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Recruitment of post graduate business managers within SMEs: An exploratory investigation into growth.

GRAFTON, Peter.

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SHEFFIELD HALLAM UNIVERSITY

BUSINESS SCHOOL

DOCTORATE IN BUSINESS ADMINISTRATION

Thesis

Recruitment of Post Graduate Business Managers within SMEs:

An exploratory investigation into growth.

Peter Grafton

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Contents

ABSTRACT.....	7
CHAPTER 1 SMES, GROWTH AND MANAGEMENT; AN OVERVIEW.....	9
1.0 INTRODUCTION.....	9
1.1 ABOUT THIS THESIS	10
1.2 BACKGROUND INFORMATION, SCENE SETTING.	13
1.3 RESEARCH AIMS AND CONTRIBUTION TO KNOWLEDGE	15
1.4 RATIONALE	17
1.5 STRUCTURE OF THE THESIS.	19
1.6 ETHICS	20
1.7 SECTION OVERVIEW AND RE-CAP	21
CHAPTER 2 A REVIEW OF THE LITERATURE SURROUNDING UK SMES AND GROWTH.....	22
2.0 INTRODUCTION TO CHAPTER 2	22
2.1 SMES.....	23
2.1.1 <i>What constitutes a Small and Medium Enterprises (SME)?</i>	23
2.1.2 <i>SMEs The role and importance of SMEs in the economy</i>	25
2.1.3 <i>Contemporary management within the SME</i>	29
2.1.4 <i>SME legal status, ownership and structure and the impact on performance</i>	32
2.1.5 <i>SME The Family Business</i>	36
2.2 LEARNING THEORY	41
2.2.1 <i>How we learn</i>	42
2.2.2 <i>Learning Theory and the relevance to this thesis</i>	46
2.3 MANAGEMENT THEORY, TEACHING AND THE CURRENT DEBATE.	48
2.3.1 <i>Education</i>	48
2.3.2 <i>The Professional business manager, SMEs and performance.</i>	54
2.3.3 <i>Management competence and training</i>	55
2.4 BUSINESS STRATEGY	57
2.4.1 <i>The divisions of a strategically planned business</i>	58
2.4.2 <i>Strategy; The 14 tools explored</i>	66
2.5 SME GROWTH, EDUCATION AND TRAINING	74
2.5.1 <i>Growth</i>	74
2.5.2 <i>Training and education</i>	77

2.5.3 SMEs, growth, the reasons behind it and the measures employed.....	86
CHAPTER 3 RESEARCH DESIGN AND METHODOLOGY.....	89
3.0 INTRODUCTION TO THE SECTION.....	89
3.1 METHODOLOGY; PHILOSOPHICAL POSITIONING	89
3.2 DATA COLLECTION; WHAT, HOW, WHO AND WHY.....	105
3.2.1 Surveys, the chosen method and guiding principles.....	107
3.2.2 Interviews, the guiding principles and adoption reasoning.....	108
3.2.3 The questionnaire questions	110
3.2.4 Validity and Reliability.....	113
3.3 APPLICATION OF THE CHOSEN METHODS	118
3.3.1 Sample Audience.....	118
3.3.2 Sample sizes and Response Rates.....	118
3.3.3 The Pilot study, problems and solutions.....	120
3.3.4 Interviews.....	123
3.3.5 Data analysis	126
3.3.6 A summary of the Methodology employed.....	129
CHAPTER 4 RESULTS OF THE STUDY AND EMERGING THEMES.....	129
4.1 CHARACTERISTICS IDENTIFIED BY INTERVIEWEES.....	129
Table 4.1 Key personal and business characteristics identified by interviewee 's.....	130
4.1.1 Characteristics discussion.....	133
4.2 RESPONSE RATES AND FINDINGS	134
4.2.1 Low Response Rates	138
4.3 ABOUT YOUR BUSINESS.....	139
4.3.1 Question 1 – Business trading sector...have I captured the target audience?.....	139
4.3.2 Age of the business.....	140
4.3.3 Business status; type/ownership/family business?	142
4.3.4 Employment levels, turnover and profit	148
4.3.5 Correlation	153
4.4 THE PGB QUALIFICATION.....	155
Chart 4.4.1 Total number of actual respondents who hold PGB qualifications within the senior team.....	155
Chart 4.4.2 Team Members with PGB qualification.....	156

<i>Chart 4.4.3 Did you have work experience prior to undertaking the PGB qualification.</i>	156
<i>Table 4.4.3 Work experience prior to obtaining PGB qualification.</i>	157
<i>Chart 4.4.4 Number of years' experience.</i>	158
<i>Chart 4.4.5 Years PGB qualification held.</i>	159
<i>Chart 4.4.6 Number on Senior Management Team, with and without PGB</i>	160
<i>Table 4.4.6 Size of Management Team – Post Graduates</i>	161
4.5 BUSINESS STRATEGY	162
<i>Tool 1 Documented Strategic Plan</i>	163
<i>Tool 2 Annual Appraisal for all staff</i>	165
<i>Tool 3 Vision Statement</i>	167
<i>Tool 4 Mission Statement</i>	168
<i>Tool 5 Core Values</i>	170
<i>Tool 6 Marketing Plan</i>	172
<i>Tool 7 Sales Meetings</i>	174
<i>Tool 8 KPI Indicators</i>	176
<i>Tool 9 Monthly Reports</i>	178
<i>Tool 10 Cash Flow Analysis</i>	180
<i>Tool 11 Liquidity Ratio</i>	182
<i>Tool 12 ISO 9001</i>	184
<i>Tool 13 ISO 14001</i>	186
<i>Tool 14 Activity Based Costing</i>	188
4.6 SUMMARY OF TOOLS EMPLOYED	190
4.7 SIGNIFICANT CHANGE	191
4.8 BUSINESS GROWTH AMBITIONS	192
4.9 PGB EDUCATION	195
4.10 SUBSIDIARY BUSINESSES	199
<i>4.10.1 Subsidiary businesses; Numbers employed;</i>	200
<i>4.10.2 Subsidiary businesses; Turnover;</i>	201
<i>4.10.3 Subsidiary business; Profitability;</i>	201
<i>4.10.4 Summary; Numbers employed, Revenue Turnover and Profitability.</i>	201
<i>4.10.5 Subsidiary Business characteristics</i>	202
4.11 QUANTITATIVE FINDING SUMMARY	206
4.12 DISCUSSION	207

CHAPTER 5 RESEARCH CONCLUSIONS	237
5.1. RESEARCH AIMS AND OBJECTIVES	237
5.2. CONTRIBUTION TO PROFESSIONAL KNOWLEDGE.....	240
5.3. CONTRIBUTION TO PROFESSIONAL PRACTICE.....	245
5.4 CONCLUSION	248
5.4.1 CONCLUDING PERSONAL STATEMENT	250
REFERENCES.....	251
APPENDICES	268
APPENDIX 1 NATIONAL BUSINESS SURVEY: IMPACT OF POST GRADUATE MANAGEMENT WITHIN SMES	268
NATIONAL BUSINESS SURVEY: IMPACT OF POST GRADUATE MANAGEMENT WITHIN SMES.....	268
1. About your business.....	268
2. Your Post Graduate Education.....	270
3. Post Graduate Education and your Business	271
4. Business Strategy.....	272
5. PGB Education in Business	274
6. Business Finances.....	275
7. Your Details	276
APPENDIX 2 NOMENCLATURE STATISTICS.....	277
APPENDIX 3 THE RT HONOURABLE JOHN HAYES MP	279

Abstract

“The economic significance of the Small and Medium Enterprise (SME) business sector in generating income and sustaining employment has been recognised by successive UK Governments since the 1960s,” (Jayawarna, 2003:4). Despite the government’s recognition of the importance to our economy of this business sector, there has been relatively little research commissioned regarding the importance of the educational level of managers employed to manage this business sector, alongside outlining the challenges facing SMEs that are committed to a strategic path of growth.

This thesis sets out to explore the complex characteristics surrounding UK manufacturing SME growth, with specific focus on education with particular focus on managers who hold a Post-Graduate Business qualification (PGB). A quantitative survey and qualitative interviews converge to explore characteristics surrounding the businesses under investigation. Educational qualifications differentiated the two management groups explored, one management group hold a PGB qualification the other does not. Purposeful sampling was utilised to ensure the sample businesses met specific criteria, based on location, business size and trading sector. Statistical and thematic analysis are utilised to examine the collated data.

Results highlight that the PGB qualification holders achieve improved business results when results are measured using typical growth measures; revenue generation, profit and numbers employed. The results demonstrate that the theoretical under-pinning of this thesis is strong. The PGB holders realise improved results. The conclusions focus on several key areas; improved business results, access to education, staff retention, educational clubs, subsidiary businesses, key performance indicators, enhanced self-esteem and confidence, reflective learning alongside the need, or not, to generate profits. The research identifies that managers

who do not hold a PGB qualification can lack confidence. Employees that attain PGB qualifications often advance their careers and find new employment. PGB appear to be valued to those that hold them but not necessarily to those that do not. SME managers are fully conversed with the deployment of a vast array of strategic business tools, irrespective of the qualifications they hold.

This research contributes to knowledge in several ways, to include; adding weight to the debate surrounding the appropriateness of the current PGB curriculum, the relevance of management experience prior to undertaking a PGB qualification, family businesses and their employment strategies, and finally the researcher's personal knowledge and understanding about UK manufacturing SMEs. The outcomes of the research combine to form a creative framework, referred to as the "Grafton Gearbox" the functionality of the gearbox is detailed in chapter five. The research concludes by recommending improved training routes for governments to explore, these new routes engage business owners more favourably to realise improved performance from our nation's SMEs.

Chapter 1 SMEs, Growth and Management; an overview.

1.0 Introduction

This thesis identifies specific business metrics achieved by UK SME manufacturing managers who hold PGB qualifications and measures them against managers who do not hold a PGB qualification, hereafter referred to as business managers (BM). The thinking behind the research is that PGB holders should be out-performing business managers who do not hold the PGB qualification. The research collates and analyses data that is commonly associated with business growth; numbers employed, revenue generation and profitability. The research identifies and monitors the effect of variables, which, as highlighted in the literature, are known to influence SME business performance and growth results. These variables, which are covered extensively in chapter 2, include; Legal status, ownership structure and the family business, management theory, teaching and education, the professional business manager and management competence, business growth and finally business strategy and the strategic tools employed.¹ Learning theory is also explored in chapter 2; an important aspect to this thesis is to identify how managers who do not hold any formal PGB qualifications learn their trade.

Storey and Westhead (2007) highlight there is a dearth of literature surrounding SME growth, as SME growth is a difficult topic to research; the small nature, number of variables, involvement of family and spread of business all accentuating the difficulty. Much of the literature in this field is now quite old, you will notice that many of the references are dated. I intend to strengthen this area of research by adding new information. This new information will add to, and strengthen, some aspects of the current academic debate surrounding teaching managers at PGB level. Henry Mintzberg (2005) is heavily involved and opinionated on this debate, Mintzberg argues that trying to teach management to people who have never practiced management is worse than a waste of time, it demeans management. Some academics agree with Mintzberg's view, others disagree, see (Holstein, 2005; Tsurumi, 2005), the debate is further detailed within the literature review.

¹ Many of the strategic tools arise from QAA Benchmarks, 2013.

Chapter one is structured in a way to give the reader a comprehensive understanding of the thinking behind the research, the researcher, the sector in which the research is undertaken, alongside the background and rationale surrounding the work. The current academic debate concerned with the subject matter is discussed and the fundamental research aims are outlined. The method in which the questions are answered is then set out. The contribution to knowledge is elucidated, this highlights who can take benefit from this research and how the research can positively benefit the UK economy.

1.1 About this thesis

I am a 47 years old Managing Director of a UK based manufacturing SME, I have over 20 years of experience in this sector. Over the last 8 years I have worked with two fellow directors to grow our business. This has been achieved through what has arguably been one of the worse economic periods that our country has ever witnessed. If you had told me this 30 year ago, having left school at the age of 15 without a qualification to my name, I would have laughed. I believe the reason behind my career development and the results that the team I manage have achieved is one of education, with specific focus on the PGB qualification, normally, but not solely, the MBA. Many UK SME business managers do not hold a formal management qualification, fewer still have a PGB. My experience leads me to think that if more managers held PGB qualifications then our nation's SMEs would employ more people, manage increased revenues, and make more profit. This is by no means a shallow thought, if proven to be correct then the economic effect on our nation could be significant.

With over 100,000 PGB students graduating every year, (Deans Digest, 2014) this thesis sets out to explore the net results PGB managers achieve within the set parameters. The information, gathered via a descriptive survey and semi-structured interviews, collated over the length and breadth of the UK throughout 2012-2014, will provide an improved understanding of how SME manufacturing businesses perform. All aspects that are identified as having a positive effect on the performance of this business sector are actively promoted to help UK SMEs further improve their performance results.

My thinking is that a change towards a more formal university based training schedule² will improve SME business results and help ensure that our country tops the global league in terms of manufacturing SME performance. These are my ideas, based on my experiences, this thesis sets out to explore my ideas and my experiences further.

“Education, education, education, then and now the key to the door of Britain's future success.” (Tony Blair, 2005)

As a nation, I feel we need to work to keep Britain “Great.” If our nation is to stay ahead of the pack, then we need to continue to break down the barriers placed in front of us to maintain our position at the forefront of globally developed nations. Our “Great” nation needs to continue setting the bar at new heights. Like Blair (2005), I think a strong education can contribute to helping our nation achieve more.

As the business world becomes ever more global, interconnected, hyper-competitive, and fast paced, dealing with increasing competing demands, contradictions and opposing tensions becomes more prominent (*Harvard Business Review*, 2011:11; Smith et al., 2010). The world is getting smaller³, with an ever-increasing pool of global business competition coming from emergent nations, who, are becoming even more of a technological threat to the UK's economy. Our nation's army of SMEs can be utilised to fight and defend our country's position at the forefront of global economic achievers. A well-educated growing SME sector is paramount in ensuring continued global economic achievement for our nation. The UK Olympic team achieved magnificent results in the 2012 London Olympic games. Much of this success came about through collectively bringing together a multitude of small improvements, often utilising technology, education and prior experience to give the athlete or team of athletes a competitive advantage. These same principles can be applied to business.

The principal research aim is to critically examine whether businesses that are managed by PGB generate greater revenue, more profit and employ more staff than businesses not managed by PGB. The second aim is to determine how managers learn in businesses run by managers who do not hold a Post-Graduate business qualification.

² The attainment of a formal qualification over and above the undertaking of an informal training programme, which does not provide a recognised qualification as a course output.

³ Improved transportation and global infrastructure have made international trade more accessible.

In order to help satisfy these aims four objectives have been set in order to understand more about the protean characteristics of the SME sector and the PGB manager employed; these being

- Establish if firms managed by PGB deploy more taught strategic business tools in the development of business strategy than BM and determine if the use of these tools has a direct result on improved business results related to growth.
- Identify whether PGB managers are more prevalent in family or non-family businesses, independent or subsidiary businesses.
- Identify whether businesses that employ PGB managers have enhanced growth ambitions over BM run businesses
- Consider and examine the importance of business experience and the business Post-Graduate qualification to see if this is related to business growth.

The research collates data from UK SME manufacturing businesses managed by PGB and businesses managed by BM that will enable me to satisfy the research aims and objectives. Subsequent data analysis will allow me to explore the difference between businesses managed by the two management groups under investigation and thus satisfy the research aims and objectives.

I want to examine my ideas thoroughly, rigorously and methodically throughout the course of this thesis. My hope is to personally contribute to the success of UK Business PLC via the thesis findings.

So, what about my personal experience, how has this thesis has materialised? What is the background behind this thesis? Why is this important to me? And, what has led me to down the path to want to improve the performance of UK manufacturing SMEs? As stated by Cole et al (2011:87) “Professional Doctorates have been established as key arenas for learning and research with the requirement for individuals to make both a contribution to management practise and academic knowledge. Many students on these programmes are drawn from the senior business world.” I am one of these students, but what about my journey into the so called “senior business world”? How is it that a council house child who left school without a single qualification finds himself undertaking a DBA, managing a growing SME and wanting to help develop government policy. Let me explain.

1.2 Background information, scene setting.

I was born on the 7th July 1967, my father a mineworker, mum a part time cleaner. I grew up on a council estate in a mining community. My job was pre-defined at an early age by my father, when he proclaimed; “You are going down the mines son, it is where the money is.” There was never any consideration for further education or career plans, my job had been chosen for me; to follow in my father’s footsteps and go down the mine. I left school without any formal qualifications and started working down the coal mine, just as my father had stated

My introduction to coal mining was twelve months on strike, followed by 8 years of unskilled hard manual labour. The end turned out to be just as pre-determined as the beginning following Margaret Thatcher’s success over the striking miners in their year-long battle. The conservative government’s policy was to close the coal mines in North East Derbyshire because they were considered un-economical. The governmental policy was enforced and North East Derbyshire’s coal mines were closed, along with many others. Slowly but progressively over a 10-year period the coal mining headstocks and spoil tips disappeared from the local landscape. The coal miners of North East Derbyshire were either made redundant or transferred to other coal mining districts. I was made redundant. After being made redundant and having started my new job, I realised that my father’s view regarding coal mining being well paid was true. My new job was poorly paid in comparison to coal mining. I had to adjust my lifestyle in order to live on a wage that was approximately one third of that which I had received as a coal miner. I knew then that something had to change. I wanted to get back to a standard of living in which I had become accustomed.

I, unlike many others, immediately found work; however, opportunities to further my career within my new firm were persistently missed because of my inherent lack of educational qualifications, my attendance and effort level at school was very poor. I therefore decided to embark on what has since developed into an addiction to learning. Over the last 22 years I have studied part-time, attaining numerous qualifications, mostly at evenings during my own time, following long difficult days at work. My career has developed along with the initials I can proudly sit at the side of my name, the highest being MBA, a degree I took great pride in achieving back in 2008.

My job title is now Managing Director of ‘The Cooper Group’. I am an employee of a family owned SME, a position in a business in which I take great pride. I have advanced my career

via internal promotions within the four businesses that have employed me since working down the coal mine. The promotion to my current role has taken 20 years to achieve. I am settled in my current role, yet, I continue to search out new exciting challenges for our company, our company's prosperity and my career. My university education concludes with this DBA.

I believe my education has given me the required skills, knowledge and confidence to rise to the challenges I have faced over the last 20 years. My personal career path and learning experiences have led me to query; "Is my learning journey, career development and the favourable business results which we have achieved common, and is growth within SMEs greater in those managed by PGB than those that are not?" As this thesis developed, I soon realised that this question was not a simple question to answer; this voyage has opened my eyes to all types of further questions, all of which have been part of this learning journey.

McLarty (1998:108) states, "Some researchers have sought to uncover a high growth recipe for SME development, this would be very useful if discovered; the elusive silver bullet." I was one of the researchers who thought the "silver bullet" was there to be found. However, after just a short amount of time, I changed my opinion, as it soon became clear that SME businesses are multi-faceted complex organisms that are affected by countless contributory factors. It is because of this that I decided a prolonged attempt to find out a little more about the constituent parts of that silver bullet, along-side making my contribution towards current academic and business practice.

Many practising managers make good decisions; are these decisions lucky, intuitive or informed via experience or training? The outcomes of decisions managers make result in many SME businesses becoming larger with positive outcomes. Others, however, make poor decisions and their businesses turn out to be only transitory. My question is; "How much of this is related to education?" As highlighted above, McLarty (1998) believes there is no single silver bullet that assures business success, I ask; "Are some of the constituent parts of a silver bullet known, are these constituent parts available for use by business managers today, and, if so, when utilised, is success assured?" I will now outline what I believe to be the principle aims of the thesis at this point.

1.3 Research Aims and contribution to knowledge

The literature highlights many SME business characteristics that need to be carefully considered when undertaking research around growth, education and UK manufacturing SMEs. SMEs have been described as being; protean, eclectic, heterogeneous, variable and multi-faceted in character, my findings support these views. New themes emerged from the literature review resulting in an extended thesis. The variability and complexity of SMEs has been described as being the reason why very limited research is undertaken within this business sector. The variability certainly cannot be ignored. I see this research task as a challenge, the challenge motivates me to seek out a greater understanding of this business sector. The fundamental aims and objectives of this thesis are now detailed;

1. The principal research aim is to critically examine whether businesses that are managed by Post-Graduates in Business generate greater revenue, more profit and employ more staff than businesses managed by Business Managers.

The literature identified a gap in this area, research has been undertaken around the MBA qualification and the qualification holders career advancement, and also around graduates and business performance. I have found nothing that addresses the issue that PGB might improve the performance within UK manufacturing SMEs.

2. The second aim is to determine how managers learn in businesses run by managers who do not hold a Post-Graduate business qualification.

Picking up on the learning theory and differentiating between learning styles of managers managing UK manufacturing SMEs, if a formal PGB educational route is not available or preferred then how are business management skills attained?

In order to achieve the aims and attain an increased understanding of these influential variables within the UKs manufacturing SME sector the following objectives are set out

1. Establish if firms managed by PGB deploy more taught strategic business tools in the development of business strategy than BM and determine if the use of these tools has a direct result on improved business results related to growth.

Previous literature ties strategic tools with business development, a detailed review of QAA benchmark (2013) strategic tools and SME business performance has not been researched to any degree within UK manufacturing SMEs. Exploring the links to formal education is novel and at the heart of thinking behind this thesis.

2. Identify whether PGB managers are more prevalent in family or non-family businesses, independent or subsidiary businesses.

The literature identifies that family businesses are more inwardly thinking and tend to employ lower amounts of PGB. Family businesses and business ownership structure is the focus of many researchers, it has been for many years, I cannot do justice to research around SMEs and education without exploring ownership structures and the family firm because it is a fundamental SME business variable. Variables within SMEs need to be considered, the family owned business along with other ownership structures could be instrumental in terms of business performance relating to business growth, ignoring this aspect would be negligent.

3. Identify whether businesses that employ PGB managers have enhanced growth ambitions over BM run businesses

Research around salary levels and business size has been previously undertaken, as identified in the literature review (Cf. Finkelstein & Hambrick, 1989). Previous literature suggests a link between business size and the salary paid to the manager employed. As this is a known variable it needs to be explored and considered as part of this research to see if it is an indicator towards business growth.

4. Consider and examine the importance of business experience and the business Post-Graduate qualification to see if this is related to business growth.

The on-going debate surrounding the MBA touches heavily on the relevance of previous hands on business experience prior to undertaking the degree, experience is often cited as a benefit when managing a business, I cannot ignore this topic if I am looking to understand SME business growth, hence the inclusion within this piece of work.

