc. This question was assumed to provide a direct measure for the preferable form of reward under an RPE scheme and also it examined whether varying the form of reward might impact on RPE. The following table displays the correlation between preferring a specific type of reward and RPE and managerial level.

Correlation between RPE, managerial levels and preferable form of reward

measure	Correlation with RPE	Correlation with managerial level
RPE in cash	weak non sig	weak non sig
RPE in shares	negative weak non sig	weak non sig
RPE post retirement benefits	negative weak non sig	weak non sig
RPE in holiday	weak non sig	Likely and sig*
RPE in medical coverage	weak non sig	weak non sig
RPE in better work conditions	negative weak non sig	weak non sig

* p= .059

The table shows that there was no significant correlation between RPE and receiving the RPE reward in a specific form. Chi- square test supported this result where the distribution of RPE was found significantly independent on any of the distributions of the preferable form of reward. This indicated that, the form of reward was not an influential item in the debate around RPE.

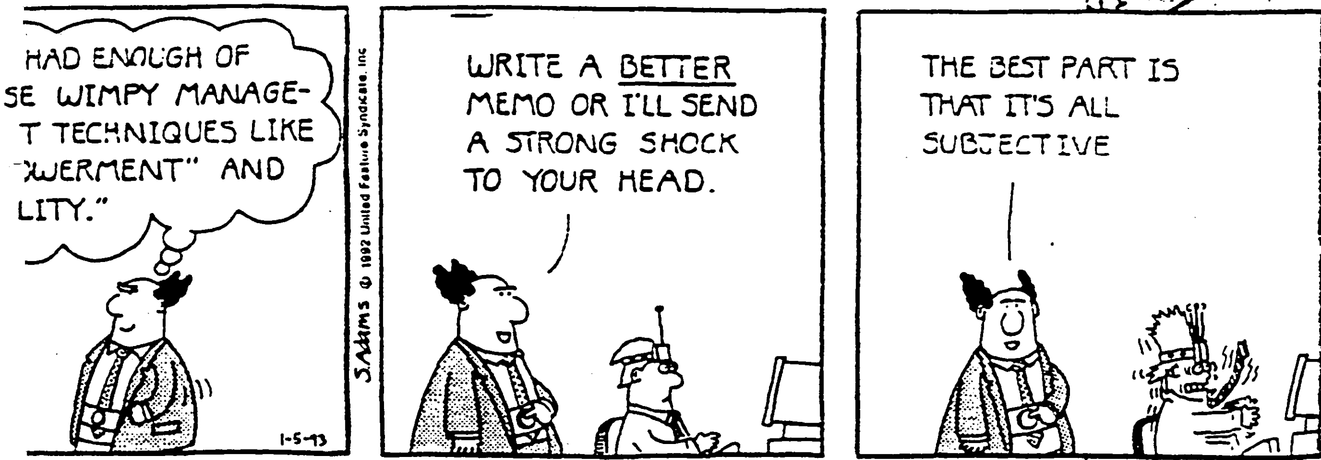
Receiving the RPE reward in form of holidays was the only form which has a likely and significant correlation with managerial level. The positive correlation here suggested that, the higher the managerial level was, the more employees would tend to prefer RPE reward in form of holidays but the regression model of this relationship was non significant at p= .05.

Considering the relationship between RPE and the satisfaction with remuneration package {if any} and the managerial levels, Spearman correlation predicts no significant correlation between employees' feeling satisfied or non satisfied and RPE, nor between managerial level and the satisfaction with remuneration package.

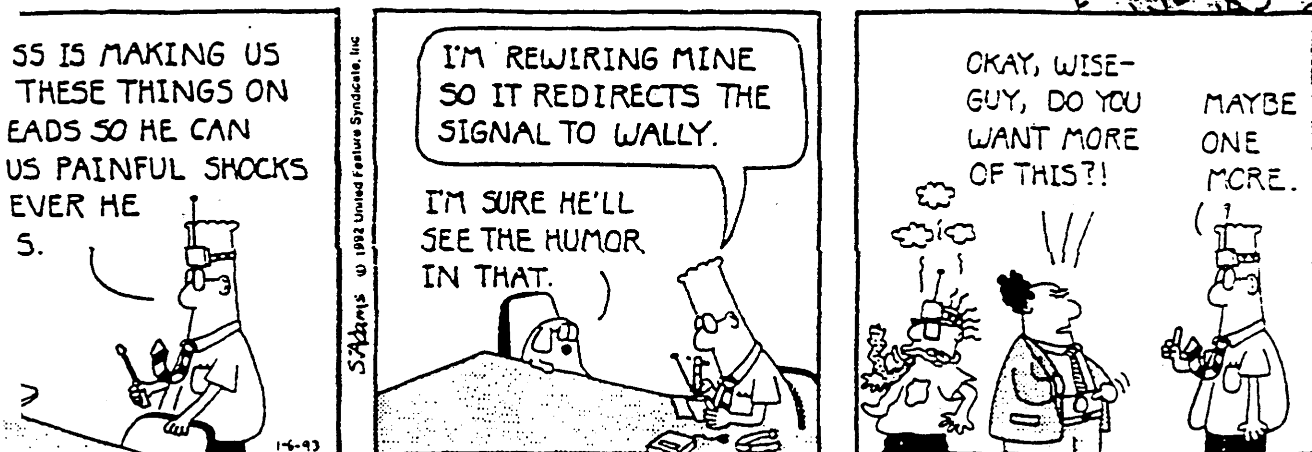
This leads to a conclusion that: for United Utilities data, RPE was influenced by the peers only and neither the financial or non financial measures nor the form of rewards had associations to it.

Appendix (B-5)

Copy of a "Cartoon" received with the questionnaire of a respondent of United Utilities.



It must be frustrating to be a boss and not have the option of hurting employees.



s is based closely on real life, except the fighting.