In order to satisfy the aims and subsequent objectives in a manner that stands up to critique, I need involve the application of a well-designed and well thought out methodology. It has been stated above that this sector is a very difficult sector to research, with this in mind I now concentrate my efforts on designing a methodology that gives this thesis strong foundations. If all UK manufacturing SMEs that chose a strategic path of growth were successful it would be significantly beneficial to the UK economy, after all, as identified later, this sector contributes 76 billion (£) to the UKs GDP. Continued growth is paramount to a successful capitalist society. If holding a PGB qualification is shown to have a positive effect towards increased business growth, then this line of research can be expanded upon at a later date to determine further detail that can help this business sector prosper. Additionally, attaining an increased understanding of contributors to SME growth helps develop academic knowledge.

There has been much research undertaken into SMEs and their survival (Cf. O'Regan et al. 1998; Haywood, 1999; Storey and Westhead 2007), this research focuses on growth, education, and the manager employed, thus strengthening an area of research that has been identified as being weak, (Curran & Blackburn, 2001). If this thesis can contribute towards a government policy change that improves the way our nation educates current and up and coming SME managers, then the research will have been time well spent. I now discuss the reasons behind the decision to journey down the path of understanding more about the UKs manufacturing SME sector, growth and the manager employed.

1.4 Rationale

As previously discussed, I often think about why our business has witnessed strong growth, when many other UK businesses have suffered decline throughout the economic downturn that has been prevalent within the UK between the period of 2008 – 2013. The UK has witnessed two major periods of recession during the period that our business has witnessed solid double-digit growth. One of the reasons that I believe our business has witnessed strong growth is because two of the three directors hold PGB, and that these directors have applied the principles of their learning to help develop the business throughout this period. My experience of working within UK Manufacturing SMEs, which spans over twenty years, has led me to believe that UK SME growth is a complex process. This view is supported by Pasanen (2007:318) who states, “Moreover, previous research reveals that firm growth is a multidimensional

phenomenon” and Delmar et al. (2003) who claim that there is substantial heterogeneity in a number of factors associated with firm growth; described later as the stochastic model and Gibrat’s Law.

With previous research identifying that firm growth is peppered with complexity, I believe this research will be of interest to UK Manufacturing SMEs who are pursuing a growth strategy, alongside educational facilities who teach business management PGB. Due to the sparse availability of current literature in relationship to PGB and SME business growth, a more general search towards training and business size was undertaken. Confer (Storey, 2007; Brown et al. 1990) who note that employees in larger firms, with at least 100 employees, were twice as likely as those in small firms to have participated in a formal training programme within their current work place. The positive relationship between formal training provision and firm size is apparent within the United Kingdom; Mangham and Silver (1986), Cambridge Small Business Research Centre (1992), all noted formal/structured training take up rates increased with firm size. Storey and Westhead (2007) noted that a relationship is clear regards firm size and management training take up; from a survey of 1,066 firms in the west midlands region of England. Many areas of research have been undertaken in respect to UK SMEs and growth, these are further detailed within the literature review. However, there is a definitive gap in this field of research when PGB education and the SME is explored. Academic establishments will benefit from an improved understanding of the effects of their teaching in UK manufacturing SMEs, and, additionally knowing whether or not that their teaching ultimately leads to increased earning potential for the stakeholders concerned. This research aims to bridge this gap. SMEs who decide to journey down the path of growth are of major importance to UK PLC, one primary reason being that successful SMEs will be a major direct provider of new employment. Employment creation being ever important for a thriving UK economy, creating new jobs will undoubtedly help pull our country out of the double dip recession that we have recently witnessed and keep it prosperous for many years to come. Increased earning potential via continued growth within the UK SME manufacturing sector helps provide new jobs, increased wealth, and improved security. Governments are interested in providing jobs, wealth and security. The research is therefore of potential interest to stakeholders from all backgrounds; employers, employees, families, educational establishments and government.

Additionally, the research holds a personal interest to me, I manage a manufacturing SME. SMEs interest me, manufacturing interests me, as a practicing manager management interests me. It is the strategic aim of our business to grow; business growth holds a specific interest to me as I am tasked to grow the business I manage. My experience suggests to me that my qualifications and the qualifications held by our Commercial Director play a strong part in the growth and success that our business has achieved. I will learn from this research and further improve my managerial performance, ultimately increasing my earning potential and contributing to my personal knowledge. If I can do this then there is a chance that others could do the same. The knowledge I achieve from undertaking this thesis will, hopefully, help me better my understanding of UK manufacturing SME growth. I plan to apply the findings, and knowledge taken via the undertaking of this thesis, with me through the rest of my career. As previously mentioned, the British Olympic team of 2012 worked on the principal that the sum of many small improvements improves competitive advantage. This thesis provides me, as an individual, with information that I have transposed into tangible actions that result in small improvements to our business, and, therefore, enhance our competitive advantage in the market sector in which we trade. I will now give an overview of the structure of this thesis in order for you, the reader, to understand the comprehensive nature of the work involved in the undertaking of a thesis of this nature.

1.5 Structure of the Thesis.

The thesis consists of five chapters.

Chapter one has been structured in a way to give the reader a comprehensive understanding of the ideas behind the research, the sector in which the research is undertaken, and the background and rationale surrounding the work. The importance of the sector in which the research is undertaken is explained alongside the typical characteristics associated within this sector. Historical thinking is explored and questions regards the underlying principles are asked. The current debate around the subject matter is discussed and the principle aims and objectives of the research are set out. The contribution to knowledge is elucidated, highlighting who can take benefit from this research and how the research may have the potential to benefit the UK economy.

This work is followed by chapter two, the literature review. The literature review consists of five sections. Section one looks into SMEs; what constitutes a small and medium enterprise, the economic role, legal status, ownership and structure, the SME and family businesses. Section two explores learning theory; how we learn, organisational learning, behaviourism, cognitivism, constructionalism and the experiential learning process the section concludes with a summary of learning theory. Section three explores the PGB; education, business success and management competence. Section four moves on to strategy and the strategic tool kit; sales and marketing, finance, strategic planning, new product development, location and finally section five concludes by exploring literature around business growth; measuring business growth, SME growth and business failure. The literature review concludes by setting the framework in which the research is set. The aims and objectives of the research are then elucidated. Chapter three explains and justifies the methodology alongside explaining the methods engendered by it. In order to ensure a thorough and comprehensive approach is undertaken to completing a good research project, the design of the research method needs to be well thought out. The chosen method/s needs to cover all aspects that can influence the outcomes, the methodology chapter is therefore paramount to a successful outcome.

Chapter four moves onto the results; response rates, data validity and data findings, statistical analysis and interview findings are discussed. The research investigates and explores, in detail, numerous characteristics within a carefully selected sample of UK Manufacturing SMEs. The period in which the research was undertaken is 2009 – 2014. Findings are then discussed with emergent themes being identified, these themes form the underpinnings behind the conceptual framework that constitutes the “Grafton Gearbox” The research aims and objectives are addressed in chapter five, chapter five concludes by highlighting contributions to professional and personal knowledge.

1.6 Ethics

This research has been undertaken in accordance with commonly agreed standards of good practice, all the relevant university research ethics committee approvals were sought prior to the undertaking of this research. Commonly accepted principals such as these are laid down in the Declaration of Helsinki, The Economic and Social Research Council (ESRC) Research Ethics Framework, and Research Councils UK (RCUK) have been followed. These

fundamental and widely accepted principles may broadly be categorised as; Beneficence, “Doing positive good”; Non-Maleficence, “Doing no harm”; Integrity, Informed Consent; Confidentiality/Anonymity and Impartiality.

This research contributes to existing knowledge and leads towards attaining an enhanced understanding of business performance, this, I believe, is doing positive good. The approach which has been utilised is designed in a way to do no harm. All questionnaire participants responded in good faith, no one was put under any undue pressure to participate in this research study, all participants were volunteers. At no point are any of the businesses that took part in the research study identified, the information attained remains anonymous throughout the study. Data which identifies individuals and their businesses is kept in secure files. All work undertaken as part of this study has been done impartially, the views given by the researcher are the researcher's views alone. Set methods have been deployed throughout this research study in order to achieve a level of professionalism which is expected at the level in which this research has been undertaken.

Information presented that details specifics in relation to the business in which I am employed has been approved by the company shareholders and directors.

1.7 Section Overview and Re-cap

You should now have an understanding as to what this thesis is about, I have explained the background to the thesis and how I find myself undertaking research work of this nature. Hopefully, you should understand a little more about me, my addiction to learning and how I personally wish to help our nation's economy improve via SME growth and wealth creation. The importance of the SME sector is explained, the key characteristics have been outlined and the sheer size of the task involved is elucidated. The importance of the research to the UK economy is discussed, alongside the academic gap the research fills, the contribution to business, academic and personal knowledge is highlighted. I now move on to chapter two; The Literature Review.

Chapter 2 A Review of the literature surrounding UK SMEs and growth

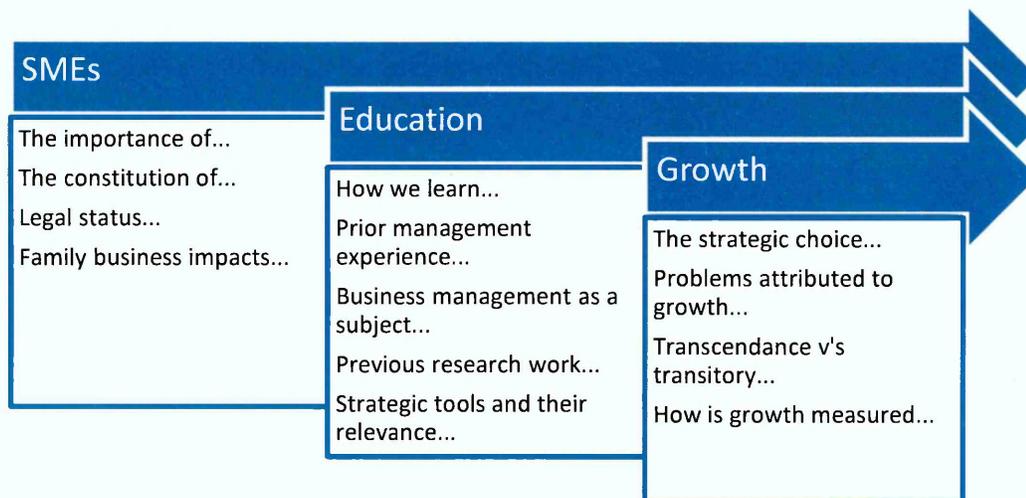
2.0 Introduction to Chapter 2

Chapter two explores the current literature surrounding growth and the UK SME sector. Inherent variables that can play a strong part in influencing growth need to be considered, understood and controlled. The SME sector is eclectic by nature, with this in mind it is critical that the protean nature of the SME is fully understood and controlled as best possible in order to give this thesis any degree of rigor. Numerous aspects of the SME business sector have been previously researched; Strategy and the SME (O'Regan et al., 1998), supply chain and its links to SMEs (Haywood, 1999), an overview of management training within the SME Storey and Westhead (2007) these examples highlight just a small selection. The literature is comprehensively explored to better understand the complexity of this business sector. Albeit not every variable can be accounted for, exploring previous literature around the subject matter helps identify the variables that have previously been identified as having an influence on business performance and growth.

The literature review starts by exploring the SME itself; what constitutes an SME, the economic role of the SME, the legal status, ownership structure and whether the SMEs researched are classed as family or non-family businesses. Prior research studies (Cf. Berle & Means; 1932; Demsetz, 1983; Demsetz and Lehn 1985; Cho 1998) all explore ownership structure and the SME, (Lansberg, Perrow, & Rogolsky 1988; Chua et al., 1999) explore the family business, (Mc Kenna, 1991; Romano & Ratnatunga, 1991) look at strategy and marketing within the SME. All of the above researchers have identified that business performance can be influenced by these factors. Learning theory is then explored, as not all managers have formal training (McLarty, 1998), I ask; "How do we, as managers, learn? How are managers picking up the required skills to manage their businesses? What tools and techniques are being used? And how do managers learn to use the tools they employ within their businesses?" There is a large degree of literature documented regarding learning theory, this literature is explored to understand its relevance to this thesis.

The PGB, education and management competence is then explored, this section investigates the importance of prior management experience to the undertaking of a PGB qualification, training methods and similar research work undertaken by others pertaining to education and business performance, albeit not necessarily focused on the SME, PGB, and growth alone. The chapter then moves on to business strategy, to include; the strategic tools available to the business manager, the importance of business strategy, the time and place to make strategic choices, the options available for the practicing manager and how a manager would normally learn about business strategy. A discussion of business growth brings the chapter to a close; what constitutes business growth, why some businesses grow and others do not, the problems surrounding business growth and the measures used to identify a growing business. Figure 2.1 below shows the flow of the literature review.

Figure 2.1 Literature review flow



2.1 SMEs

2.1.1 What constitutes a Small and Medium Enterprises (SME)?

This thesis focuses on UK manufacturing SMEs, as mentioned previously it is my personal ties to this sector that have led me to undertake this thesis, hence this particular focus. In 2012 there were 231,000 UK manufacturing SMEs (Trading Economics, 2014). This figure represents 4.8% of all UK businesses, equivalent to 76 Billion (£) worth of trade (Trading Economics, 2014). 57% of all UK manufacturing jobs are within the SME sector (BIS, 2012).

With SME numbers at these levels it becomes important to define what constitutes a UK manufacturing SME. There is no single definition of what constitutes an SME. In most of the Organisation for Economic Co-operation and Development (OECD) countries, for example, work force size is regarded as the main criterion. However, what is termed a small manufacturing enterprise may have up to 50 employees in Belgium and Greece, up to 100 in the United States, up to 200 in Canada, Italy and Spain, and up to 500 in Denmark, France, Germany and Ireland. In nearly all these countries, enterprises with fewer than 10 employees are regarded either as very small/micro enterprises, or are excluded from official statistics (ESCWA, 1999:7).

For the purpose of this research the UK’s 2006 Companies Act is utilised. The reason why this specific definition has been chosen is because it is clear, concise and officially documented, unlike many other definitions that do not have boundaries, it provides precision to an area that is generally lacking in precision. For the purpose of accounting requirements sections 382 and 465 of the Act serve to define an SME. The act defines both small and medium enterprises separately. According to the 2006 Act a small company is one that has a turnover of not more than £6.5 million, a balance sheet total of not more than £3.26 million and not more than 50 employees. A medium-sized company has a turnover of not more than £25.9 million, a balance sheet total of not more than £12.9 million and not more than 250 employees. Therefore, SMEs are a combination of both small and medium sized enterprises. In 2009 the country's SMEs employ 13.5 million people, or 59% of the UK's total private sector workforce. These companies account for 51% of UK GDP (Federation of Small Businesses [FSB], July 2009). According to recent figures there were an estimated 5.2 million businesses in the UK which employed 25.2 million people, and had a combined turnover of more than £3,500 billion. Small firms accounted for 99.3 per cent of all private sector businesses in the UK, 47.8 per cent of private sector employment and 33.2 per cent of private sector turnover (FSB, 2014). See table 2.1 for a summary of what constitutes an SME within the UK

Table 2.1 SME Descriptor (Federation of Small Businesses July 2009)

	Employees	Turnover	Balance sheet
Small Business	<50	<6.5M (£)	<3.26M (£)
Medium Business	<250	<25.9M (£)	<12.9M (£)
SME	1 – 249	1 – 25.89M (£)	<12.9M (£)

The characteristics of a typical UK SME are loosely considered as; having 1-249 employees, with a turnover of up to 25.89m (£) and with a balance sheet of no greater than 12.90m (£) (UK Companies Act 2006). This research explores SME growth and the management team's educational background, because of this the research study does not explore businesses that employ less than ten people. It is highly likely that businesses that employ less than ten people will not have a formal management team in place

The SME sector is described as being protean in character; varying in size, experience, values, resources and stakeholder engagement (Curran & Blackburn, 2001; Beaver and Jennings, 2000). In an organisational behaviour context SMEs have relatively fewer resources than their larger counterparts and are more risk adverse because of lesser market diversification (Jenkins, 2004; Spence, 1999).

Matlay (1999:285) found that the locus of organisational control and human resource decision making processes in the 6,000 respondent businesses that were analysed across four size bands identified that "Small firms in general, and in micro-businesses in particular, organisational control is likely to rest with one individual, this one individual usually makes most, if not all, the important decisions." Although there were considerable size related differences among the businesses in Matlay's sample, the locus and nature of decision-making processes showed marked similarities amongst both manufacturing and service firms. In micro and small businesses, the locus of organisational control rested entirely with owner managers, thus reinforcing my contention that recruitment of external PGB managers in firms where less than ten people are employed is highly unlikely.

2.1.2 SMEs The role and importance of SMEs in the economy

"The economic significance of the SME business sector in generating income and sustaining employment has been recognised by successive UK Governments since the 1960s," (Jayawarna,2003:4). The number of small and medium sized enterprises in the UK increased by fifty per cent in the last quarter of the twentieth century and these are now responsible for over half of all jobs and turnover in the economy (BIS, 2010). "Small and medium enterprises play a very important role in the economies of both developed and developing countries, representing well over ninety per cent of all manufacturing enterprises in the world" (Wijewardena et al., 2008: 150). These statistics demonstrate that SMEs are the lifeblood of

our economy, they supply products and services that ensure life's needs are satisfied locally, and globally.

SMEs play an important role in ensuring that our economy continues to grow via the constant re-invention and supply of "Acorns" that can, given time, turn into "Oaks." Big businesses start out as small businesses. A well performing economy contributes towards ensuring jobs are available, this leads to an improved and healthier lifestyle for more people to enjoy. I set out on this research journey to find out more about how we can ensure as many "Acorns" transform into "Oaks" as possible, thus keeping our nation in the leading global economic pack, as discussed in chapter one

Benedettini et al. (2010:6) state "We need manufacturing for national security, for sustainability reasons, and for the development of new technologies." In their Advanced Institute of Management Research report they state; "UK Manufacturing in general adds £150 billion per annum to the economy, generates half of all UK exports, directly employs three million people, and accounts for three quarters of business Research and Development (R&D)," from 1997 to 2007 labour productivity in manufacturing increased by 50%. Acs et al. (1999) highlight that in recent times and not just in the UK, policy makers and others have come to view small and medium-sized enterprises as important sources of jobs, innovation and growth. Business pulse (BDO, 2012) reported that manufacturing in the UK was performing at a soaring level with greater investment and improved sales. According to the Manufacturing Advisory Service (MAS: Sept 2012) the organisation's first ever National Manufacturing Barometer showed that small and medium-sized enterprises in the UK were performing above predicted rates, while other sectors continued to find the current economic environment challenging both at home and in Europe.

The results attained by the manufacturing business in which I am employed (Cooper Research Technology) certainly support MAS's claim. Over the last 6 years (2007–2013) Cooper Research Technology has grown at double digit rates with the overall business more than quadrupling in size, both in respect to numbers employed and financial turnover. Cooper Research Technology has expanded from a single entity to a four company business group. The number of staff employed has expanded from 6 to over 50. The group has expanded overseas with manufacturing facilities and sales offices now based in California USA, Hong Kong and the UK.

Curran and Blackburn (2001:8) state “The small enterprise has experienced a remarkable revival as a focus of business, political and research interest in recent decades” this revival continues right until the present day with Lord Young reporting the success of the small business sector in his “Growing Your Business” report 2013 (Young, 2013). Curran and Blackburn (2001:8) go on further to mention “From being seen as a disappearing relic of the nineteenth century industrialisation, surviving only when market forces and new technology had not yet restructured the economy, it is now seen more positively as the generator of the enterprise economy, and integral to economic regeneration.” Although Curran and Blackburn’s views are somewhat dated, they are still very much valid, with many European Governments promoting their small business sector as the way forward out of recession, as discussed in Young’s (2013) report. This is certainly true within the UK. GE Capital’s latest European SME Capex Barometer reveals that UK small to medium sized enterprises intend to invest over £45.8 billion in the next 12 months, a 23% increase on investment intentions in quarter 1 (GE Capital, 2012).

GE Capital’s (2012) figures highlight a move to upgrade existing equipment in order to enhance efficiency and productivity, whilst also indicating a clear response to increasing missed income or new business opportunities as also revealed by the survey. Results also predict a significant boost to UK employment, with UK SMEs planning to take on staff in much higher numbers compared to the start of the year. Other top line findings that include SMEs, plan to take on 452,000 new staff in the next 12 months, an increase of 20% on their intentions in Q1 2012 (Fresh Business Thinking, 2012). Beaver and Jennings (2000:397) recognised the importance of the UK’s SMEs when they remark; “Small business is the way forward out of recession, claiming that new and emerging enterprises create jobs, economic prosperity, competitive and structural balance, consumer choice and personal opportunity.”

Discussions I have held with Derbyshire and Nottinghamshire’s United Kingdom Trade and Industry (UKTI) representatives throughout 2012 reiterated this view, they are eager to push the UK’s SME sector further along the path towards export, as promoted by the Conservative Party’s coalition government of 2012. The current government is encouraging UK Manufacturing SMEs to trade globally and export our way out of recession. The impact that the recession has had, and is continuing to have, on businesses is still all too real. It is therefore essential that the Government does all it can to help to create an environment that is supportive of businesses engagement in international trade.

“The question asked in this inquiry was a simple one; what more can be done to help the country export itself out of recession? If such an environment is to be created, all branches of government need to become more commercially aware and alert to developments that will impact on, or could provide opportunities for, British businesses. Trade promotion must not be seen as solely the responsibility of UKTI. There has been a very welcome change in the mind-set of the Foreign and Commonwealth Office (FCO) to become much more business orientated; other departments and agencies must take practical steps to emulate the change that the FCO has achieved” (HC 266-I, 2010).

The UK government recognises the importance of SMEs and their contribution to economic growth; with many governmental initiatives being introduced across government departments, as highlighted above. Understanding success factors within SMEs is therefore critical to SMEs in ensuring their planned growth programmes are successful. The UK Government can help to identify opportunity, spread the word and open doors, however, if SMEs are not utilising every available tool to ensure growth objectives are achieved, then more needs to be done. This research contributes to this, the thesis is designed to better understand the contributory factors surrounding education, and thus provide valuable research around the very important subject matter of SME growth.

The SME sector serves the UK economy in other areas as well as being an independent trading function, it acts as a natural brake on large-company dominance and the misuse of monopoly power for competitive advantage. Governments of all the main parties have seized on small-scale enterprises as job creators, innovators and, above all, as vehicles for entrepreneurial aspiration (Beaver & Jennings, 2000). The number of small and medium-sized enterprises in the UK increased by 50 per cent in the last quarter of the twentieth century these businesses are now responsible for over half of all jobs and turnover in the economy (BIS, 2010).

It becomes clear from the literature (Acs et al., 1999; Beaver & Jennings, 2000; Curran & Blackburn, 2001; BDO, 2012; Fresh Business Thinking 2012), that for the foreseeable future, SMEs are likely to retain their crucial position both within domestic economies and across an increasingly international stage. With foreign investment in British business becoming ever more prevalent many SMEs now find themselves part of a larger organisation. The pace of economic change has accelerated and the operational time-span in all fields of activity has

shortened, internationalisation activity has assumed an increasing role not only at the level of the firm, but also at the national level albeit independently managed (Young et al., 1989; Katsikeas & Skarmeas, 2003; Pinho, 2007). With this in mind, one should ask the question; how does international and larger corporate group ownership and legal status of SME manufacturing businesses affect their performance? As the SME sector is such a critical cog in our country's economic wheel, the variables attributed to ownership structure need to be explored. Variables that have been previously identified as having an influence on business performance, specifically growth, need to be understood and controlled. The next section explores contemporary management within the SME.

2.1.3 Contemporary management within the SME

This work investigates UK SMEs. Analysis of work undertaken by Anyadike Danes et al. (2015) suggests some striking stylised facts. First, the majority of jobs in the United Kingdom are created by small firms (i.e. fewer than 50 employees and including micro-enterprises). As a result, smaller firms have been increasing their share of total employment year on year; in 2010 their share of employment was triple that of 1998. Second, the profile of job creation and destruction is relatively stable over time even the economic downturn after 2008 did not affect the overall scale of job creation and destruction taking place in the UK economy. Third, although definitional differences make a significant difference to apparent outcomes high growth firms and larger non-high growth SMEs are most prolific in terms of job creation. Understanding more about SME growth is what this thesis is about, as, in terms of job creation SMEs are vitally important to our economy, however despite their several advantages over large sized competitors when it comes to job creation, SMEs have weaknesses and challenges of their own when one explores SME growth. Modern day management of SMEs is identified as being one of those problems, as identified below.

Zimmerer and Scarborough (2005:65) discuss managerial mistakes, they recognise that "A failure to develop a strategic plan and poor financial control" are among the most important reasons of business failures in small businesses, ranking "Poor strategic management" as the primary cause. According to Wheelen and Hunger (2010:949) strategic management is "A set of managerial decisions and actions that determines the long-run performance of a corporation." Wilson (1994:540) discusses how strategic management creates "A clearer sense of strategic vision for the firm, sharper focus on what is strategically important" and "Improved understanding of a rapidly changing environment." Within that respect, conducting strategic

management in SMEs has a crucial importance as SMEs have to operate and compete within contexts of high risk and uncertainty. Zimmerer and Scarborough (2005:65) describe strategic management in small businesses as “The process of developing a game plan to guide a company as it strives to accomplish its vision, mission, goals, and objectives and to keep it straying off-course.” The need for applying the methods and techniques of strategic management in small and medium sized businesses can be attributed to the changing conditions of conducting business, this research explores strategic management, the manager employed and SME growth.

Although small businesses are exposed to higher risks and uncertainty compared to large sized enterprises, the traditional business management style of SME owners or entrepreneurs generally tended to overlook the strategic management processes. This process had to go through serious changes with the developments in the business environment as the entrepreneurs and small business owners became more aware of the challenges and the opportunities of the contexts they are competing in, and the sustainable competitive advantages their enterprises had to develop to reach their organisational goals (Zimmerer and Scarborough, 2005).

Within that respect, the potential advantages of a strategic outlook for SME owner/managers, summarised by Wickham (2006:321) as: “Encouraging the entrepreneur or small business owner/manager to evaluate and articulate a vision, ensuring the scanning and analysing of the organisation and its environment, facilitating the discovery of new opportunities and strengths, guiding the restructuring of the enterprise, guiding the processes of decision making, within the enterprise, providing a starting point for the specification of objectives, acting as a common language for the enterprise’s stakeholders.” This proves to be of greater importance when the strategic focus is on business growth.

While there are several gaps in our knowledge of SME business management and growth, there is also a strong body of evidence that demonstrates the effectiveness of policy in supporting SME growth through a strong strategic plan to include; education, the family business, finance, leadership and management development (Wright et al, 2015), this work further explores these links.

In terms of management and leadership, Lockett et al. (2015:90) argue that SME growth depends upon “Substantive growth capabilities, which are shaped by the upstream issues of management and leadership.” Strategic management processes facilitating growth include

those that support market penetration, innovation, new product development, new market development and internationalisation as identified below. Growth is further supported by a foundation of solid general management processes without which, viable growth is less likely to occur. Management processes supporting alliances, joint ventures and mergers and acquisitions also serve to accelerate growth, anecdotal evidence from the company in which I manage demonstrates this further, this has been a route we have taken.

As identified by Wright et al, (2015) a leader's prior knowledge of the domain (i.e. industry) and prior entrepreneurial experience exert a strong positive influence on the number of market opportunities identified. The nature and diversity of knowledge among the entrepreneurial leadership team has a positive bearing on growth, both directly and indirectly via opportunity identification. Prior entrepreneurial experience allows entrepreneurs to develop broader and more complex mental models which allow them to connect the dots between seemingly disparate information. The nature and diversity of knowledge among the entrepreneurial leadership team also has a positive bearing on growth, both directly and indirectly via opportunity identification. Growth ambition may also lead SMEs to set specific, challenging goals. Evidence suggests that such goals result in higher performance than vague and/or easy goals (given adequate commitment, feedback and knowledge). The motivation to grow, reflected in the growth intentions of leaders and their goal setting, is an important determinant of growth. Fear of failure represents a potential barrier to growth.

Lockett et al. (2015) identify that leaders need to be both willing and able to grow their firms. Developing dynamic growth capabilities requires capable management. Management that is capable of making good decisions, this piece of work examines links between management capability (measured via results attained linked to business growth) and the Post Graduate management qualification. Good decision making within business management is critical to business success Lockett et al. (2015). In increasingly complex environments, leaders face pressures to manage paradoxical demands. Organisations are rife with competing stresses as discussed by (Franka et al., 2013). At an organisation's highest level, senior leaders face such pressures as exploring and exploiting (March, 1991), integrating globally and adapting locally (Marquis & Battilana, 2009), or maximizing profits and improving social welfare (Margolis & Walsh, 2003).

Early organisational scholars acknowledged these competing strategic demands, but argued that success depended on leaders making choices and maintaining a consistent commitment to

these decisions (Barnard, 1938; Thompson, 1967). Managing varying demands, accommodating contradictions into novel synergies (Eisenhardt & Westcott, 1988; Rothenberg, 1979), or differentiating and integrating to understand alternatives (Andriopoulos & Lewis, 2009; Smith & Tushman, 2005) is an ever present management discussion topic. Prior research has proposed methodologies and frameworks to be applied in decision-making, considering different business environments.

2.1.4 SME legal status, ownership and structure and the impact on performance

One of the many characteristics of UK SME companies is their legal status. The thesis has been designed to collate information regarding business characteristics in order to identify potential influences that may be significant factors towards growth. Data was gathered regarding the legal status of the businesses surveyed in order to help identify if the legal status had any link to business performance and the educational level of the manager employed. Businesses fall into three different types of legal status: sole proprietorships, nominally managed by one self-employed person; partnerships, run by two or more self-employed people or companies (including public corporations and nationalised bodies) in which the working directors are classed as employees.

According to The Department for Innovation and Skills (BIS, 2012) by the start of 2012, 62.7 per cent of private sector SME businesses were sole proprietorships, 28.0 per cent were companies and 9.3 per cent were partnerships. There were an estimated 3.0 million sole proprietorships in the UK at the start of 2012, of which 296,000 (9.9 per cent) had employees. There were 1.3 million companies, of which 785,000 (58.6 per cent) had employees. There were an estimated 448,000 partnerships, of which 155,000 (34.6 per cent) had employees. The 4.8 million private sector businesses employed an estimated 23.9 million people, and had an estimated combined annual turnover of 3,100 billion (£).

The impact of ownership structure on organisational performance has attracted the interest of a large number of academics, see; Berle & Means (1932); Demsetz, (1983); Demsetz & Lehn (1985) and Cho, (1998), Anderson and Reeb (2003). The relevance of ownership structure is of significance to this research because it is a variable that needs to be understood and monitored, if not then results may be unreliable and inconsistent. Detail follows regarding business performance and how this can be influenced by different ownership structures. Firstly,

it is important to identify the different ownership structures that are typical amongst UK SMEs. Businesses can be independently owned, they can be part of a larger UK or Foreign owned subsidiary (nominally a PLC), or they can be trusts set up on behalf of others. Many UK SMEs class themselves as family businesses, albeit there is no formal classification for businesses that class themselves as family businesses.

Family businesses are explored further in the next section as family business structure has been noted as having an effect on business performance. This ownership type list is by no means comprehensive, it does, however, capture the more prominent classifications that are common within UK SME industry. The interest in the relationship between ownership, structure, and corporate performance dates back to Berle and Means (1932) seminal study. Berle and Means warned of the concentration of economic power brought on by the rise of the large corporation and the development of a powerful class of professional business managers, shielded from both the pressure of shareholders and general public accountability. Berle and Means warned that the ascendance of management control and unimpeded corporate power had potentially serious consequences for the democratic character of the United States. They, Berle and Means (1932:8-9) explain in a very clear and informative manner by means of this quote:

“It has been assumed that, if the individual is protected in the right both to use his property as he sees fit and to receive the full fruits of its use, his desire for personal gain, for profits, can be relied upon as an effective incentive to his efficient use of any industrial property he may possess. However, in the quasi-public corporation, such an assumption no longer holds. As we have seen, it is no longer the individual himself who uses his wealth. Those in control of that wealth, and therefore in a position to secure industrial efficiency and produce profits, are no longer, as owners, entitled to the bulk of such profits. Those who control the destinies of the typical modern corporation own so insignificant a fraction of the company's stock that the returns from running the corporation profitably accrue to them in only a very minor degree. The stockholders, on the other hand, to whom the profits of the corporation go, cannot be motivated by those profits to a more efficient use of the property, since they have surrendered all disposition of it to those in control of the enterprise.”

Berle and Means proclaim that as the diffuseness of ownership increases, shareholders become powerless to control professional business managers. Furthermore, they claim that,

given that interests of management and shareholders are not generally allied, company resources are not used efficiently in maximising corporate profit. Therefore, Berle and Means suggest that the relationship between ownership concentration and performance should be a negative one.

Alternatively, Demsetz (1983:386) states “It is unreasonable to suppose that diffused ownership has destroyed profit maximisation as a guide to resource allocation.” Instead, Demsetz asserts that a firm’s ownership structure is “An endogenous outcome of a maximising process in which more is at stake than just accommodating to the shirking problem.”

The influential article by Demsetz and Lehn (1985) rejuvenated interest in this important area and principally identified that when scale requirements are large, especially when the survival of the firm requires a rapid attainment of large scale, then there will be economic pressure to satisfy the consequent need for sizable equity capital by turning to a diffused ownership structure. The greater monitoring cost that might arise from such an ownership structure may be more than offset by the reduction in risk-associated capital cost, so that maximisation of the value of the assets of the firm actually requires a diffuse ownership structure. Cho (1998) also examined the relation among ownership structure, investment, and corporate value, focusing on whether ownership structure affects investment. Cho (1998:103) found that “Ownership structure affects investment and, therefore, corporate value.” However, further analyses indicate that the endogeneity of ownership may affect these inferences, suggesting that investment affects corporate value, which, in turn, affects ownership structure. The evidence shows that corporate value affects ownership structure, but not vice versa.

Porter (1990) suggests that ownership structure exerts a strong influence on the goals and structure of the organisation. He talks about current trends and that the words of the day are; merger, alliance, strategic partnerships, collaboration, and supranational globalization, principally all relating to the ownership of the business. Albeit this work is dated, not much has changed the staples of business remain as popular today as they were 25 years ago. As organisations grow and globalise, specialist local knowledge and understanding becomes crucial to success. Rather than attempting to build from scratch, competing with the established firms, alliances and takeovers become more of an attractive proposition, hence constant change to firm ownership structure and future direction. Daily and Dollinger (1992) concluded that

ownership, defined in terms of family ownership and professional management, influenced firm size, firm strategy and internal control systems.

McMahon (2001:52) states; “Traditional or lifestyle SMEs following the low growth development pathway, these concerns generally have few, if any, growth aspirations. They principally exist to provide their owner-managers with a source of employment and income. Furthermore, they are frequently operated in a manner consistent with the lifestyle aspirations of their owner managers.” Bethel and Libeskind (1993) concluded that ownership concentration is associated with more efficient strategies and higher firm performance. Others suggest that ownership influences how internal and external coalitions interact with each other to influence the firm’s conduct, including its strategy (Chaganti & Damanpour, 1991). Scholars further suggest that ownership has important implications for the formulation and deployment of the corporate strategy (Johnson & Scholes, 2002; Anderson and Reeb (2003); Variyam & Kraybill, 1993) and for performance objectives such as short-term and long-term targets (Hill & Snell, 1989).

In summary, it would be fair to say that no single ownership structure is suitable for all situations (Johnson & Scholes, 2002; Bethel & Libeskind 1993; Variyam & Kraybill, 1993, Anderson and Reeb (2003)) if the value of the firm’s assets is to be maximised. All of this has relevance to this piece of research work as fundamental variability regards ownership structure and firm performance is identified. The above highlights how critical it is that ownership structure is identified at the data collection stage in order to control and evaluate ownership related variables. There is varied opinion among academics about ownership structure and performance. If the ownership variable is identified, monitored and fully understood then this thesis can contribute to this debate, thus contributing further to existing academic knowledge.

When one discusses ownership structure and SMEs, we find that the discussions around family businesses are also very prevalent. Anderson and Reeb (2003) primarily investigated smaller family businesses and found that “Family ownership is both prevalent and substantial; families are present in one-third of the Standard and Poor (S&P) 500 and account for 18% of outstanding equity” (Anderson & Reeb, 2003:301). Contrary to conjecture, they found family firms performed better than non-family firms. Additional analysis revealed that the relation between family holdings and firm performance is non-linear and that when family members serve as CEOs, performance is better than with outside CEOs. Overall, the results are inconsistent with

the hypothesis that minority shareholders are adversely affected by family ownership, suggesting that family ownership is an effective organisational structure.

With the tie between SMEs and family businesses being so close it is inevitable that a significant degree of any SME research will include that of family business. Accounting for 66% of the UK's small and medium sized enterprise population, family firms have a strong presence and include many businesses which are now powerful exemplars of British industry (Cable, 2011). 11.4% of the UK SME family business sector is in manufacturing (BIS, 2010). This thesis cannot overlook family business ownership structure when one explores growth, so, with that in mind, let me now explain in a little more detail the facets surrounding the family business. So, on to family businesses and how business performance relating to business growth can be influenced by the family business.

2.1.5 SME The Family Business

2.1.5.1 What is a family business

It is important to define what we mean when we talk about the family business, to provide clarity to the term family business and how this business classification functions as an entity. In my experience family businesses are as broad as they are long, they are multi-faceted, multi-disciplined entities covering all areas of the globe, regardless what is being traded in the main there will be a family somewhere dealing in that commodity, they are certainly not new and are certainly not doing anything they have not done for many years. Aronoff (1998:181) mentions the journalists who call seeking insights about family business as they often ask; "So, what's new in the world of family-owned enterprise? What trends do you see?" I am often tempted to answer; "What should be new in an institution that is as old as civilization?"

My personal experience demonstrates that there are no boundaries to the size, structure, limit of business activity or natural course of action for expansion, stability or decline a family business should take. In their editorial note in the first issue of Family Business Review, Lansberg, Perrow, and Rogolsky (1988) asked: "What is a family business? People seem to understand what is meant by the term family business, yet when they try to articulate a precise definition they quickly discover that it is a very complicated phenomenon." Chua et al., (1999:19) state that, "It is generally accepted that a family's involvement in the business makes

the family business unique,” but the literature continues to have difficulty defining the family business.

Although there is a multitude of definitions of what constitutes a family firm, most utilising similar words defining meaning, this thesis will make use of the one described in the annual report of the Institute of Family Business (2011). Based on the following criteria; the majority of votes are held by the person who established or acquired the firm, or their spouse, parents, child or child’s direct heirs, and at least one representative of the family is involved in the management or administration of the firm. In the case of a listed company, the person who established or acquired the firm, or their family, possesses 25% of the right to vote through their share capital, and there is at least one family member on the board of the company. This definition was chosen as it includes the most common terminology used when people describe the family business, it fits, it is generally accepted as being accurate and it is clear to understand.

2.1.5.2 Family business and recruitment

The three shareholders of Cooper Research Technology are; Keith Cooper, (Founder) Janet Cooper, (Founders wife) and Andrew Cooper (Founders son). The current Commercial Director Marianne Rolland Cooper is Andrew Cooper’s wife. Four of the five directors are family members; however, I am not a family member. The business owners identified that they feel none of the family members employed within the business have the correct skills and attributes to lead the business and take the business where they want it to go. This is the critical aspect here, [outlined below], one of the variables attributed to family businesses that needs to be investigated and understood is; do family businesses, have a tendency to employ, family members who do not have the required skills and attributes?

Are family members recruited over non-family members, who are better qualified to manage the business, and achieve the strategic aims that the family owners want to achieve as set objectives? Donckels and Fröhlich (1991:158) found that “Family businesses are nominally inwardly directed or closed family related systems. Among their managers are fewer pioneers than all-rounders and organizers; as a consequence, their strategic behavior is rather conservative.” They go on to highlight that; “It can be hypothesized that family businesses are stable rather than progressive or dynamic forces in their respective economies because their

owner managers are significantly less profit and growth oriented than managers in non-family firms.”

Some owner-managed ventures are viewed as lifestyle activities, Westhead (1998:47) identifies in his research work “A prime objective is to maintain/enhance the lifestyle of the owners” and “To provide employment for family members in the management team.” “Families often limit executive management positions to family members, suggesting a restricted labour pool from which to obtain qualified and capable talent, potentially leading to competitive disadvantages relative to non-family firms” (Anderson & Reeb, 2003:1302). It is heavily documented (Lee & Rogoff, 1996: Anderson & Reeb, 2003) that family members often take precedence when employment decisions are taken. There are a number of reasons why a family owned business might want to bring in professional business managers or to professionalise their current management team, one of the most common reasons as identified by Dyer (1989) is that of a lack of management talent within the family members, sometimes there can be a lack of skills, such as; marketing, finance or accounting. When this is found to be the case the family must acquire such skills if the business is to survive, these skills are often found outside the family, hence the recruitment of professional business managers.

The above highlights why family businesses need more professional business managers. Professional business managers bring along the skills needed to ensure businesses thrive and prosper and not decline and disappear. Dyer (1989) provides an insightful description of three reasons why one may choose to professionalise the family firm; 1. Improve the lack of management talent within the company. 2. Change the norms and values of the business organisation. 3. Prepare for leadership succession. Yet, Lee and Rogoff (1996:424) highlight that “The typical family system is based on a norm of providing opportunities to relatives in need which is in stark contrast to the business norm which is to hire only those who are most competent.” There is quite a difference in the literature when one looks at family business management needs and family business preferences in relationship to recruitment.

2.1.5.3 Family business, succession and planning

It is estimated that over the next five years, on average, 172,000 family businesses a year will leave the control of a generation (Institute of Family Business, 2011). Aronoff and Ward (1992) found that less than one third of family businesses survive into the second generation and only

13% survive to third generation. Lansberg (1999) found less than 30% of family firms make it into the second generation and, of these, only about 10% make it to the third. Sambrook (2005) notes that only a small percentage of firms successfully manage it into the second generation. Wang et al (2004) reveals that from 1924 to 1984, 80% of two hundred successful family owned manufacturing firms ceased to exist, and only 13% were still owned by the same family as in 1924.

This does not mean that the remainder of the businesses go into liquidation and fail in one way or another. To stay as structured family businesses, they can transfer into a separate ownership structure and still be managed by the same team. Troyer (2000) found that family business owners can, for a variety of legitimate reasons, decide together that it is no longer in their best interest or the best interest of the business to remain a family business and can therefore create a different ownership form, employing professional business managers to ensure the transition goes smoothly is one choice the business founder could take. Although many family businesses morph into entities that can no longer be classed as family businesses, it is clear that many family businesses still fail. The businesses fail because, more often than not, these people (the family) never make the decisions needed to ensure the vitality of their companies in an ever changing, even more complex world (Danco, 1980).

Daily and Dollinger (1992:133), note; “Family run firms are more likely to be dominated by a strong individual, such as the founder, who is unwilling to allow the firm to exceed his or her personal capabilities.” This unwillingness to yield control to other capable employees either inside or external to the firm may lead to conscious strategic decisions to forswear growth or to unconscious decisions that stunt the growth and development of the organisation as identified by Whisler (1988).

2.1.5.4 Family business and growth

(Ward, 1997:323) states “Despite there being a plethora of known large businesses that started out as family SMEs, most family owned businesses do not grow.” Indeed, Poutziouris (2001) found evidence from the SME economic sector that only a minority of family business owner managers are growth orientated. Leon Danco of the Arthur Andersen Centre for Family Business, supports this notion. Since the Department of Trade and Industry, DTI (2003) and Brooksbank (2000) report that over 99% of UK businesses are small and medium sized, how

to facilitate these firms, the great majority of which are family operated, managed and/or controlled, in order to survive and achieve sustainable growth becomes a major topic for researchers and practitioners.

Cooper Research Technology is the business in which I am employed, it is a family business, Cooper Research Technology fits the description identified earlier. Anecdotally, I have witnessed first-hand that scaling up is an issue for family businesses which have growth ambitions, the owners of our business have no cash to finance growth, they are reluctant to borrow money, and do not want to dilute the shareholding, this gives me tremendous problems. Attaining access to finance often means increased borrowing or dilution of shareholding. Through meetings with financiers and the major UK banks I have been told that many family members prefer not to dilute shareholdings, hence limiting their access to finance that can be key to securing further business growth ambitions. My experience is backed up by work undertaken by Petitt and Singer (1985), who found that private companies including family controlled ventures, have a propensity to finance their operations in a hierarchical fashion, first using internally available funds then followed by debt and finally external equity. Building greater management capability is also critical to enabling family firms to develop strongly, this again costs money, it is often a case of chicken and egg; Without the additional skills SMEs can be held back, without finance to secure the additional recruitment the business never takes the step up.

Identifying key characteristics of the family firm and how these characteristics interact with this research study are an important factor of this research. If, for example, family firms tend to employ suitably qualified managers but the research fails to control this variable, then results could be tainted. However, if the family firm variable is identified and controlled then analysis can be undertaken providing stronger more vigorous results. Westhead (1997:46) discusses the importance of controlling variables when researching family businesses, when he quotes Storey (1994) "Notably, a number of studies have failed to control in their univariate comparisons for the potentially distorting influence of demographic sample differences between family and non-family firms." This failure to control for variable differences (such as the age of the company, location of the company and main industrial activity of the company) is surprising when it has been repeatedly noted that firm characteristics, e.g. professional business managers, can have a significant influence on business survival and performance. Hence the importance to identify, control and measure the effect of this variable as part of this thesis. This section on

family businesses has highlighted areas to focus on when exploring the family business, growth ambition, professional management and business size. One question I do find myself asking when faced with the fact that so many family members find themselves managing businesses quite often without with any training is how do managers learn? This is important to understand because businesses are functioning without PGB, so managers are learning without undertaking the more formal PGB qualification as taught in the classroom. I need to identify, as part of this research whether more informal ways of learning are as productive as the more formal University PGB route. With this in mind I now explore learning theory.

2.2 Learning Theory

Not all SME business managers have undertaken a formal PGB education, it is well documented that some of the UKs most respected business brains dropped out of the formal educational route to concentrate on building their businesses; Sir Richard Branson, Simon Cowell, Michelle Mone and Sir Alan Sugar, all well respected within the UK business community for their achievements. This clearly demonstrates that PGB is not the only way to learn about business, so, when one discusses learning and learning theory what paradigms are under discussion?

When one explores education and the manager employed it is important to explore learning theory (how we learn). The fundamental underpinning of this thesis is built around my personal experience and ideas, these ideas being that a formal PGB education enhances the performance of the manager employed, thus suggesting learning is improved via the undertaking of a formal PGB education. Not all academics agree with this, there is much debate as to how we learn. Learning theory is a topical subject explored by many academics in numerous educational fields (e.g. Spender, 1996; Argote, 1999; Kolb, 2004; Illeris, 2009; Ormrod, 2012).

In psychology and education, learning is commonly defined as a process that brings together cognitive, emotional, and environmental influences and experiences for acquiring, enhancing, or making changes in one's knowledge, skills, values, and world views (Illeris, 2000; Ormrod, 2012). Learning as a process focuses on what happens when the learning takes place. Explanations of what happens constitute learning theory. A learning theory is an attempt to describe how people (and animals) learn, thereby helping us understand the inherently complex process of learning. So, learning theory forms an important aspect to this thesis, understanding

how managers learn is important to understand, not all managers will have undertaken the PGB qualification, understanding the way in which managers who have not undertaken the PGB qualification pick up their skills, knowledge and competence needs to be understood. There has been much interest recently in the identification of a generic list of management competences. The assertion is made that managers who possess and deploy these competences produce effective and/or superior performance in a job (Klemp 1980). It is reasonable, therefore, to infer that managers who display these competences will have positive effects on the performance of their companies. Kakabadse (1991) provides evidence of a primary link between the competence of top team members and organisational performance. “When companies wish to improve competence levels they may choose to send employees on business school programmes” Olle Ten Cate (2006) discusses how competency based PGB programmes are spreading fairly rapidly in response to the new demands. SME business owners need to accept that management development is an essential part of the day to day activities of the company and that any learning which is arranged by the company should be such that it is not only applicable but also acceptable within the company. This requires an influential management development function within the company. How effective Business Schools can be in their relationships with the company is dependent upon the level of sophistication of the company in understanding and implementing management development programmes, as identified by Baker (1973). Baker’s work identifies that when done correctly management training within SMEs can have a positive effect in terms of increased management competence.

It was identified at the beginning of this chapter (2.1.1) that UK SMEs play a significant role in the economic well-being of our nation. Governments invest heavily in helping to train staff within our nation’s SMEs. Attaining an improved understanding of how managers learn and the relevance of the formal PGB qualification can help steer government and employers alike to best spend their training budgets to realise maximum benefit to both our country and the businesses that sponsor employees and managers to undertake business training.

2.2.1 How we learn

Not all managers have a formal PGB management education, as previously discussed many of the UK’s leading business brains opt out of education to concentrate on growing their businesses.

Theories on how we learn has been a topical subject for global researchers for over 100 years, a whole plethora of theories are still being discussed and debated. For many years these theories have covered many different perspectives, different epistemological foundations and very different content. New knowledge and ideas are making some of the older theory redundant, despite this, consensus remains the same; we learn in different ways, to varying depths, utilising different senses, at different stages of our lives that are not always common. The advancement of modern day technology, which results in an ever-increasing understanding of how our brain works, is now at the forefront of modern day thinking. Illeris (2009:1) talks about the way in which we learn, and states; “During the last 10–15 years, learning has become a key topic, not only for professionals and students in the areas of psychology, pedagogy and education, but also in political and economic contexts. One reason for this is that the level of education and skills of nations, companies and individuals is considered a crucial parameter of competition in the present globalised market and knowledge society.”

“Human learning is the combination of processes throughout a lifetime whereby the whole person; body, genetic, physical and biological, and mind; knowledge, skills, attitudes, values, emotions, beliefs and senses, experiences social situations, the perceived content of which is then transformed cognitively, emotively or practically (or through any combination) and integrated into the individual person’s biography resulting in a continually changing (or more experienced) person” (Jarvis [in Illeris] 2009:23).

Illeris (2007:3) states “Learning can broadly be defined as any process that in living organisms leads to permanent capacity change and which is not solely due to biological maturation or ageing.” Like voltage, current and resistance, the terms knowledge, learning and memory need defining in terms of each other. As highlighted by Spender (1996, 63-75) “The knowledge, learning and memorizing literatures are inconsistent in many ways” thus providing varying schools of thought in respect to how we learn both as individuals and as teams. Research suggests that organisational learning is a central means by which firms generate innovations, adapt to environments, take advantage of emergent market opportunities, and create competitive advantage (Cf. Argote, 1999). Fauske & Raybould (2005:22) talk about how “Organisational theory has developed as a lens for examining human organisations over many years.” Despite differences of opinion in respect to their interaction and importance, it is widely recognised that knowledge, learning and memory are the primary characteristics involved when

one talks about organisational learning theory. There are alternative learning theory paradigms, a selection of these paradigms are outlined below⁴;

Behaviourism; the term "Behaviourism" was derived by (Watson (1878–1959). Also known as behavioural psychology, it is a theory of learning based upon the idea that all behaviours are acquired through conditioning. Behaviourists believe that our responses to environmental stimuli shape our behaviours. According to this school of thought, behaviour can be studied in a systematic and observable manner with no attention to the mind's mental state. It suggests that only observable behaviours should be studied, since internal states such as cognitions, emotions, and moods are too subjective. Behaviourism clearly explains some aspects of how we can learn, however the inability of behaviourism to explain the development of more intricate human abilities such as language skills (Chomsky, 2006) led to cognitive views of learning (Berliner, 2006; Bransford, Brown, & Cocking, 2000). According to Haugeland (1978:215) "Cognitivism in psychology and philosophy is roughly the position that intelligent behaviour can (only) be explained by appeal to internal "Cognitive processes," that is, rational thought in a very broad sense." Cognitive theories explain human learning and development in terms of changes in mental structures and intellectual processes involving the acquisition, organisation and utilisation of knowledge (Schunk, 2004). Cognitivism assumes that learners actively construct meaning from sensory input based on past experiences (Royer, 2005).

Cognitive theories grew out of Gestalt psychology, developed in Germany in the early 1900's. The German word gestalt is roughly equivalent to the English configuration or pattern and emphasises the whole of human experience. Over the years, the Gestalt psychologists provided demonstrations and described principles to explain the way we organize our sensations into perceptions. Gestalt psychologists criticise behaviourists for being too dependent on overt behaviour to explain learning. Constructivism, as the term implies, reflects the fundamental theoretical assumption that learners actively construct knowledge (Girvan & Savage, 2010). The origin of such a conceptual framework can be traced to philosophical debate regarding the nature of reality and cognitive-developmental theorists such as Piaget and Vygotsky (Cf. Kotzee, 2010). According to this theoretical perspective, human learning and cognitive development unfold in relation to interaction with others "Social constructivism" (Vygotsky, 1978) and in relation to maturation and personal experience "Cognitive constructivism"

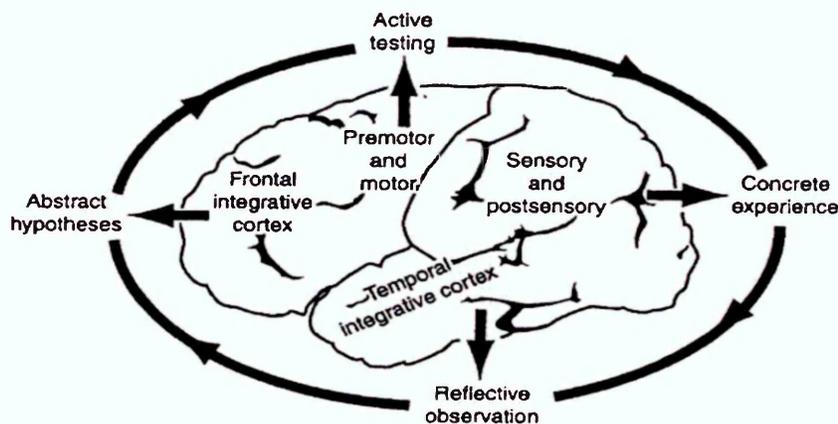
⁴ This is by no means a comprehensive list of all the paradigms, the list serves as guidance only.

(Piaget, 1970). That is, constructivism devised as a conceptual framework for understanding cognitive development.

As children make meaning, their personal and social constructions are ideally suited to their cognitive capacities and vice versa (Luria, 1976). From a constructivist perspective, there is no concept of error or incorrectness (Moats, 2007). Since knowledge is constructed, one construction is not inherently better or worse than another. In understanding human development, such an assumption is not only reasonable, but, in fact, supportive of development. According to Johnson (2012:300) “Development unfolds in response to biological maturation and environmental experience, which interact to enhance cognitive development.” A child’s construction of an airplane as a bird is accurate in relation to his/her existing understanding and experience (Piaget, 1970). In an instructional context, constructivists, rather than correcting and prescribing exactness, celebrate inventive and explorative uses of, e.g. written language (Johnson, 2004). Constructivists are opposed to direct teaching and, instead, focus on facilitating learning with minimal teacher direction (Malikowski et al., 2007). The learning theories of John Dewey, Kurt Lewin, Jean Piaget, William James, Carl Jung, Paulo Freire, Carl Rogers and David Kolb serve as the foundation of constructivist learning theory, these prominent 20th century scholars, developed the experiential learning process and a multi-linear model of adult development (Cf. Kolb, 1984).

Experiential Learning Theory (ELT), this theory is built on six propositions that are shared by the scholars identified above, as identified by Kolb (2005). Kolb (2005:193-212) states “Learning is best conceived as a process, not in terms of outcomes. All learning is relearning. Learning requires the resolution of conflicts between dialectically opposed modes of adaptation to the world. Learning is a holistic process of adaptation to the world. Learning results from synergetic transactions between the person and the environment and learning is the process of creating knowledge.” ELT proposes a constructivist theory of learning whereby social knowledge is created and recreated in the personal knowledge of the learner and it defines learning as the process whereby knowledge is created through the transformation of experience. Kolb (1984:41) states “Knowledge results from the combination of grasping and transforming experience.” Zull (2002), a biologist and founding director of Case Western Reserve University Centre for Innovation in Teaching and Education, sees a link between ELT and neuroscience research, suggesting that this process of experiential learning is related to the process of brain functioning (as shown in Fig. 2.2).

Figure 2.2 Kolbs Learning Cycle



The Experiential Learning Cycle and Regions of the Cerebral Cortex. Note. Reprinted with permission from (Zull 2002).

Newer Post Modern and Educational Neuro-scientific paradigms are now fashionable. Universities throughout the United States such as Harvard, Johns Hopkins, University of Southern California and others, are all offering majors and degrees in these subject areas. Such studies seek to link an understanding of brain processes with classroom instruction and experiences, thus expanding this field of research further, developing further our basic understanding via the utilisation of modern technology in terms of understanding how the brain works and thus how we learn.

2.2.2 Learning Theory and the relevance to this thesis

This thesis is designed and constructed in a way to help us better understand the effect on business results of the PGB manager employed within the UKs SME manufacturing sector. A fundamental factor of the thesis is to better understand how managers learn, my thoughts centre around the idea of educational teaching at PGB level playing a significant part in the enhancement of learning. However, it has been highlighted that we learn in many ways; behaviourism, cognitivism, constructivism, ELT and Educational Neuro-scientific paradigms etc. and these topics have been explored (albeit not comprehensively).

As discussed, not all managers employed have undertaken a formal PGB qualification, so how do these managers learn their skills? Is it via traditional learning theory methods? Are these

methods as productive as a formal PGB qualification? At the onset of this section I mentioned how Learning Theory had been studied and debated by scholars for many years and that there is a plethora of information available on this subject. As technology advances our understanding in this field continues to develop, thus allowing more doors to be opened which facilitate further exploration and understanding of how we learn. Johnson (2012:299) discusses how “Theoretically, instructional science includes focus on human learning (i.e. change in an individual as a consequence of environmental experiences) and development (i.e. change in an individual as a consequence of biological maturation).” While White et al (2011:42) note that “Theory construction is the central goal of science, where theories are coherent bodies of concepts, laws and models, which account for a wide range of observations and enable humans to predict, control and explain what happens as event occur.” My thoughts are that via the undertaking of a PGB qualification the manager are better positioned to succeed in their role through the additional learning processes that they have undertaken.

Not all managers have undertaken a PGB learning process, but they do manage their businesses regardless of this fact. I need to better understand how they attain the skills and competencies they need to manage their businesses as successfully as they do. Understanding the basics of how we learn should help me to deconstruct interview dialect and attempt to make sense of the meaning behind the statements that the interviewees make, I can then relate this back to the relevant school of learning theory and discuss my findings. This information will then be utilised to build a set of guiding principles around how managers attain knowledge, skill sets, confidence, competence and understanding that gives them the ability to manage their businesses. Comparisons can then be made between PGB and BM managed businesses.

My experience has led me to form ideas about how I learn, how I build my knowledge, skill sets, competence, understanding and the importance of education in my career. Throughout the interviews I will be looking for signs of how others learn. I think that if I can have an improved understanding of the basic principles of learning theory, along with the newer more modern thoughts that are developing in this research field, this will help me identify aspects that could be significant in ensuring I have a more holistic understanding of the manager who achieves strong results.

So what about that manager? The educational level of the business manager has previously been linked to firm performance as highlighted by Norburn & Birley, (1988), the degree of

firm innovation (Bantel & Jackson, 1989), and the changes in corporate strategy (Wiersema & Bantel, 1992). Additional to this, the levels of formal education attained by managers and their educational background have been suggested as factors affecting the strategic development process within a business (Karami, 2006). So, the business manager has an important part to play in business development, the educational background of that manager is highlighted as being important, but is education fundamental to learning? The MBA is a very popular choice, with over 100,000 MBA students graduating every year (Deans Digest, 2014). The MBA qualification is chosen by students wishing to succeed in global business management, it is my guess that the majority of these students believe that the PGB qualification enhances their learning capacity and, as such will help them throughout their careers. The following section explores the PGB qualification in more detail.

2.3 Management theory, teaching and the current debate.

This section reviews the literature surrounding PGB and management education, it explores historical thinking around business and education, the link to individual performance based on educational background, the suitability of business teaching, links to capability and the manager employed. The sheer degree of research undertaken in respect to management practice and education demonstrates the importance of the subject matter.

2.3.1 Education

According to Sturdy (2006:842) “The search for means through which ostensibly useful ideas and techniques can be acquired and then applied to improve organisational effectiveness has become somewhat of a holy grail.” Business management, the techniques used, and the people empowered to manage businesses have been explored for hundreds of years. Adam Smith (1776) investigated productivity growth way back in the 18th century; business management has developed significantly over this period to the point that there are now thousands of global business schools teaching managers business management skills, the most prominent being the MBA. Albeit much debate surrounds the relevance of the current MBA program, the program remains pretty stable and has for many years.

The following, detailed on the University of Berkeley’s website (www.ucberkeley.com), remains pretty much the norm for business teaching throughout global business schools as we

see them today; The core curriculum provides a solid foundation, rooted in business fundamentals, such as marketing, finance, accounting, and operations. Beyond the core, you are able to tailor your education to meet your goals and interests through a wide variety of cutting-edge elective offerings and global opportunities (Berkeley Haas, 2015). The curriculums offered by Cambridge, Harvard and Berkeley which are renowned well established business schools are now detailed; Cambridge; Corporate finance, Accounting, Operations management, Management Practice, Marketing. Harvard; Finance I, Financial Reporting and Control (FRC), Leadership and organisational Behavior (LEAD), Marketing, Technology and Operations Management (TOM), Business, Government, and the International Economy (BGIE), Strategy, The Entrepreneurial Manager (TEM), Finance II, Leadership and Corporate Accountability (LCA). Berkeley; Data & Decisions, Leading People, Leadership Communication, Microeconomics (Economics for Business Decision Making), Financial Accounting, Introduction to Finance, Marketing management, Problem Finding, Problem Solving, Macroeconomics in the Global Economy, Operations, Ethics and Responsibility in Business, Strategy, Structure, Incentives, and Applied Innovation. The above is detailed to demonstrate the relevance of the strategic tools I chose to research within the context of this thesis.

The core competencies being taught globally today remains pretty stable; Finance, Leadership & Management, Marketing, Operations, Strategy, Innovation/Entrepreneurialism, therefore I feel comfortable with the strategic tools I have chosen to research.

The level of formal education and the type of education (business or non- business) provides some measure of an individual's knowledge and capability base (Hambrick & Mason, 1984; Hitt & Tyler, 1991). Some scholars have hypothesised that better educated decision makers are more likely to be open minded, interested in foreign affairs and willing to objectively evaluate the benefits accruing from international business (Garnier, 1982). Sturdy (2006:844) discusses management education with a particular focus on self-confidence, as demonstrated in the following passage “Conventional notions of acquiring, translating and applying management tools and frameworks are barely significant. Rather, what we might consider to be the learning of explicit management knowledge is more the development of a form of self-confidence.” Others have claimed that higher level education is vital for success in overseas operations, since it enhances management knowledge and capabilities (Schlegelmilch & Ross, 1987). There is certainly plenty of literature linking education to business performance and capability.

I recognise that the PGB qualification is only one of many qualifications that a business manager may hold. In order to better understand the development of business thinking and the practice of management it is firstly important that one looks at the past. Understanding the past often helps us to better understand the development of the subject under investigation. At the end of the last century historical business management thinking explored these themes; how is knowledge created in organisations, (learning theory)? What is the subject-matter of organisational learning? In what way are knowledge and learning connected with practice?

These themes became of central importance as they started to be researched and questioned. Taylor (1967) tells us that much of the knowledge necessary intended for the firm's functioning comes not from outside, prior to the firm's existence, but from the creativity of the shop floor craftsmen. This is consistent with Adam Smith's (1776) explanation in the Wealth of Nations, Smith talks of craft creativity being the key to productivity growth. In scientific management the firm's knowledge is not left with the craftsmen, but instead is analysed and harvested by rigorous observation; this in effect became work study, scientifically evaluated by trained staff, and articulated into the tools and procedures to be followed by the re-trained workforce.

Taylor (1967) talks about how the ingenuity of each generation has developed quicker and better methods for doing every element of the work in every trade. So, we hear from Taylor that his view on best method stems from the practice of sharing knowledge amongst the workforce and passing down ideas from generation to generation. Taylor goes on to discuss management practice and how the most experienced managers simply leave the efficiency gains to be sought by the workman's initiative. Taylor discusses how they recognise the task before them as that of inducing each workman to use his best endeavours, his hardest work, all his traditional knowledge, his skill, his ingenuity, and his good-will in a word, his initiative, so as to yield the largest possible return to his employer. The problem before the management may be briefly said to be that of obtaining the best initiative of every work man. Taylor uses the word initiative in its broadest sense, to cover all of the good qualities sought for from the men.

Taylor's work pays no mention to education or knowledge attainment from outside the firm, there is no mention of motivational techniques, strategy, sales and marketing, team working, planning or method change, just the passing down of the best ideas and practices, primarily related to the production process. The above highlights that many of the buzzwords attributed

to management practice today were not even recognised in the early days of management teachings and understanding. This changed somewhat rather quickly via the work of Henri Fayol et al (1914).

Alongside Taylor the name of Henri Fayol stands high amongst pioneers in the development of management (business administration) as a field for study in its own right. He is one of a small group of individuals who are commonly regarded as having made an exceptional contribution to early management thinking and practice, and whose ideas merit study today. Text books on management are not usually strong in historical perspective, but Fayol's is one of the very few names one can expect to see mentioned in any historical preamble.

Fayol (1914) suggested that his 14 management principles were; “The general principles of management.” Fayol identified this in his 1916 piece of work titled: “Administration Industrielle et Générale” which first appeared in the third number of the Bulletin de la Société de l'Industrie Minière for 1916. It was first translated into English by Coubrough in 1929, thirteen years after publication, and then by Constance Storrs in 1949. It is the latter translation which is in widespread use under the title of General and Industrial Management. So, a school of management theorists developed. Fayol alongside Rathenau in Germany around 1900, took management theory to the next level, it is this thinking that underlies today's orthodoxy, this thinking, for instance, is a basic assumption that has been held by practically all management theorists and by most practitioners since the earliest days of thinking about organisation.

It has often been taken for granted that there is one right form of organisation as identified by Drucker (1998:38) who states “Henri Fayol laid down the principle that there was one right structure for every manufacturing enterprise: a functional division into engineering, manufacturing, selling, finance and personnel, each division to be managed separately and to come together only at the level of the chief executive.” Though theories about what constitutes the right form of organisation have changed several times in the past century, practitioners and students of management still hold the assumption that there is a single right form of organisation for every business. As Drucker (1998:38) identifies “This is just one of seven underlying assumptions about organisation that are out of date: that there is only one right way to organize a business; that the principles of management apply only to business organisations; that there is a single right way to manage people.”

Way back, the right way was top down control centralisation. Later, decentralisation came into vogue. Today the team approach is considered to be ideal; that technologies, markets and end-uses are fixed and rarely overlap; that is, each industry has a specific technology and a specific market; that management's scope is legally defined as applying only to an organisation's assets and employees. So, we see that business management and the educational perspective is in a constant flux of change, my personal thinking is that management education needs to further evolve to move towards a more formal educational approach to the teachings, the teachings albeit briefly explored are not the core aspect to education and performance in respect to this thesis. My thinking, hence this thesis, questions the management teaching methods and techniques which are extensively used by business consultants and practitioners today.

Business management today includes these topics; motivational techniques, strategy, sales and marketing, team working, planning or method change alongside many more, so it is fair to assume that management practice of the modern world has changed over what it was historically in Taylor's day. So, management practice and the educational link has developed and today we often hear the term "Professional business managers" (Morten et al., 2010; Egbers & Schenck 2013). While there is considerable debate regarding what constitutes their role, professional business managers have typically received formal training in a business school setting, in areas such as finance, production, accounting, and personnel (Dyer, 1989:221) as highlighted above where the MBA curricula is discussed in more detail. Moreover, those formally trained in PGB management generally fit the criteria for professionalism suggested by Schein (1968).

Schein (1968:80) discusses professional business managers and states; "Their actions are driven by a set of general principles or propositions independent of a particular case under consideration, they are deemed to be experts in the field of management and to know what is good for the client, their relationships with clients are considered helpful and objective, they gain status by accomplishment as opposed to status based on ties to the family and they belong to voluntary associations of fellow professionals". Morten et al. (2010) explore this further in their work titled "The Best Performing Chief Executive Officers (CEOs) in the World" by reviewing the performance of a selection of global business CEOs. The sample size used is three thousand one hundred and forty-three. The method used to measure success is debated and debateable and it is clear that this work was not undertaken within SMEs, however, an agreed measure is found and the CEOs are ranked. The top one hundred companies are then

listed along with their CEOs, as are the bottom one hundred. The top one hundred company's results are therefore attributed to the quality of the CEO of the organisation, hence the statement referring to CEO's as top performers and bottom performers.

It is therefore fair to assume that this article along with many others imply that success is attributed to good management, failure the opposite. In the same article Morten et al., (2010) talk about the importance of MBAs as the qualification is seen as a contributor towards the successful CEO/manager, Morten et al. (2010:81) state; "In the wake of the financial crisis MBAs were accused of being value destroyers. We supplied the debate with some contrary data in 2010, showing that the average MBA ranked 40 places higher in the study sample than the average non MBA. We saw similar results in this year's list". Although there is debate, there is certainly a correlation, as identified in this article, that MBAs actually improve performance across a selection of the world's largest global businesses, measured in this case by the performance of the CEO. This thesis explores this same phenomenon but with concentrated effort on UK manufacturing SMEs.

It has been identified by others (Schein, 1968; Dyer, 1989, Egbers & Schenck, 2013; Morten et al., 2010) that the importance of a good manager is all too evident, as Egbers and Schenck, (2013:73) point out; "The reason Donald Trump says "you're fired" on 'The Apprentice'⁵ is often because the leader has not laid the critical groundwork for success by assimilating effectively with the team and the demands of the new role. Just like in the real world, this causes a leader to underperform." There is a strong body of opinion that business educational background correlates to business success, however this inference regards business performance and educational background is not supported by all, as Winter et al. (2003:536) state: "Successful businesses are likely to continue, either with the same manager or with a different one." So, what more can we learn? Dyer (1989:221) goes on to say "This is not to say that all those who receive management training are necessarily professional business managers and do not necessarily out-perform those that have not undertaken any professional management training," the debate is still open. We have now seen how business management and business educational understanding has evolved from Taylors' working best practice to a modern day art and style customarily linked to the birth of the professional business manager. The professional business manager and the facets attributed to this person are now explored.

⁵ Popular global TV business programme

2.3.2 The Professional business manager, SMEs and performance.

Management skills, styles and characteristics surrounding SMEs dominate much of the current SME research literature. Management style is often cited as the single most significant factor influencing the development of a business, see; (Tate et al., 1975; Dun & Bradstreet, 1979; Broom et al., 1983; Gibb, 1997; Perren & Grant, 2001). A report by the Centre for Enterprise (2001) which explored the essential management skills needed to ensure SME business growth and highlights that leadership, business development, people development, relationship management and strategic management skills are important skill components that successful businesses prefer to develop to ensure prosperity. Indeed, there is statistical support for the debate that the standard and experience of managers is the most important factor in defining business success. One example of such statistical evidence is Dun and Bradstreet's Business Failures Records (1979).

Tate et al. (1975) identify that SMEs are normally managed by managers with a limited formal business education, this view is supported by Broom et al. (1983). Broom et al (1983:585) state that “Small business problems and failures arise out of: lack of managerial skill and depth; and a personal lack and misuse of time.” Gibb (1997) along with Perren and Grant (2001) highlights that the skills associated with strategic management, business planning, relationship management, team building and marketing are important for small business managers to become proficient in, subjects which are highlighted in the PGB curricula as critical to business management training. They adopt the view that a practical assessment of management development skill needs within SMEs should be based on a broad definition of capabilities that can accommodate all the abilities necessary to manage a business as it grows. The above suggests professional business managers are not very prevalent in the SME sector, the research will determine levels within this sector, thus adding knowledge to whether or not professional business managers are prevalent within the UKs manufacturing SME sector and how they perform.

Another important aspect to understand in respect to professional business managers is the employment package. Daily and Dollinger (1992:122) highlight that “The motivations for professional business managers to pursue growth and increase the size of their firms are manifold,” and that there is a positive relationship between executive compensation and firm size so professionally managed firms must accommodate the advancement of managers

through such means as promotions. Executive compensation is often based on both size and growth considerations, at the expense of profitability (Baumol, 1959). Managers, in other words, are often paid in relation to the size of their organisation, not its profitability (Finkelstein & Hambrick, 1989). Crystal (1990) has reported that a 10% increase in firm size brings, on average, a 2% increase in the pay of the manager. In addition, Deckop (1988:215) has commented, “It is “Common wisdom” among professionals in the field of executive compensation that firm size is the best predictor of management compensation.”

Those studies provide some evidence of the importance of the relationship between management type, firm size, and firm outcomes. Third, it is only through the growth of the firm that new opportunities will be found for professional business managers. As the firm grows, new positions will be created out of necessity, this then allows for the advancement of managers within the organisation. As identified above, SMEs are nominally known to be inward thinking and lacking ambition, professional business managers who have attained a higher level of education and hold business degrees are expected to apply a more strategic focus to business activity and to generate a wider range of inspired solutions when faced with complex problems. This thesis explores these claims. So, we have established that the professional business manager is out there and that there are links to performance, personal ambition and capability, the thesis explores these characteristics via survey and interview questions thus adding to knowledge in this research sector.

The points discussed above get me thinking about the competence of the manager employed, as not all business managers will be academically strong enough to jump straight on board and undertake a PGB qualification. So, are there training programs in place to help managers improve their competence? With this in mind the literature around management training and competence is now explored further.

2.3.3 Management competence and training.

Shavelson (2013:74) discusses employers, educators and policymakers, and how the demand is that businesses need to be prepared for 21st-Century, with skills such as critical thinking, analytic reasoning, problem solving, and communicating being critical to business management success. The intent is to have a citizenry that is prepared to participate as managers, workers, and lifelong learners in an ever constantly changing world. This research

examines the results attained by BPG in respect to growth, it asks questions around thinking, reasoning and problem solving thus appraising the effectiveness of the how prepared UK manufacturing SME businesses are for the 21st century challenges.

Today's business needs go beyond simply knowing and include applying knowledge to everyday problems and tasks in the working environment with a degree of competence and confidence in order to achieve positive business results. Throughout this research questions are asked around how managers learn and what processes managers undertake to attain the skills needed to successfully manage their respective businesses, thus evaluating the suitability of the Post-graduate syllabus. Leadership and management competence attracts much interest between academics when business performance is discussed, as touched on earlier in 2.1.3. Chaubey and Subramanian (2014:31) state "In spite of a large volume of work on leadership variables and effectiveness there is still no convergence of opinion on development of Managerial competence through leadership." According to Jaros (2014:898) "Leadership programs offered by many institutions based on classical theories lack relevance to real world situations" Jaros also states; "It is an outstanding intellectual and leadership challenge in higher education to develop effective 'competence' delivery and evaluation practices complementary to and building upon the traditional programs." This work explores results attained by business Post Graduates and questions Jaros's (2014) view as to whether higher education is suitably teaching the current crop of business managers. When one explores competence further one finds a whole host of definitions; According to Hartig et al (2008:87), in broad terms, competence is a "Complex ability ... that ... [is] closely related to performance in real-life situations". Real life performance is what this work is about.

Hartig et al., (2008) more specifically, Shavelson, (2010) see also (Weinert, 2001) identified seven facets of competence and its assessment: (a) *complexity*—a complex physical and/or intellectual ability or skill; (b) *performance*—a capacity not just to "know" but also to be able to do or perform; (c) *standardization*—there are well-recognised tasks that competent individuals would be expected to perform; (d) *fidelity*—tasks sampled from actual situations in which competency is to be demonstrated in the real world; (e) *level*—performance meets some level of "Good enough"; (f) *improvement*—the abilities and skills measured can be improved over time by deliberative practice; and (g) *disposition*—personal and social characteristics that dispose a person to high levels of learning and performance such as identity, perspective taking, self-regulation, and social responsibility. Competency based training suggests that competence

and competencies are what we want trainees to attain, linking both competence, competencies and confidence to Business Post-Graduates and the training program they have undertaken.

Moving more specifically to SMEs, Ottewill et al. (2000:246) link competence to SME performance when they state “Over the last two decades there has been a substantial increase in the number and range of service sector SMEs. The management competence of the owner-manager and/or senior staff is crucial to their success, and we conclude by stating that from the viewpoint of the long term survival and growth of professional service SMEs, a critical aspect is the management competence of the owner manager and senior personnel.” Olle Ten Cate (2006) discusses competence, confidence and training and explains how the United Kingdom has introduced competency models and that other countries are following. Paramount in these developments is the view that quality of training should be reflected in the quality of the outcome, that is, the performance of its Business Post-Graduates.

So, it is recognised (Chaubey and Subramanian, 2014; Shavelson, 2010; Hartig et al, 2008 & Weinert, 2001) that competence, training and educational programs are viewed as being important characteristics attributed towards successful leadership and business prosperity, and there is some agreement on the need to prepare managers for the skills they will need throughout the 21st-Century. As Hartig, Klieme, and Leutner noted (2008), “The theoretical modeling of competencies, their assessment, and the usage of assessment results in practice present new challenges for psychological and educational research”. This research will explore this line of inquiry. Whereas researchers assume that management development and training can be directly related to improved competence and confidence which in turn is linked to business performance, the focus has been on management development as a holistic intervention. Few have actually investigated a link between the various component management skills/ techniques and performance to understand if this assumption is founded. The research will explore via face to face interviews respondent’s views on competence, confidence and training as taught within the UK’s Post Graduate business schools. The focus of prior literature now moves onto business strategy.

2.4 Business Strategy

This section explores the key areas (as essentially identified by Fayol, 1916) of business strategy. QAA benchmarks (2013:2.1) policy states “The overall objective of master's level

business and management degrees is to educate individuals as managers and business specialists, and thus to improve the quality of management as a profession.” Business strategy forms part of that education. In addition to the formal master’s level business programme taught within business schools/universities, many other training providers teach current and prospective business managers the principles of business strategy. Also, as highlighted earlier, you do not necessarily need to undertake any form of formal training to learn new things; peer to peer learning, mentor training and experience alone are ways in which learning can take place. The use of strategic tools, learning methods employed and key performance relationships to the strategic tools is explored within the research, both via survey questions and management interviews.

As previously explained, I need to identify the critical variables that can be attributed towards business growth, exploring the strategic tools employed may identify critical business tools that need to be employed within manufacturing SMEs to ensure growth ambitions are realised. It is to satisfy the aims and objectives that business strategy and the tools deployed to achieve the chosen business strategic path are explored. So, my thoughts are that PGB will be utilising taught strategic tools more so than BM and that this will positively influence business growth results. I am not the first to think this, business strategy and the links to business performance are widely researched, albeit previous research around this area is more generic and not as focused. The majority of the literature on corporate performance in SMEs has indicated that the absence of formal strategic planning (or inadequacies in its process) can be directly linked with failure, while its presence can be linked to success (Bracker & Pearson, 1986; Stoner, 1983). However, this view is not shared by all, Robinson and Pearce (1983) identify that a degree of other evidence fails to find a relationship between formal strategic planning and business success.

2.4.1 The divisions of a strategically planned business.

Sales and Marketing; The success of SMEs following an ambition of growth depends in large part on the formulation and implementation of a sales and marketing strategy see; (Miles & Snow, 1978; Porter, 1980). The sales and marketing strategy reflects the firm's short and long term responses to the challenges and opportunities posed by the business environment (Knight, 2000). Marketing has been widely acknowledged as being the most important of all business activities (Mc Kenna, 1991) and is critical for the survival and growth of the small business

(Romano & Ratnatunga, 1991). Successful modern businesses are ones that understand and meet the requirements of their customers. Huang and Brown (1999:77) state; “Sales and marketing issues are the most dominant problems encountered by small business operators.” They identified that 40.2% of respondents to their 1999 survey reported problems in this area. This was by far the highest problem area identified. Carson (1985) discusses marketing constraints and SMEs, identifying three common constraints; limited resources, specialist expertise and limited impact on the market place. Consequently, the impact of a small firm's presence in an industry, geographic area, or whatever, is likely to be limited due to its size alone. Similarly, because of limited resources and lack of marketing expertise, the impact on the media through advertising and publicity will often be negligible in relation to large company activities.

Nilson (1994) discusses the salespersons role, highlighting various pertinent aspects relating to SMEs, it was shown in Hill's work that the sales orientation of SMEs is what determines their marketing character. Dart and Pendleton (1984) argue that most textbooks, educational establishments and researchers direct their thinking towards the promotional activities of large organisations and write that these are not easily adapted to suit small firms. Indeed, there is something of a dearth of published research into entrepreneurial small firms' use of promotion/marketing in general and in respect of personal selling in particular, yet Borden (1964), Jackson and Parasuraman (1986) and Nilson (1994) all feel that small firms mainly use individual selling to connect with their target audience. Hodgetts and Kuratko (1995) also write that the art and science of selling are important to the survival of every small business. They note that the owner-manager cannot do all of the selling and must have help, especially as a business grows.

Williams and Seminerio (1985) generated an extensive list of salesperson attributes including: thoroughness and follow-through; knowledge of the product line; willingness to go into bat for the buyer within the supplier's firm; market knowledge and willingness to keep the buyer posted; imagination in applying his products to the buyer's needs; knowledge of the buyer's product lines; diplomacy in dealing with operating departments; preparation for well-planned sales calls; regularity of sales calls and technical education. Phillips (1988) also stresses such abilities as effective communication, relationship building, influencing and the ability to conduct a natural sales conversation. Flynn (1992) Weilbaker (1990) and Hulbert et al., (2013) offer a range of skills that are viewed as being important to effective personal selling. These

include; product knowledge, professionalism, selling skills, appearance, courtesy, manners, honesty, reliability and clarity.

Carson et al. (1995) suggest that, as a small firm grows, its ability to cope with change is determined by new sales. These new sales may come from existing markets and customers and/or from new markets. Carson et al.'s (1995) contention is that, in order to generate these new sales, the SME must employ some form of marketing activity, most probably a combination of products, price, promotion and distribution. The implication here is that whilst there is an emphasis on personal selling in the SME, to sell effectively the small firm owner/manager/decision maker must draw on other marketing variables.

So, how does any small firm get involved in marketing? As Carson (1985:7) points out "Surely every firm needs customers, therefore every firm, if it is to become established and thrive, must automatically be involved in some aspect of marketing? Marketing activities which are performed instinctively are of undoubted importance to a firm's survival. But the question of why small firms are not more considerate of their marketing function must be asked. Why don't they give it the same rating of importance as, say, finance and accounting functions?"

The problem of affordability is fairly obvious and generally recognised, as identified above. But, there is another less immediately apparent problem which is a substantial issue when considering marketing in small firms, this issue concerns not only the style of management in a small firm, but also the very size of the business operation and the ability to employ specialists. Many standard marketing texts appear to assume the presence of a marketing manager/specialist and infer that a prerequisite of successful marketing is the presence of a specialist in the field; see (Dart & Pendleton, 1984; Hulbert et al., 2013). The marketing literature advocates that market driven firms use processes for gathering, interpreting and using market information and as Day (1994:41) points out "Are more systematic, thoughtful and anticipatory than other firms." However, the characteristics and nature of SMEs and how owner/managers do business does not fit well with such formal structured approaches. Traditional marketing approaches that are logical and systematic can require large budgets, hence the need to be adapted considerably to fit small growing businesses that rely very heavily on the experiential knowledge and expertise of the owner/manager with a small operational budget (Cf. Hulbert et al., 2013).

Broom et al, (1983) observed a general weakness in marketing by small firms and have suggested that this may be a consequence of the difficulty small firms have in attracting and affording qualified personnel, it is apparent therefore that most small firms do not have a marketing manager or specialist. In a similar vein, Gaedeke and Tootelia (1983:19) comment that “An owner of a small firm needs to be, or become, their own "Expert" in many areas because, unlike a large company, he is not usually in a position to employ experts.” It is because of this need to be a general specialist that Schollhammer and Kuriloff (1980:180) note that “An essential difference in managing small and large firms is that, in the former, the focus is on the pragmatic use of techniques as aids to problem solving, whereas in the latter it is on achieving high co-ordination of control of specialists.”

Hulbert et al (2013:296) point out that “The marketing literature, the marketing audit or situation analysis refers to looking for or sourcing opportunities, but there is little or no description of what those opportunities might be. There is the assumption that the marketer will automatically recognize these opportunities when examining the data.” However, apart from the generic growth strategies depicted as organic or acquisition growth, the most common approach to determining potential growth strategies in academic literature is that of Ansoff’s (1975) product/market matrix. The matrix illustrates four combinations of existing and new products with existing and new markets when viewed from an individual firm’s perspective and these combinations suggest four possible growth strategies; market penetration, market development, product development and diversification.

It is recognised that the Ansoff matrix now forms part of a more classical approach to marketing and therefore the meaning of terms such as new market have developed to include how value is delivered to customers through new business models such as online retailing or customer loyalty programmes. However, these four growth strategies provide the contexts for finding sources of opportunity for SMEs and can be used to identify potential opportunities which are determined by the combination of current and new products and current and new markets. Although the Ansoff matrix is often a standard text to marketing professionals and PGB, I ask how the BM SME owner/manager learns about such tools, and even if they do, how do they learn to apply them? There are alternate training providers; www.ukti.gov.uk, www.pera.com and www.eef.org.uk, however, many of these training programs are often short and only provide an overview of the management tools available, more often than not, these courses do not consist of any formal examination. One aspect that needs to be considered closely when

deploying Ansoff's matrix is finance, it this all costs money, yet identified earlier raising funds is not always easy within SMEs.

Finance; Finance departments are often discussed, King (2007:2) states "Lack of capital is often the most critical challenge that a successful SME faces, as its very success creates this and it quickly becomes a vicious circle. Without very diligent cash flow management and/or raising of more capital, including debt, the business is often constrained by capital as it grows. Often the profit in one operating cycle is insufficient to fund the extra working capital required for the next operating cycle." Insufficient finance often means that businesses are unable to take opportunities that are available to them, or have to compromise going for high cost solutions to problems, rather than lower cost ones that would yield greater competitive advantage, hence finance is another problem area for SMEs (Yusaf, 1997). Dodge et al. (1994) found that financing and financial management problems, such as inadequate capital and cash flow, are frequently encountered by SMEs.

Many businesses struggle to balance the books; at times we struggle in our business (Cooper) to get cash in before it is due out. It is all very well having good business ideas, good products and a large demand for these products but without cash to finance all of this it can all easily fall apart. Over the last five to seven years our business has witnessed double digit growth, some years as high as 30% year on year growth. Financing this growth during the 2008–2012 economic down turn has been all but impossible at times. Banks have not been lending to SMEs without security, security is an issue as many SME owner/managers, (including our business owners), are not prepared to put their house on the line. As Sunday (2011:271) points out "The need to maintain effective working capital limits within SMEs remains pivotal to solvency and liquidity of SMEs."

Many businesses try to grow too quickly, and end up borrowing too much money from organisations that charge crippling interest repayment charges, these business often end up failing, not because they are not profitable but simply because they run out of cash. As Hudson et al. (2001:805) point out "Research has demonstrated that the use of performance measures in SMEs is limited". Financial measures, which are required for examination by external stakeholders, are generally not well developed. Liquidity ratios, cash flow forecasts, activity based costing can all be useful tools to have in a manager's toolkit. However, according to Hudson et al. (2008) operational measures are typically ad hoc and lack formal structure. A

structured approach to measuring performance in SMEs should improve strategic control, like the financial measures that are nominally in place to satisfy external stakeholder interests. Current approaches, however, have proved inadequate for the specific requirements of the SME sector. This identifies a further strategic need within any SME, the requirement for close attentive strategic business planning.

Strategic Planning; Preble (1997) discusses strategic planning and many of the characteristics surrounding it, in summary the characteristics discussed evolve around the mid-term future of the organisation and enhancing its success by dealing with weaknesses and threats as well as the strengths and opportunities that present themselves to the organisation. It involves selecting from a range of strategies and building a plan to carry out those strategies, including marshalling the resources and organisational elements necessary to carry out the plan and evaluate its performance. Considerable evidence shows that strategic planning leads to increased firm performance, (Cf. Piest 1994; Peel & Bridge 1998; Terziovski, 2010). Terziovski (2010) identifies that the literature generally agrees that organisations with formal strategies performed better than those without strategies see O'Regan, Ghobadian, and Gallear (2006). However, SMEs typically have informal strategies, largely driven by their chief executive officers (CEOs), compared to larger organisations, which generally have separate strategic planning units (Hudson et. al. 2001). Kraus, Reiche, and Reschke in Terziovski (2009:112) sum up SMEs' perceptions of strategic planning as, "Formal planning is often regarded as limited to large enterprises and thus not transferable to the requirements of the fast-moving and flexibly structured SMEs."

The value of strategic planning is argued to be dependent on the circumstances facing SMEs. For example, Piest (1994) in commenting on the relationship between strategic planning and business performance, reports conflicting results with some studies finding no association between planning and performance, whilst others report a positive relationship. However, his own research, designed to examine the relationship between strategic variability and planning comprehensiveness, lent only limited support to there being a positive association between these attributes, and no support was given to the contention that when strategic variability is high, companies should have comprehensive planning processes. Yet, as stated by Wang et al (2007:1) "The majority of SMEs do not plan and the reasons why are not well understood."

Strategic planning is considered to be in its adolescence in comparison to other areas of business activity. Strategic planning is concerned with the setting of long-term organisational goals, the development and implementation of plans to achieve these goals, and the allocation or diversion of resources necessary for realising these goals (Stonehouse & Pemberton, 2002; O'Regan & Ghobadian 2004). In a practical sense, strategic planning is about competitive advantage within the private sector. This is encapsulated by Ohmae (1983 in O'Regan & Ghobadian, 2002:664) who state that “The purpose of strategic planning is to enable a business to gain as efficiently as possible, a sustainable edge over its competitors.”

This is supported in the empirical literature, for example; SMEs that engage in strategic planning (compared to those that do not) are more likely to be those that achieve higher sales growth, higher returns on assets, higher margins on profit and higher employee growth and be more prepared for crisis should they evolve (Bracker, Keats & Pearson, 1988; Berman et al., 1997; Carland & Carland, 2003; Gibson & Casser, 2005; Vargo & Seville, 2011). Moreover, SMEs that engage in strategic planning are also more likely to be those enterprises that are more innovative, that have more newly patented products, that employ new process and management technologies, and that achieve international growth (Upton, Teal & Felan, 2001; Beaver & Prince, 2002; Stewart, 2002; Gibbons & O'Connor, 2005).

Perhaps most importantly, SMEs that engage in strategic planning are less likely to be those that fail i.e. involuntarily wound up (Gaskill, Van Auken & Manning, 1993; Perry, 2001; Vargo, 2011). While it is certainly true that SME performance success is driven by more than strategic planning alone, findings generally support the contention that there are, on balance, greater advantages to planning than not planning (Peel & Bridge, 1998; Piest, 1994, Vargo & Seville, 2011). However, given all the evidence, it is well recognised that strategic planning is rare or non-existent in the majority of SMEs, as highlighted by Pofeldt (2013:48) “Not all small-business owners intend to stay small forever, but few take the time to map out how they plan to grow.”

In practice, SMEs tend to orientate towards short-term operation rather than long-term strategy, and decision making tends to be reactive rather than proactive (Jones, 1982; Gaskill, van Auken & Manning, 1993; Brouthers, Andriessen & Nicolaes, 1998; Stonehouse & Pemberton, 2002; Mazzarol, 2004). In SMEs that claim to plan, plans are frequently ad hoc and intuitive rather than formally written, and provide little basis upon which business performance can be

measured or analysed (Kelmar & Noy, 1990). The reason why some SMEs do strategic planning while others do not is generally not well understood (O'Regan & Ghobadian, 2002). However; Stonehouse & Pemberton (2002:860) suggests that; "It could also be argued, however, that a greater use of strategic planning tools for the analysis of the business environment, as well as for internal analysis, would facilitate improved organisational learning, enhance strategic thinking and help to reduce failure rates among SMEs."

A lack of awareness of the relevant strategic tools, rather than a perception that they are inappropriate, may be a fundamental reason for their under-utilisation by SME business managers, although it is possible that they have been considered and their use rejected. This study explores the use of a selection of the above mentioned business tools alongside some common business improvement tools and customer forced business requirements; ISO 9001, performance reviews, key performance indicators and the utilisation of vision and mission statements. The use of said tools and the fundament link to their use by PGB managers who will have been taught how to use them throughout their learning journey is compared to the use BM. So, when the sales and marketing team identify via the utilisation of the Ansoff matrix that the product portfolio needs to expand, and the financial implications are well planned where do the new products come from?

New Product Development; New product development and strategic orientation towards new product development is a topic of much discussion within the SME sector; as stated by Blair (DTI article, 1998:87) "In a fast changing world, leading businesses are ones that make best use of advanced modern technologies in an appropriate way. Firms that operate with out-dated technologies and methods frequently find themselves at a cost disadvantage over more dynamic rivals," this statement by Blair, suggests opportunities for both equipment suppliers and equipment users in terms of keeping abreast with current technology. If manufacturing SMEs choose to take advantage of technology then they must be constantly updating their capital equipment, likewise if capital equipment suppliers target staying ahead in their sector then they need to ensure new technology is incorporated into the equipment they supply. Blair highlights that the task of creating an innovative industrial society is not an easy one. Zhuang et al. (1999) argue that innovation activities are under recognised and thus there is a lack of resource committed to this type of activity.

The Confederation of British Industry (CBI) is also interested in promoting innovation and monitors its progress in UK companies (CBI, 1999). Innovation is most often associated with higher priced goods, but this link represents only one of a number of possibilities. It can also contribute to lower costs and prices (Utterback, 1994). New product development is seen by many academics and industrialists as a major source of increased sales volume and improved profit margins (Kotler, 1999). Such efforts are generally directed primarily to new and growing industries, as this offers the highest scope for growing sales. In addition, they are less likely to suffer from over-capacity which brings with it reduced prices. By definition mature markets have either slowed or stopped their growth in demand. Further, it is widely agreed that profit margins contract when over-capacity occurs and firms fight for a share of a fixed market (Porter, 1985). In the mature phase, there is also a tendency for differentiation between products to reduce as each competitor copies the best features of their rivals' products (Grant, 1998). Successful NPD programmes can reverse these trends restoring growth and profitability. Grant (1998) highlights that the production of differentiated new products can improve competitiveness at any phase of the market.

2.4.2 Strategy; The 14 tools explored

Strategic aspects of business functionality; Executive programs typically emphasise the synergistic use of core competencies and delivery systems in a way that enables one to truly master business administration. MBA programs have changed and adapted over the course of the last 50 years in order to keep abreast of student needs alongside a more recent wave of change towards specialisation or finding a niche in the marketplace. Consequently, business schools often differentiate their offerings by emphasising a functional strength with a high quality faculty in that functional area. For example, Wharton and the University of Toronto have historically emphasised finance, whereas Northwestern has emphasised its strengths in marketing, (Latham et al, 2004; D'Aveni, 1996). "Business schools were severely criticised for failing to enhance the intellectual attributes of managers" (Latham et al, 2004:4). The result was the hiring of scholars from the liberal arts to supplement, if not replace, the anecdotes of consultants and former executives with empirical research. Sociologists were hired to develop organisation theory; psychologists were hired to discover the principles underlying marketing, organisational behaviour, and human resource management; mathematicians were hired to explore ways of improving logistics and the flow of information; and economists were hired to increase students' understanding of strategy, marketing, and finance.

The above has resulted in a truly cross functional range of business strategic tools being taught. This study has no specific focus in terms of specialised Post-Graduate competence, i.e. finance, marketing, human resources. The business Post-Graduate is taught a broader spectrum of strategic tools, as identified by Latham (2004) above.

The following research objective, “Establish if firms managed by PGB deploy more taught strategic business tools in the development of business strategy than BM and determine if the use of these tools has a direct result on improved business results related to growth.” In order to find this out I will be asking questions around the use of a selection of strategic business tools. Section 2.3.1 details many of the typical core curriculum subjects (Cf. Berkeley Haas, 2015) which form the typical business Post-Graduate teachings, it is from these core subjects that the chosen strategic tools have been selected. The following contemporary literature demonstrates the relevance of the chosen strategic tools utilised.

The chosen list covers the strategic business units, primarily as listed in section 2.3.1. The list covers strategic tools utilised within (but not limited to) the following strategic business units; Finance, Quality, Environment; Strategic Planning, Human Resources, Operations, Sales and Marketing and business management. Contemporary academic thinking is now outlined via a brief précis regarding each chosen strategic business tools. In total fourteen strategic business tools are explored within this research study, these fourteen tools are now detailed (in no specific order);

2.4.2 a Finance; (1) Activity based costing, (2) Liquidity ratio's and (3) cash flow analysis.

As outlined by Levant (2013:52), “As of the 1980s, critics in the USA were denouncing management accounting methods, such as direct costing, for their over-simplification. They considered that by neglecting overheads, the resulting management decisions could have damaging effects in the long term.” It was to remedy this situation that the Activity Based Costing (ABC) method was invented. The ABC method was soon accepted globally as an improved method and the ideas on accounting history proposed in *Relevance Lost* (Johnson and Kaplan, 1987) were globally applied. Today, the ABC method has taken centre stage in the academic literature on cost accounting of the 2000's (Levant, 2013). With ABC costing being so universally taught it has been included as a key financial strategic tool to be investigated within this research study. Sitting alongside ABC costing methods is cash flow

analysis. Although working capital (cash flow) is the concern of all firms, it is the small firms that should address this issue more seriously; given their vulnerability to a fluctuation in the level of working capital, they cannot afford to be starved of cash. The study undertaken by Peel et al., (2000) revealed that small firms tend to have a relatively high proportion of current assets, less liquidity, exhibit volatile cash flows, and a high reliance on short-term debt. For small and growing businesses, an efficient working capital management is a vital component of success and survival; i.e. both profitability and liquidity (Peel and Wilson, 1996). They further assert that smaller firms should adopt formal working capital management routines in order to reduce the probability of business closure, as well as to enhance business performance. Managing cash flow and cash conversion cycle is a critical component of overall financial management for all firms, especially those which are capital constrained and more reliant on short-term sources of finance (Deakins et al, 2001).

Finally, in the finance sector we have liquidity ratio. Liquidity ratio measures the extent to which a firm can quickly liquidate assets and cover short-term liabilities, and therefore is of interest to short-term creditors and management alike (Fantazzini 2009). A firm is required to maintain a balance between liquidity and profitability while conducting its day to day operations. As stated by Padachi (2006: 58) “Liquidity is a precondition to ensure that firms are able to meet its short-term obligations and its continued flow can be guaranteed from a profitable venture.” The importance of cash as an indicator of continuing financial health should not be surprising in view of its crucial role within the business. This requires that business must be run both efficiently and profitably. In the process, an asset-liability mismatch may occur which may increase firm’s profitability in the short run but at a risk of its insolvency. On the other hand, too much focus on liquidity will be at the expense of profitability and it is common to find finance textbooks (Cf. Bhattacharya, 2001) who begin their working capital sections with a discussion of the risk and return trade-offs inherent in alternative working capital policies. Thus, the manager of a business entity is in a dilemma of achieving desired trade-off between liquidity and profitability in order to maximize the value of a firm. The above demonstrate the importance of maintaining a keen eye on liquidity, after all it is pointless making huge profits only to go bankrupt because the business has no cash available to continue to trade.

2.4.2 b The Strategic plan (4).

Research has consistently shown that most small and medium sized enterprises (SMEs) do not engage in strategic planning (Orser, Hogarth-Scott & Riding 2000; Sandberg, Robinson & Pearce 2001; Beaver 2003). This is at odds with much of the strategy literature that dictates that enterprises “Must actively plan for the future” to compete effectively and survive. With so much apparently at stake in respect to the undertaking of strategic planning, strategic planning is included as a measured tool within the strategic tools section.

2.4.2 c Performance Appraisals (5).

Human resources are the most dynamic of all the organisations resources. Where an organisation has a well-trained workforce, it can produce better jobs, staff can be creative and have increased morale (Fening 2008). This will go a long way to enhance the organisations productivity and ultimately performance. However, for small businesses, because of their nature of smallness, they are unable to recruit high quality professionals or employees (Hornsby and Kuratko, 1990). One area that is often overlooked is employee appraisals. Studies have found a positive relationship between HRM and performance in firms (Fletcher, 2008) Employee appraisals can motivate and act as an enabler in encouraging staff to stay with the company and speak highly of the company outside of the company, thus persuading others to join. With staff recruitment and retention being recognised as so critical to business success alongside the link to undertaking staff appraisals to motivate and encourage staff to remain employees within the firm it is of interest to see if management Post-Graduates deploy staff appraisals more than their counterparts. It is noted at this point that staff appraisals play only a small part in respect to motivating and encouraging staff to stay loyal to the firm. Other HR measures could have been utilised alongside or instead of the annual appraisal.

2.1.4 d Vision (6), Mission (7) and Core values (8).

Small and medium-sized enterprises (SMEs) are often characterized by strong entrepreneurial leadership. According to Oakland et al, (2003:1138) “Leaders provide the organisation with clear leadership and direction by developing, mission, vision and core value statements. They exhibit role model behaviour in the sharing and communication of the direction and changes made to it.” As a small business grows and develops there is an increasing need for the introduction of formal structures, systems, procedures, and controls. As part of this process, many entrepreneurs introduce strategic planning systems. Mullane (2002) argued and supported it empirically that mission and vision and core value statements are useful for practical day-to-day operations, taking a contrary view to those who assert they are archaic documents that are typically exhibited as wall hangings.

Organizations use differing vocabularies to communicate strategy, some do so blatantly in an effort to portray uniqueness whilst others according to Sufi and Lyons (2003) confuse the said organisations unknowingly. There is no doubt in the strategic management literature about the distinctiveness of mission and vision statements, and the benefits they provide. This notwithstanding it is not uncommon for organizations to capture their mission and vision statements in a single statement (see Sufi and Lyons, 2003) for that of Hilton hotels.

Mission statements are deemed relevant to the extent that they deliver high levels of motivation and inspiration to employees. Some authors like Bartkus (2004) have studied and have attempted to establish independent outcomes, satisfaction, behaviours, motivation, commitment, performance, and inspiration etc. as impacts that mission and vision statements might have on employees (see also Mullane, 2002) and Forbes and Seena, 2006). The vast majority however have modelled a set of dependent relationships that should ultimately lead to improved performance. Bart et al. (2001) found that mission statements could positively affect employee behaviour which had a direct effect on firm financial performance and this could only happen when internal policies/programs are derived from the statement.

Once again with the literature identifying the importance of these strategic tools alongside the business teaching within strategic management of the development of these important tools this research will ask respondents about their use within the SMEs that take part in this study.

2.1.4 e Sales (9) [sales meetings] and marketing (10) [the marketing plan]

The above noted topics have been identified as another ever present on the Business Post-Graduate curriculum (Cf. Aragón-Sánchez, et al 2003), with Sales and Marketing often found on the course planner. Organizations of today face numerous challenges and training their sales force is definitely high on the agenda of most organizations (Rao, 2010). Research suggests that training may increase the salesperson's knowledge base and skill level, resulting in higher performance (Aragón-Sánchez, et al 2003). Fortunately, given the importance of small business to the economy, there has been a much greater level of activity in relation to sales and marketing training in SMEs over the last 20 years (Blankson and Omar, 2002; Blankson and Stokes, 2002; Brooksbank et al. 2004; Gilmore et al., 2001; Hill, 2001) and this has led to a developing body of knowledge around SMEs and their sales and marketing strategies, planning and activities. Evidence of the fact that organizations are devoted to sales training may be found in the investments companies make in sales training. Of these training expenditures, research has concluded that sales training represents the largest portion of total training expenditures. Selling is a problem-solving mission and training helps salesmen to understand, anticipate and exceed customer needs (Pollitt, 2012).

Anything that the organization can do to facilitate the sales training process through mentoring, role playing, observation, etc., should be better than no training at all and hence the need and justification for sales and marketing training (Attia et al, 2014).

This research has demonstrated that small firms exhibit different sales and marketing behaviours to large firms, which traditionally form the foundation for traditional sales and marketing theory (Freel, 2000). Attempts to adapt and apply traditional sales and marketing models to SMEs, based on the assumption that the basic principles of sales and marketing developed in large businesses are universally applicable, have been unsuccessful.

Two further strategic tools chosen as part of the fourteen tool list include;

2.1.4 f Key Performance Indicators (11) and the Monthly Report (12).

Garengo (2015:25) highlights “In recent years, literature has identified the increasing complexity of small and medium-sized enterprises (SMEs) and highlighted their sensitivity to differences in managerial culture and management systems. Research has shown that KPIs could play an important role in supporting managerial development in these companies.” A KPI is a balanced and dynamic system that is able to support the decision-making process by gathering, elaborating and analysing information (Neely et al.2002; Garengo 2015).

Garengo goes on to say (2015:26) “KPIs should support SMEs to manage uncertainty, to innovate their products and services, and to sustain evolution and change processes. Several important changes that have taken place in recent years have created a favourable context for the implementation of KPIs in manufacturing SMEs.

The importance of a better understanding of organisational performance as a process is that it shapes the way in which we manage and sustain it. This understanding in the field has changed a great deal over time. In the last 30 years, the field of organisational performance has developed significantly, how to use the measures to manage the performance of the organisation via the use of KPI’s is fundamental to this change (Amaratunga and Baldry, 2002; Neely, 2005; Folan and Browne, 2005; Bititci et al., 2011).

The process of designing a KPI forces a company to do strategic planning, and implementing and using it highlights the gaps between the company’s current performance and its objectives. Consequently, the KPI helps the company set future objectives and plan any necessary improvement processes (Tenhunen et al. 2001). The discussion above focuses heavily on the implementation of ISO systems into SMEs. ISO 9001 quality systems and ISO 14001 are now explored further as these make up the final two of the fourteen strategic tools investigated within this piece of research work.

2.1.4 g ISO 9001 (13) & ISO 1400 (14)

The ISO 9001 series of international standards are the globally renown International Quality Standards. The demand for ISO recognition is more popular today than it has ever been, as Feng et al. (2006:23) highlight “The principal motivation to pursue ISO 9001 certification was

found to come from the customer (internal /external). However, ISO 9001 certification can contribute to organisational performance if a climate of change is created. Where ISO 9001 certification is implemented effectively, it may act as a foundation on which to build a quality organisation.” As highlighted, empirical evidence shows that the motivation for undertaking ISO 9001 certification is often external reasons (such as, marketing advantages, customer expectation and competitive pressures), instead of internal reasons (such as improving the quality of products and services (Breka, 1994; Ho, 1994; LRQA, 1993). However, more recent research indicates that manager’s motivation for seeking ISO 9001 certification has shifted significantly from external to internal reasons. For example, market related reasons for certification do not rank high as motivators to gain ISO 9000 certification (Breka, 1994; Feng, 2000; Gotzamani and Tsiotras, 2001).

Companies which seek ISO 9001 certification for external reasons are likely to fail or gain fewer benefits because of their narrow focus. On the other hand, companies that seek certification to improve their quality of products and services tend to gain greater benefits from the ISO certification process. With an ever increasing demand from customers for improved quality, durability and reliability the ISO 9001 international series of standards is ever more popular, it is the number one internationally recognised standard when one talks about quality. It is because of this focus on quality, customer expectation and market demand and popularity that the ISO 9001 series of standards is included within the strategic business tools explored within this research study.

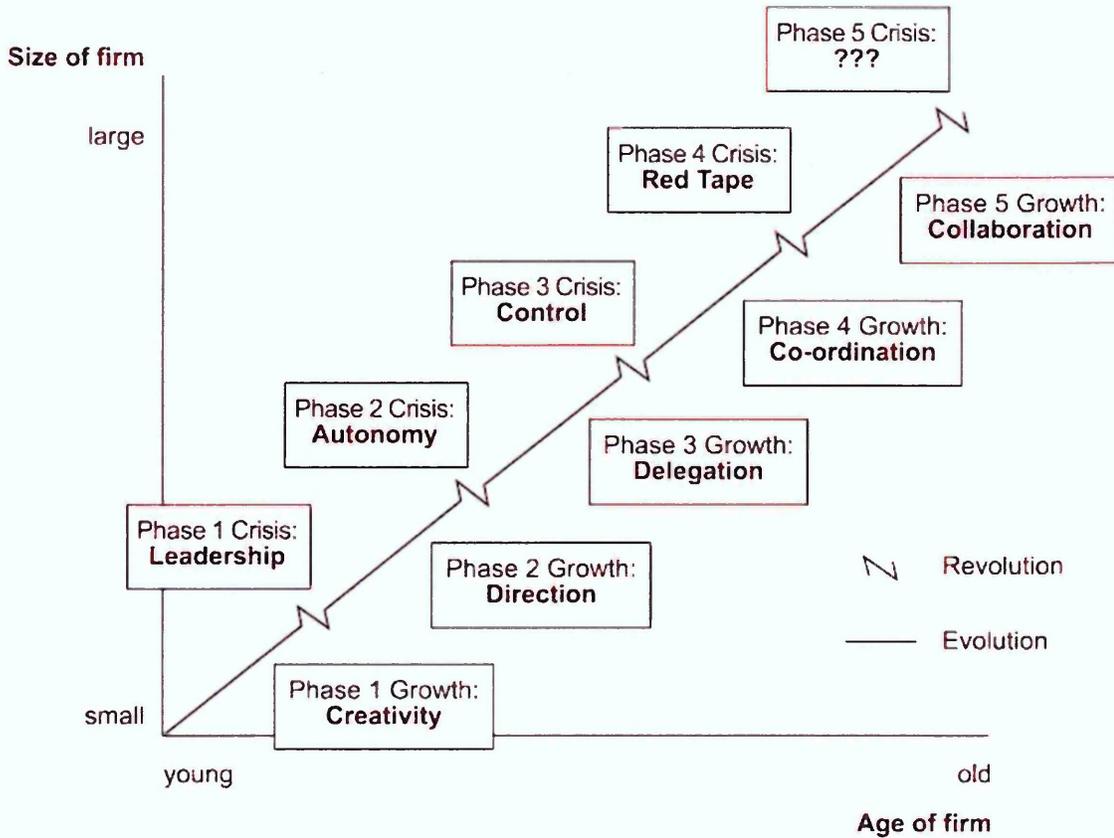
More sustainable practices including ISO 14001 are being introduced by organisations which, moving beyond minimum compliance with laws and regulations, seek strategic advantages achievable through environmental initiatives (Coopley, 2003). Any progress made in this way generally relates to improvements in products and manufacturing processes. Because of the importance of the environment and how businesses are perceived to be in compliance with current legislation, a degree of business is ever looking for that feel good factor in order to stay in touch with their customer base. A selection of the global business community is ever wanting to be seen to be environmentally aware with ISO 14001 being internationally recognised as the accredited standard within this field. ISO 14001 is therefore chosen as a strategic business tool under investigation as part of this study when one looks at the environment.

2.5 SME Growth, education and training

2.5.1 Growth

For the purpose of this research growth is defined as an increase in employee numbers, revenue generation and/or increased net profitability. Greiner (1972) investigated business growth, albeit his work is not underpinned by research. Greiner's work identifies transition throughout business growth periods, Greiner's model as depicted in Figure 2.5.1 identifies two fundamental transitional periods whenever a business grows. Greiner defines these periods as evolutionary and revolutionary. An evolutionary period is one of steady growth with the business, increasing steadily in size over time without any major implications, a revolutionary stage is a period of transition that witnesses' periods of crisis and panic. Crisis and panic periods nominally occur when systems employed can no longer cope with the everyday demands that the business exerts upon them, for example; cash flow reserves no longer support the day to day requirements the business needs, planning systems are inadequate and do not detail the full inventory requirements or the quality procedures are no longer robust enough to support the influx of new staff putting demands on the training systems employed to date. Panic tends to set in during these periods as management can have little experience of managing problems of this nature and fear they are incapable of managing the business through the transition period.

Figure 2.5.1 Greiners model, (Cass reflections 2014)



Our business was founded over 20 years ago. As our business has witnessed growth, I can identify stages of both revolution and evolution, the models depicts fairly clearly what we have witnessed within our business. Anecdotally, I note that during revolutionary periods we doubt capability, there appears to be a nervous anxiety amongst the company directors. The directors of our business talk about emotional roller coasters and not knowing where we are going next. These periods are most common when; we struggle to cope with demand, we have many simultaneous projects underway, when staffing changes are more prevalent, when we have cash flow problems. Internally we refer to these periods as growing pain periods as opposed to Greiner's definition of revolutionary periods. However, I believe, because two of the three Directors at Cooper hold PGB qualifications and had been taught to expect these transitory periods, we are better prepared to manage our way through these periods. I believe that we have the training and appropriate skill sets to help us prepare and implement solutions for the problems we face.

Staff skill set is a popular topic amongst business researchers. Sloan et al. (2001) talk about how the ability of companies to survive and grow in an increasingly competitive global environment is tied to the people in the organisation. Beaver and Jennings (2000:400) affirm, “Successful small firms, especially those pursuing growth and business development, do not just materialize or evolve, regardless of the frequent policy hype and statements of wishful and ill-informed thinking. They have to be planned and managed to overcome the problems associated with enterprise fragility and small scale.” Birley (1996) discuss obstacles such as resource and positional disadvantage, assembling and organizing the credibility merry go round and achieving the required strategic and professional posture necessary to sustain competitive advantage are fundamental considerations that require sensitive and imaginative management thinking and attention.

The core capability of the firm, according to Leonard-Barton (1992:113), is “The knowledge set that distinguishes and provides a competitive advantage.” Choueke and Armstrong (1998:129) state “In order to respond positively to the rapidly changing environment and to perform effectively in spite of uncertainty, firms need to devote much of their time and effort in listening carefully to their customers, while at the same time participating in the development of their organisations so that they are able to effectively respond to the changing business environment.” Choueke and Armstrong (1998:129) go on further to state “It is the view of the authors that traditional forms of management for successful SMEs of the future will not be sufficient to meet these changing demands, and that wider participation in the development of the organisation and management of the business process will be vital ingredients for future organisational effectiveness.”

Beaver and Jennings (2000:398) assert “Growth and development of the small firm brings with it many challenges, especially in terms of the separation of ownership and control. The delegation and professionalization of management activities invariably demand less personalised and consequently more formal approaches to corporate strategy,” can a more formal approach be taught, can we train managers to be prepared for the situations that will be placed in front of them as part of their everyday business life, as highlighted above? I will now explore business training and education.

2.5.2 Training and education

Due to the sparse availability of current literature in relationship to PGB /trained managers and SME business growth, a more general search towards training and business size has been undertaken. Brown et al. (1990) noted that employees in larger firms with at least 100 employees were twice as likely as those in small firms to have participated in a formal training programme. The positive relationship between formal training provision and firm size is also apparent within the United Kingdom; Mangham and Silver (1986), Cambridge Small Business Research Centre (1992), and Deloitte, Elias and Healey (1994), all noted formal/structured training take up rates increased with firm size. Storey and Westhead (2007) noted that a relationship is clear regards firm size and management training take up; from a survey of 1,066 firms in the west midlands region of England Table 2.5.2, taken from a survey conducted in 1995, shows that, for virtually all types of employees, the likelihood of training provision increased with firm size. This survey distinguished between 'external', 'in-house' and 'on the job' training.

The provision of competency based training increased with firm size, i.e. 10 per cent of the smallest firms provided on-the-job training for unskilled employee's, but this rose to 54 per cent for firms with 200 or more employees. It would appear from the evidence above that on face value larger firms undertake a greater amount of competency based training than smaller firms do. The data is quite old now, however with the dearth of literature surrounding SMEs and management training it becomes difficult to find data around the precise subject matter.

Table 2.5.2 Take-up of training by type of employee and firm size in the west midlands of England (Source West Midlands Business Survey, 1995)

Type of employee training	Size of Firm				
	Less than or equal to 9	10-19	20-99	100-199	>200
Un-skilled					
External	1	3	6	5	4
In house	3	9	17	28	35
On the job	10	26	40	46	54
Semis skilled					
External	2	9	16	13	13
In house	3	14	15	35	50
On the job	16	29	38	47	58
Skilled					
External	10	15	29	36	33
In house	8	13	19	37	56
On the job	11	19	29	36	45
Clerical					
External	4	19	24	35	37
In house	9	13	21	39	60
On the job	15	20	34	35	39
Supervisory					
External	3	11	23	42	49
In house	5	10	13	31	61
On the job	3	9	16	25	28
Managerial					
External	14	14	30	50	62
In house	6	11	15	27	55
On the job	9	9	16	20	22

* Note the managerial sector; external training increase for larger businesses over that of the small businesses – 14% small business external training as opposed to 62% larger business.

The provision of management training, management learning and management development for the SME sector is a current widespread activity and has been for many years, hence Choueke and Armstrong's (1998:130) statement "There are a plethora of initiatives through

the medium of the Training and Enterprise Councils (TECs), Business Link, consultants and both further and higher education which are currently available.” In 2012, over 14 year later I still receive regular invitations to, or funding towards business training activity, organised by the same government agencies, although often under a different name. Our business engages in these Government led opportunities, the most recent being a growth initiative that funds consultant led coaching for identified high growth opportunity businesses (Company engagement commenced Oct 2012), but do these training programmes help?

The results of the effect of training in larger firms has been studied extensively with varying outcomes, for instance, Russell et al. (1985) and Terpstra and Rozell (1993) establish connections between selection, training and productivity; Bartell (1994) and Knoke and Kalleberg (1994) conclude that organisations applying formal training programmes achieve an increase in productivity. Finally, Delaney and Huselid (1996) find empirical evidence for the hypothesis according to which human resource practices that affect employees’ skills, motivation and work structure correlate positively with organisational results. On the other hand, we can find supporters of the contingent perspective according to whom the training policy along with its objectives will clearly depend on the strategic orientation followed by the firm (Hussey, 1985; Miles & Snow, 1984; Schuler & Jackson, 1987; Jackson et al., 1989). Overall, I tend to see more favourable opinion in respect to larger firm performance and the investment made in training. Garcia (2007:1704) summarise; “Our research has provided empirical support which allows us to state that the definition of training programmes oriented towards human capital development will have a positive impact on organisational performance.” However overall research findings are still debateable; Kraack (2003: 66) refers to research findings that highlight “A recent Accenture study on the high performance workforce found that 40% or more of respondent companies do not regularly measure the impact of human resources or training initiatives against key business results.” If impact is not measured, then results remain unknown.

The effect of training on small firm performance is rather more ambiguous, findings suggest that training in small firms has little effect on overall firm performance, see (Storey and Westhead:1994, Storey: 2004). In spite of successive Government initiatives in the area of management development and the plethora of courses and training programmes available to the small business sector, there is still a clear reluctance by some SME managers to provide or

engage in management development activities (Small Business Skill Assessment, 2002; Kitching & Blackburn, 2002).

This is cause for concern as the lack of management skills is continually highlighted as one of the contributory factors in both failures to grow or indeed the cessation of small businesses (Jayawarna et al, 2003; Garten, 2005; Emiliana, 2006). Westhead and Storey (2004:16) conclude “There is little careful empirical research which clearly demonstrates the provision of training either by, or for, a small firm clearly leads to better performance of that firm” and Storey (2004:112) summarises by stating “When the views of trainees are sought, public programmes appear to be well received. However, econometric methods linking training participation to small firm performance produce weak findings. This suggests that the relatively low take up of formal management training is an informed decision on the part of the small firm owner/manager. It implies that seeking to increase formal small firm training activity by raising the awareness of owners/managers to the benefits of training is misguided.” However, having said this, the views are mixed; Cosh et al. (2003:94) identified that there is evidence to support the view that a well-designed training process, with clear focus and effective human resources management, would improve performance and increase the likelihood of success in businesses that employ less than 100 staff. Although there is a considerable amount of uncertainty as to the impact on effectiveness and growth of businesses that these inputs contribute (Stanworth & Gray, 1991; Storey, 1994; Westhead & Storey, 1996), these initiatives no doubt form a significant part of the debate around SME growth and management training.

McLarty (1998) looked at the skills requirement of SMEs. His work examined how, if at all, skills presented by graduates can add to growth, competitiveness and profitability. McLarty was more specific in terms of the qualifications held in respect to the research he undertook, focusing on graduates, thus differentiating his work from research work that explored more generic training courses. Although McLarty (1998:625) struggled to utilise the measures he wished because of time restraints the overall conclusion was positive, “The record is strongly in favour of graduates once they were placed in firms.” McLarty also found graduates were adopting increasingly strong positions of influence with their efforts being recognised in almost every firm.

Managers clearly felt able to manage more effectively, with apparent benefits accruing to the 19 SMEs which recruited graduates. What appeared to be happening was happening, the firms'

managers were much more self-assured and confident about decision making because of the graduate back-up (graduates were consulted frequently on a wide range of issues), this situation likens that of reflective practice and learning. Management learning can be enhanced by proactive critical reflectivity, the surfacing and critiquing of tacit or taken for granted assumptions and beliefs. This takes place through the dialectical relationship between reflection and action in which reflection is a precursor to action, but the process of action leads to further thinking and reflective processes (Høyrup, 2004). This process is said to improve management confidence in terms of decision making.

One element of management learning that has not been discussed in the previous passage is that of reflective practice, also referred to as reflexive learning, reflexivity or critical reflection as highlighted by (Raelin, 2001; Høyrup, 2004; Leung and Kember, 2003). Reflexive learning is important because it allows us to critique our taken for granted assumptions, so that we can become receptive to alternative ways of reasoning and behaving (Raelin, 2001). Reflection is an active and purposeful process of exploration and discovery, often leading to unexpected outcomes. It is the bridge between experience and learning, involving both cognition and feelings (Boud et al., 1985). The graduate managers could be acting out their academic learning in a real life environment, with the academic knowledge acting as a catalyst to enhance confidence and thus enabling them to perform at a higher more confident level than their counterparts who do not have the academic experience. Hence, reflection is much more than understanding. It involves the absorption of a concept into personal knowledge structures and then relating the concept to the person's other forms of knowledge and experience (Leung and Kember, 2003).

Graduate managers were much more willing to pursue their objectives in general and primary tasks in particular with a greater degree of confidence as identified by Sturdy et al. (2006). An extensive literature search by D'Cruz, Gillingham, and Melendes (2007) reiterates that, despite different definitions, the concepts of reflection, reflexivity, and critical reflection are sometimes used interchangeably, albeit this is not accepted by all academics. Reflexivity is a process that can be understood in different ways and is characterised in multiple conceptualisations. Different authors have advocated different reflexivities (Cf. Cunliffe, 2009). While (Van Woerkom, 2008:3) states "Critical reflection is considered central to many theories of higher level learning" literature on how critical reflection is experienced or

understood by facilitators is modest (Hanson, 2013). Gray (2007:495) distinguishes between reflection as a personal process that “Mediates between experience, knowledge and action” and critical reflection as “Incorporating a focus on the questioning of assumptions and social rather than individual perspectives, as well as attention to the analysis of power relations.”

Despite the complexity of processes of critical reflection and change comprised in reflexivity, it is important to teach these concepts and processes since they can inform thoughtful, responsible and ethical management practice (Cunliffe, 2004; Cunliffe & Jun, 2005) this view is supported by Hibbert (2012). However, Hibbert (2012) talks about teaching at PGB level as undergraduate students will usually lack the necessary body of rich experience. So, with this in mind it appears that the effective learning of such processes seems to depend on students having substantial experience to explore, critique, and reconsider in order to facilitate critical reflection on their own management lives (Dehler, 2009; Hibbert, 2009; Learmonth, 2007), thus questioning the views that graduates learn in this way.

Yet, while reflection is viewed by some as a key component of learning, it has received insufficient attention in the management or leadership literature (Ollila, 2000). One explanation for this is that managers themselves have always placed a higher premium on action rather than reflection (Daudelin, 1996). Graf et al (2008:483) discuss difference and learning styles “Active learners are characterised as learners who prefer to process information actively by doing something with the learned material, for example discussing, explaining, or testing it. On the other hand, reflective learners prefer to think about the material and work alone.” Since reflective learners like to think and reflect about the material, they are expected to visit and spend more time on reading. Again this could be more closely linked to the PGB level of education which can incur increased amounts of reading over and above levels expected of graduates. Bearing all of this in mind it will be interesting to see if SME PGB demonstrate more reflective learning practice than BM, and if so, how the reflective learning techniques become apparent throughout the research study. Moving back now to graduates in business, McLarty identifies specific areas where graduates are in most demand.

The fact that marketing skills demand was highest was reflected in graduate utilisation, which was assessed some months after induction. Almost all graduates, even those from non-business disciplines, were involved with some aspects of customers, markets or planning. This may reflect either that SMEs were low in marketing skills (a likely situation) or that the stage of national economic growth was demanding greater attention to marketing, or, to put it simply, demand was exceedingly strong in the SMEs. The former is likely to be more accurate since there was evidence that many firms were poor at marketing; consequently, the increase in marketing effort was to be welcomed if these firms were to grow and develop.

McLarty utilised Porter's (1985) value chain model as a comparative tool to measure performance in these key business activities. The value chain concept suggests that competitive advantage stems from a series of discrete activities performed by an organisation. The notion offers a framework for visioning, strategic positioning and process formulation, each of which could possibly be beneficially measured in SMEs. McLarty's model identified two types of value-creating activities; plus, and minus primary and support. Measures between businesses that employed graduates and businesses that did not were undertaken in these key areas, improved scores were witnessed in businesses that employed graduates. My experience of recruiting graduates within our business has mirrored McLarty's findings, the only two graduates that our business recruited have seen their careers progress rewardingly, both are now company directors, one in operations the other in design and development. These two members of staff have demonstrated higher levels of commitment, ability and determination to see our company succeed.

Moving away from the Graduate and onto the PGB, the net effects of the senior management team's education and business results comprises a number of problematic issues; these include the debate concerning whether or not the PGB educational curriculum is current and valid, as discussed in earlier in 2.3.1 and 2.3.2 and the difficulties inherent in evaluating the effectiveness of courses and the deliverables (if any) especially when the PGB is employed within the SME sector. The classroom should now be well versed to business needs; the vastness of the continuum of management philosophy is remarkable. Europe alone now produces some 20,000 MBA graduates per year, a 20-fold increase in the space of 20 years, with over 600 institutions offering such degrees (Economist Intelligence Unit 2002). In 2012 throughout the UK alone there are hundreds of business schools teaching management skills, methods and principles, training students in the broad range of tools and techniques to best

prepare them for their management journey ahead. Despite all of this the debate regards the appropriateness of the PGB programme still goes on.

Smith (2008) recognises the importance of education and learning, as Vice President of Ingersoll Rand University, Smith spends her time providing educational programs for the vast numbers employed within the company's strategic business units (individually likened to SMEs). Smith (2008:43) states "Business acumen is as much a required competency as instructional design" suggesting business management cannot purely be taught and that some degree of natural flair needs to be present. However, in the same article Smith (2008:43) makes reference to "The staff within Ingersoll Rand University hold MBAs or have direct business experience," should we take that this means Smith herself believes someone who holds an MBA qualification is equally as knowledgeable as an experienced business practitioner or vice versa? Choueke and Armstrong (1998:129) state; "As the rate of change and uncertainty in the environment in which UK SMEs operate continues to accelerate, so do the demands on all members of the organisation to respond more rapidly to market demand, whilst at the same time being continually under pressure to improve the quality of the company's product or service." This is particularly appropriate in relationship to the manager or management team. Rhetoric; the art of persuasive speaking, does not deliver results; there is no hiding place for a manager within an SME. At times of economic uncertainty, managers of SMEs find themselves facing new challenges in an ever-competitive business environment.

When looking at SME growth Beaver and Jennings (1995:91) identify that "Successful business development demands shrewd and careful management, innovative approaches to strategic thinking and decision-making, substantial personal risk and a great deal of hard work." The failure rate of new firms, especially in their early years, is still high, with the attendant social and economic cost causing real hardship for the ill-prepared and the unwary. After some 30 years of enterprise research, it is now generally accepted that there is nothing automatic about the birth and development of a successful small firm. It has to be planned and managed from the top against a seemingly endless array of internal and external constraints. Successful small firms, especially those pursuing growth and business development, do not just materialise or evolve, regardless of the frequent policy hype and statements of wishful and ill-informed thinking. They have to be well thought out and managed to overcome the problems associated with enterprise fragility and small scale.

Beaver and Jennings (2005) recognises that management in SMEs bears little or no resemblance to management processes found in larger organisations, which have been the subject of substantial academic research resulting in numerous models, prescriptions and constructs. Jayawarna et al.'s (2003) research is based on the results of a survey of 198 UK SMEs. The results indicate that while firm size influences the utilisation of management development techniques, firm age, business ownership or development responsibility has no such influence. This suggests that the nature of management development has to be tailored to what are seen as the needs of the group in question. The research also highlighted the positive relationship between management skill development and organisational performance. From this, it appears that much of the observed difference between successful and unsuccessful firms lies in their decision to train and develop management skills and techniques, the contribution of which varies according to the size of the business.

There is no readily available published data that details the number of PGB that currently hold senior decision making positions within SMEs, there is also no information available regarding the results they achieve. This research will provide this data set along with many more data sets relating to PGB and SME management. This data should help determine the current numbers of PGB that hold senior positions within the UK's SMEs and whether they are nominally in the majority or minority. Are the PGB able to best utilise the tools and techniques currently taught on the PGB curriculum? Is this team of PGB realising superior business results in terms of growth, when measured directly against their counterparts, who have not undertaken the formal PGB route? Is knowledge attainment via the PGB school route having any net effect on growth? In order to measure growth, we first need to understand what is meant by the term business growth, the reasons behind growth and the measures this thesis utilises; the next section explores this further.

2.5.3 SMEs, growth, the reasons behind it and the measures employed.

Growth in relation to small businesses represents a complex matter and is multi-dimensional in scope and character, it embraces a convergence of owner/manager ambitions, intentions, and competencies; internal organisational factors; region specific resources and infrastructure; and external relationships and network configurations (Storey, 1994; Glancey, 1998; Mitra & Matlay, 2000; Shaw & Conway, 2000). These in turn undoubtedly will impact an individual small business's orientation to growth. Furthermore, Beaver, Lashley, and Stewart (1998:160) emphasise that "Competitive advantage in small businesses is an elusive concept. They are fashioned by the actions and abilities of the principal role players and owe much to their personal perception of satisfactory performance and business direction." Despite this seemingly formidable endeavour, attempts have been made to profile characteristics that generally are accepted as associated with growth in small businesses (Burns & Dewhurst, 1996; Haslam Mackenzie & Ryan, 2000). Storey (1994) also looks at previous research work in this area.

Whenever business growth is discussed it is important that the meaning of growth is clearly explained. SME growth can be measured in various ways. O Regan et al. (1998:3) note "Some researchers and practitioners see growth as referring to employment growth, while others see growth as relating to sales and turnover." For a considerable amount of government policy research, as well as many management and economics sources, growth is measured in terms of increases in SME employment levels. It is this measure which has most relevance to many government policy makers since SME growth has been seen as an important way of reducing unemployment (Birch, 1979; Storey, 1994). Rather than employment growth, however, shareholders and managers of SMEs are usually most interested in key financial performance measures. Similarly, government policy, in addition to interest in employment generation, has also been concerned about the contributions of SMEs to economic growth and competitiveness (Robson & Bennett, 2000). This is often measured by the growth of sales or turnover growth (Bartlett, 1994) and can be seen as a measure of the firm's overall level of activity.

A further measure is profitability, since this focuses on the earnings of firm owners (Kallenberg & Leicht, 1991). Various measures of profitability can be used: net profitability, gross profitability, absolute profitability, profitability per employee, profitability as a percentage of turnover, or percentage change in profitability. This study focuses on net profitability, as it is

a clearly defined measure used widely throughout the UK for determining corporate tax payments. It is for this reason net profitability was chosen as the measure in this thesis. Accordingly, a range of definitions are used to describe the growth of firms (Delmar & Davidson, 1998). This research utilises three measures of growth; employee numbers, financial turnover and net profitability which clearly demonstrate attributes identified to business size and financial wellbeing. It has to be pointed out that there are many not for profit businesses, this research excludes this type of business.

Other measures of firm growth that could be used are market share, return on capital employed, and measures of productivity output. Growth can also take the form of personal development of the management team and employees, technology innovation and creativity, and professional recognition (Orser et al., 1996). Whilst Hakim (1989) makes a distinction between businesses which are actively attempting to grow and those which are not, this is explored within the confines of this research and needs to be taken into account as the study is primarily focused on growth.

So, why is it that some business owners must work 15 hours a day to keep their businesses operating while other owners can go off and, say, run for political office as the business goes happily along on its own? Or how is it that some owners manage without any formal systems or overall strategies while others are driven to devote much attention to such approaches? Birley and Westhead (1990) assessed the role of eighty-eight variables that could affect business growth. The results of their regression analysis performed upon data constructed from a postal survey show that the principal determinants of growth are the nature of customers and suppliers and the role of external competition. For service firms, the financial structure of the company is also significant. Churchill and Lewis (1983:30) who undertook similar research state; "While the style of the owner and financial circumstances of the business certainly are important, less noticeable factors are also at work, including business size, diversity, complexity, management style, and organisational goals." Empirical assessments, have shown that a number of factors can indeed have a direct or indirect influence on SME growth.

Westhead and Birley (1990) find little or no influence from the type of principal owner-manager, the nature of the business itself (such as sector), the perception of the trading environment (sparsity and economic characteristics), nor of the role of local support services. From this they conclude that because of the complexity of employment growth there are few

fully satisfactory explanations of why growth occurs. Their findings, which are echoed in others work (Cf. Freel, 1997), this work also tends to support Porter's general contention, that it is market conditions and the structure of competition that are the main determinants of SME growth.

One of the most widely posited hypotheses is that firm growth is a result of chance, irrespective of management's goals and strategies. Contrary to this (Gray, 2000; Maki & Pukkinen, 2000) conclude that it would appear that there is a common, dominant thread woven through these characteristics, that is, the human factor of the owner/manager. (Gray, 2000; Maki & Pukkinen, 2000) propose that small business growth does not represent a self-evident phenomenon nor is it a matter of chance, but it is a result of clear, positively motivated business intentions and actions on the part of the owner/management team, driven by the belief that the owner manager can produce the desired outcomes. Furthermore, they tend to be personality driven and opportunistic or instinctive in approach (Burke & Jarrat, 2000). Maki and Pukkinen (2000) consider that it is important to differentiate among the intention, ability, and opportunity to grow.

The above discussion serves to show that there is a diverse range of interpretations of the factors that could influence the growth of firms, but the key factors are likely to be the supply chain and the competitive environment alongside the capability and desire of the owner/manager.

Chapter 3 Research Design and Methodology.

3.0 Introduction to the section

The literature highlighted that there are many aspects to explore and comprehend in order to attain a good understanding of SMEs, PGB Management, and the link to business growth. Curran and Blackburn (2001) identify that one of the reasons why small business research has had problems in achieving higher quality (and academic status), as well as greater influence on policy makers, is that it is a difficult area to research, as detailed at the onset. Bearing this in mind, I need to ensure that the research methodology is strong. The most suitable data collection methods need identifying in order to best collate data that can satisfy the needs of a thesis; which stand up to a thorough critique, (Bennet & Gill, 1978; Pfeffer, 1993, 1995; Gill & Johnson, 2006). This methodology section consists of three sub-sections, 3.1, 3.2 and 3.3. Sub-section 3.1 covers the philosophical positioning, 3.2 explores the data; what data is needed, how will the data be collated, who can provide the data and why were the selected data collection methods chosen. 3.3 explores application; the sample audience, sample size, pilot study, interviews, analysis and summarises regarding the methodology employed.

3.1 Methodology; Philosophical Positioning

Every piece of research, every researcher and every context, is, in some way different, a host of factors contributes to interpretation of phenomena as knowledge is constructed, but, as Pring (2000:89) suggests, “Without the explicit formulation of the philosophical background, with implications for verification, explanation, knowledge of reality, researchers may remain innocently unaware of the deeper meaning and commitments of what they say or how they conduct their research”. According to Wilson and Stutchbury (2009:57) “Philosophical ideas often remain largely hidden” and, as such, research rigour can be strengthened by the researcher making transparent the philosophy that underpins the justification of their research methodology.

As Kincheloe and Berry (2004:6) suggest, “Assumptions shape the outcome of the research” and choices made about research methodology “Profoundly affects what I find.” Consideration of the philosophical assumptions and researcher positionality is therefore crucial to

methodological decision making within research. With this in mind I now explore further into the realms of ontology, epistemology and methodology.

3.1.1 Ontological perspective

Ontology is the philosophical study of the nature of reality, the science or theory of being. In terms of education it is therefore the philosophical study of the nature of educational reality and how there may be different perceptions of what is known (Jackson, 2013). According to Marsh and Furlong (2002:18) “It concerns the question of how the world is built: “Is there a ‘real’ world ‘out there’ that is independent of our knowledge of it?” I believe there is, two basic distinctions can be made here: firstly, there is a real world that is independent from our knowledge and upon these foundations life is built or, secondly, there is no real world but the world is socially and discursively constructed, I do not believe this to be the case.

As Sikes (2004:21) explains, “In terms of research design and choice of procedures, if the assumption is that knowledge is real, objective and out there in the world to be captured, researchers can observe, measure and quantify it. I believe this is the case. However, if it is assumed to be experiential, personal and subjective, they will have to ask questions of the people involved.” The researcher’s ontological perspective is also therefore “Closely related to issues of how we decide to collect our research data, they are intimately linked to the basis upon which we think we know something to be true” (Oliver, 2010:34).

Ontological positioning generally relates to the following two positions;

Positivism: The Researcher as a Scientist. Positivism utilises the natural sciences as a model, and is a quest for objective knowledge. Positivism follows a deductive or theory-testing approach, underpinned by an objectivist or realist ontology: facts are facts. This approach is designed to determine how and why things happen utilising objective measurement, correlation, statistical logic and verification. I sit myself in this camp because I believe things are real and can be measured. Typical research methods include: Surveys, Questionnaires and Random Sampling. In the opposite camp we have;

Interpretivism: The Researcher as Detective. Interpretivism arises from a critique of using the natural sciences as a model for social research and can be referred to as the quest for subjective knowledge. Interpretivism typically follows an inductive or theory-building approach and is

underpinned by a subjectivist ontology, people are people. I do not sit in this camp, I believe things are out there and can be found using the positivist approach, albeit with a little variation in terms of additional strength being added, as discussed later. Interpretism is more closely aligned with understanding how and why things happen: elucidating meaning. Typical research methods include: Ethnographic Study; In-depth Interviews and Analytical Approaches

There are both advantages and disadvantages to both Positivism and Interpretivism, as detailed further below (Fig 3.1.1);

Fig 3.1.1 (Adapted Carson et al. 2001:6)

Positivism - Advantages	Interpretivism - Advantages
Economical collection of a large amount of data. I agree with this approach; I will be collating large amounts of data using a questionnaire.	Facilitates understanding of how and why, I am not asking how questions to any great degree, I am not searching causality as a fundamental aim.
Clear theoretical focus for the research from the outset	Enables the researcher to be alive to changes which occur
Greater opportunity for the researcher to retain control of the research process, I will be doing just this.	Good at understanding social processes, I will not be exploring social processes in any depth, this is not for me.
Easily comparable data Allows for complexity and contextual factors	
Positivism - Disadvantages	Interpretivism – Disadvantages
Often does not discover the meanings people attach to social phenomena, I will be asking a few questions in interviews to attempt to overcome this disadvantage.	Data collection can be time consuming
Weak at understanding social processes	Researcher has to live with the uncertainty that clear patterns may not emerge
Inflexible – direction often cannot be changed once data collection has started	Data analysis is challenging and can be complex
	Generally perceived as less credible by ‘non-researchers’

As discussed at the onset of this section sitting alongside the ontological perspective we have epistemology, the epistemological perspective is now explored further.

3.1.2 Epistemological perspective

Epistemology concerns the philosophical study of knowledge and “The grounds upon which we believe something to be true” (Oliver, 2010:35) in other words, “What counts as educational knowledge and how is it obtained” (Sharp, 2009:5). Epistemology thus being the theory of knowledge. Marsh & Furlong (2002:18) state “Ones epistemological position reflects the view of what we can know about the world and how we can know it.” Once again there are two major distinctions to be made here: One view is that it is possible to acquire knowledge about the world unmediated and with no interferences, in principal this is the position I assume. This implies that objectivity is possible, because everyone observes things in the same way, within reason, I believe that the research that I will undertake can be replicated by someone else and that they can find the same outcome. Secondly, observation is never objective but always affected by the social constructions of reality, I do not believe this position is correct. Obviously this relates back to ontology. Positivists would take the former point of view, the view that I take, while interpretivists would employ the latter, as for them there is no real world to observe, as things or actions obtain meaning only by actors and not by sheer existence, I do not believe this is correct, hence my rejection of this school of thought.

The ways in which knowledge is developed is dependent on the methodology, and the rigour of the methodology therefore has a direct link to the strength of the claim to new knowledge. The researcher’s ontological stance links to their epistemological perspective, with the ontological perspective pertaining to the reality of the world and the epistemological perspective pertaining to knowledge of that world. In simple terms, an ontological view of knowledge as reality that exists separately from a learner’s interpretation means, epistemologically, knowledge can be obtained from objective observation, whereas an ontological view of knowledge as subject to interpretation means, epistemologically, that knowledge is arrived at through sense-making and meaning (Cf. Jackson, 2013).

To summarize, historically there have been two completely opposite positions with regard to ontology and epistemology that have absolutely nothing in common. These are reflected in different research traditions, to which I will turn now. Positivism adopts an objective ontology

and an according epistemology. It developed from the empiricist tradition of natural science and sees social science capable of the same possibilities that are there in the natural science. That is, it is possible to observe everything that happens and understand it as such without any mediation, thereby denying any appearance/reality dichotomy. As in natural science, theory is used to generate hypothesis, which can simply be tested by way of direct observation. The ultimate aim is to find general laws and causal statements about social phenomena. This implies that objectivity is possible. Positivists usually use quantitative methods as research tools, as these are objective and the results generalisable and replicable. They look for explanation of behaviour, not for the meaning.

The opposite position is taken by interpretivists, also called relativists. For them it is not possible to make objective statements about the real world because there is no such thing as a real world but it is only socially and discursively constructed. The ontological position here is clearly anti-positivist. Because the world is only socially constructed so are social phenomena, which positivists claim to be able to examine by sheer observation, This is not possible, interpretivists say, because they do not exist independently of our interpretation and every observation concomitantly affects what we observe. Of course interpretivist researchers also “Operate within discourses or traditions. Consequently, knowledge is theoretically or discursively laden.” (Marsh & Furlong 2002:30). Interpretivists usually employ qualitative research methods. Unlike positivists they look to understand social behaviour rather than explain it and focus on its meaning.

Nevertheless, it may be argued that there exists a third position that lies somehow in-between; Post Positivism. “Post-positivist research principles emphasise meaning and the creation of new knowledge, and are able to support committed social movements, that is, movements that aspire to change the world and contribute towards social justice.” (Ryan 2006:12) Post Positivism shares positions from both sides and forms a sort of a golden mean. This position claims that there is a real world ‘out there’ as I believe (hence a positivist perspective, which I believe in) and that it is possible to make causal statements. I sit myself firmly in this camp, I believe in positivist positioning with the addition of further depth and rigor to support the research. However, “Not all social phenomena, and the relationships between them, are directly observable (hence the interpretivist perspective), at times you have to do more digging. There are deep structures that cannot be observed and what can be observed may offer a false picture of those phenomena/structures and their effects.” (Marsh & Furlong 2002:30). So post-

positivism combines elements from both positivism and interpretivism, in doing so the advantages of both camps are combined to give an overall stronger final positioning with a fewer number of disadvantages, this position is where I feel comfortable. The obvious remaining disadvantage being the sheer amount of data collection that needs to be undertaken to cover both quantitative and qualitative methods, I feel the ends justify the means and the added work is worthwhile and value laden.

There are many topics within the social sciences that are deeply embedded with personal meaning. Research on business growth and learning experience are two such areas that are potentially rich in meaning, particularly in the context of individual knowledge. The philosophical aspects of underpinning approaches facilitate the categorisation of research methods into paradigms. The concept of paradigm was proposed initially by Thomas Kuhn in 1962 (Kuhn 1970). The concept is appropriately applied when a high level of professional consensus is recognised to exist within particular communities of scientists, regarding aspects of philosophical beliefs, theories, standards for research and exemplary findings (Kuhn 1970, Poythress, 1988). Philosophical assumptions or theoretical paradigms about the nature of reality are crucial to understanding the overall perspective from which a research study is designed and carried out.

A theoretical paradigm is thus the identification of the underlying basis that is used to construct a scientific investigation; or, “A loose collection of logically held together assumptions, concepts, and propositions that orientates thinking and research” (Bogdan & Biklan, 1982:30). Likewise, a paradigm can be defined as the “Basic belief system or world view that guides the investigation” (Guba & Lincoln, 1994:105). In order to position oneself one must both understand and consider the options available when deciding on the philosophical approach to undertaking a study of this nature.

At one end of the continuum sits logical Positivism (objective reality). The historical evolution and nature of the philosophy of logical positivism are comprehensively documented by Guba & Lincoln (1994), Holton (1993) and Feigl (1969) who highlight how the philosophy was expressed in research method. Truth in positivist inquiry is achieved through the verification and replication of observable findings concerning directly perceivable entities or processes (Wolfer 1993, Poole & Jones 1996). The perspective assumes the existence of an objective reality, i.e. one that is independent of the knower (Holton 1993) which can be accurately

perceived through the human senses. An additional facet of positivist inquiry which has generated much criticism is its adherence to an atheoretical, abridged view of the researchers' involvement in the research process. Positivist philosophers acknowledged and valued rationality and intellectualism but these were tempered with great focus on objectivity, globalism, anti-individualism, un-self-conscious and non-self-reflectiveness in inquiry (Holton 1993). Dualism (or Cartesianism) and the associated capability of separating biases of the mind from the world (and thus the researcher from all stages of the research process) were therefore supported (Guba 1990, Holton 1993). Only if individuals could achieve this total detachment could inquiry be bias free and truly objective. Consequently, researchers were deemed to be neutral observers who indubitably reported their observations free from any cultural, social or experiential based biases.

The traditional logical positivist approach is negated as a practicable method in undertaking this research study because establishing and understanding meaning is deemed an important facet in undertaking this research, further questions need to be answered in order to attain a true depth of understanding, particularly when one looks at learning experience. Interpretation of meaning is subjective in nature. As identified above truth in meaning following the positivist paradigm is achieved through the verification and replication of observable findings, independent of the knower, when one determines meaning through opinion then meaning is not determined independent of the knower. In this research a deeper much richer study is undertaken via the undertaking of semi-structured face to face interviews, to support the data gathering questionnaire. The interviews involved asking questions about why the answers that were given were given and if the answers were a true reflection of the interviewees positioning, was the interviewee telling the truth? The researcher has to make sense of interview answers provided to him, thus introducing his subjectivity and interpretation, hence the movement away from a traditional positivist approach to the post-positive approach, albeit the positivist positioning in the main is accepted, the post-positive positioning offers a little more in terms of depth and understanding

At the other end of the continuum lies constructivism (subject reality) also referred to as interpretivism or transcendental idealism. There are many flavours of constructivism, one prominent theorist known for his constructivist views is Jean Piaget, who focused on how humans make meaning in relation to the interaction between their experiences and their ideas. Most flavours of constructivism revolve around the same underlying principles. The

constructivist, therefore, takes the position that the knower and the known are co-created during the inquiry, I do not believe this is true, I do not sit myself in this camp. The tendency of this research study is to accept that numbers delivered via established financial protocols exist and are independent of the knower (quantitative data), therefore I, the researcher, acknowledge that a reality exists independent of one's views and that this reality is not socially constructed. Bearing this in mind constructivism is omitted as a paradigm choice for the undertaking of this research study. Moving away from the extremes in paradigms and focusing on the middle ground leaves the researcher further options, one of which being Critical realism. Critical realism sits somewhere between positivism and constructivism. Critical realism, which is based around transcendental realism and critical naturalism attempts to establish that in order for scientific investigation to take place, the object of that investigation must have real, manipulable, internal mechanisms that can be actualised to produce particular outcomes. I am not in the critical realism camp and therefore I reject this approach to undertaking this research. A further middle ground paradigm option is post-positivism as discussed. Post-positivism emphasises meanings, not unlike interpretivism, and seeks to explicate social concerns. Further, Ryan (2006) described the characteristics of post-positivism as broad, bringing together theory and practice, allowing acknowledgment and encouragement for the researchers' motivations and commitment to the topic, and recognising that many correct techniques can be applied to collecting and analysing data. Post-positivism does not suggest that positivism is no longer relevant but rather offers that something exists subsequent to positivism that also is worth considering (Ryan, 2006). This is where I sit, I accept the fundamental aspects of positivism but like the idea of there being a little more than the basics, as described above. I sit myself in the post-positivist camp and will adopt this paradigm throughout this study, I see the benefits of this paradigm and that this paradigm works well for the research work I plan to undertake.

3.1.3 The Post-positivist philosophical paradigm in undertaking research.

Post-positivist research has the following characteristics:

- Research is broad rather than specialised, lots of different things qualify as research. This is where I sit in terms of my thinking.
- Theory and practice cannot be kept separate. We cannot afford to ignore theory for the sake of just the facts, once again supporting my views entirely.
- The researcher's motivations for and commitment to research are central and crucial to the enterprise (Schratz and Walker, 1995);
- The idea that research is concerned only with correct techniques for collecting and categorising information is now inadequate (Schratz and Walker, 1995).

The above characteristics typify this research study and my positioning. Although mixing paradigms has often been considered taboo, post-positivism provides another paradigm that can move positivism from a narrow perspective into a more encompassing way to examine real world problems. This allows one to accept and sit in the positivist camp but to add a little more depth.

With the philosophically underpinnings determined I now go on to explain more about the methods employed within this research study.

In respect to this thesis I feel that in the most part aspects are positivist (objective and quite rigidly fixed); numbers employed, revenue generation and profitability are all quite well defined. The UK has quite stringent accountancy protocols and laws to cover these declared measures. In the most part UK companies adhere to government legislation, punishment for non-adherence is quite severe. These numbers are out there to be found and can quite easily be observed, independent of ones' views, therefore technically speaking a positivist single method methodology could be followed. However, the study goes deeper than exploring these numbers alone, this study looks at what lies behind the numbers, the stories of how the numbers are achieved and the strategies employed by the managers tasked with running the businesses under investigation. So, from this perspective the holistic data gathering exercise becomes more involved as opinion and views are sought which involves a small degree of interpretivism. Bearing this in mind a multi-strategy post-positivist methodology needs to be employed to

satisfy my positioning, interviews alongside a survey will need to be utilised, as is now discussed.

3.1.4 The Multi-strategy approach to research

Multi-strategy research is a term employed by Layder (1993) and Bryman (2001) to refer to research that combines quantitative (positivist) and qualitative (interpretivist) research. The term has been coined to distinguish it from multi-method research, which albeit similar is distinctly different from multi-strategy research. The former entails the combined use of two or more methods, but these may or may not entail a combination of quantitative and qualitative research. Mixed methods research may entail the use of two or more methods within quantitative research or within qualitative research. By contrast, multi-strategy research reflects the notion that quantitative and qualitative research are contrasting research strategies, each with its own set of epistemological and ontological presuppositions and criteria. The multi in multi methods thus refers to the mix of both quantitative and qualitative research methods in a single piece of research, thus resulting in a more comprehensive richer source of data collection. This combination reduces known historical disadvantages and creates a combined more comprehensive and thorough research methodology which utilises the known advantages of each ontological and epistemological perspective.

Wells (1993) presents a number of criticisms of the research methods traditionally adopted in research. A number of these criticisms stem from researchers' over-reliance on quantitative methods; a lack of richness in theorising, a lack of theory testing in naturalistic settings, the continued dominance of one-shot investigations, and the use of sophisticated correlational methods to imply causality. Denzin and Lincoln (1998a) highlight that "A quiet methodological revolution has been taking place in the social sciences. A blurring of disciplinary boundaries has occurred. The social sciences and humanities have drawn closer together in a mutual focus on an interpretive, qualitative approach to research and theory." For over three decades, various scholars have discussed and debated the concepts, methods, and standards of quality for studies that utilise a combination of qualitative and quantitative approaches (Layder 1993; Bryman, 2001; Tashakkori & Teddlie, 1998; Creswell, 2003; Tashakkori and Creswell, 2007). The options in the field of methodological paradigms is gathering pace, mixed-methods alongside multi-strategy continues to expand and be more accepted as a further methodological way (Layder, 1993; Bryman, 2001; Teddlie and Tashakkori, 2003 Denzin and Lincoln, 2003; Creswell, 2013).

The multi-strategy approach has clear benefits when compared to traditionally accepted singular methodologies, as Denzin and Lincoln (2003:82) highlight, “The combination of multiple methodological practices, empirical materials, perspectives, and observers in a single study is best understood as a strategy that adds rigor, breadth, complexity, richness, and depth to any inquiry.” Denzin (2012:82) goes on to highlight how he has been won over by these new paradigms, “I come to this discourse from the international community of qualitative inquiry, and I am impressed. There is energy here, new handbooks, journals and annual conferences. This energy can be matched by only a few other interpretive communities and I am not being generous.” Denzin is clearly captivated by the approaches now available to undertaking research. Multi-strategy research is becoming an increasingly popular approach to undertaking research in several areas, it has long been called for as an approach for providing a better understanding of research problems (Cf. Molina-Azorin, 2012; Denzin 2012; Denzin & Lincoln 2003).

Textbooks underscore the desirability of mixing methods given the strengths and weaknesses found in single method designs, (Gill & Johnson with Clark, 2010). Creswell (2013) discusses how he believes this new approach to utilising varying methods is based on the core assumption that when an investigator combines both statistical trends and stories, that combination provides a better understanding of the problem than either of the trends alone.

According to Denzin and Lincoln (1998:76) “The word qualitative implies an emphasis on processes and meanings that are not rigorously examined, or measured (if measured at all), in terms of quantity, amount, intensity, or frequency.” Denzin and Lincoln (2012) go on to discuss how qualitative researchers stress the socially constructed nature of reality, the intimate relationship between the researcher and what is studied, alongside the situational constraints that shape inquiry. Such researchers emphasise the value laden nature of inquiry. They seek answers to questions that stress how social experience is created and given meaning. Sitting established qualitative data gathering methods alongside traditional positivist quantitative methods adds strength and depth to any research study. 

This deeper understanding will help me to attain a better picture of the scene I paint via the research I undertake. For example; Are answers given to survey questions supported in interview? Are answers given in honesty? Was the question correctly understood in the first

place? In contrast, quantitative studies emphasise the measurement and analysis of causal relationships between variables, not processes. Inquiry is purported to be within a value free framework, Creswell (2013). Teddlie and Tashakkori (2011) examine controversies and issues in multi-strategy research, or the third methodological moment. Although there is considerable debate over what constitutes mixed methods/multi-strategy research, these authors suggest that this inquiry focuses on collecting, analysing, and on occasion mixing both quantitative and qualitative empirical materials in a single study or a series of studies. via the implementation of a multi-strategy data collection process the researcher can ensure that they utilise increased expressive power over a single data collection method by guiding the subject too express all answers, values and arguments as opposed to being dependent on the answer given to a set question via the utilisation of a single method approach. When one simply asks a question, without exploring the ‘whys’ behind the given answer, then one can be often left with further questions and not so many answers, (Layder, 1993; Bryman, 2001; Denzin & Lincoln, 2012; Cresswell, 2013, Teddlie and Tashakkori, 2011; Gill & Johnson with Clark, 2010).

There are both pros and cons that can be attributed to both quantitative and qualitative research work, the utilisation of a multi-strategy approach can help the researcher to attain a more balanced view and deeper understanding of the subject matter which is being explored. According to Easterby-Smith et al. (1991), there are many researchers who adopt a pragmatic view of deliberately combining quantitative and qualitative methods. It is not a matter of inflexibly adhering to one methodological approach simply because it is traditionally associated with a chosen paradigm of science, nor is it a question of which approach to reasoning ‘deduction or induction’ is the correct one, for both are correct, and both are required in research endeavours. More modern day teachings are lending towards a change, acceptance and encouragement towards utilising a third way approach is now becoming more popular (Layder, 1993; Bryman, 2001; Denzin, 2012; Tashakkori & Creswell, 2007; Molina-Azorin, 2012).

As discussed above a multi-strategy approach has been utilised to best satisfy the research aims raised in this study. This designed approach ensures both quantitative and qualitative data are analysed effectively to best satisfy the research aims. I will now explain the reasoning behind the design utilised in this thesis.

3.1.5 The design of the multi-strategy approach

It is critically important when utilising a multi-strategy approach that the design of the technique is well constructed and thought out (Layder, 1993; Bryman, 2001; Cresswell, 2013). Undertaking a quantitative method alongside a qualitative method or a quantitative approach followed by a qualitative approach (or vice versa) and reporting the findings is not utilising the mixed method approach, it is purely undertaking a multi-strategy approach and reporting the findings of each methodological approach taken, (Layder, 1993; Bryman, 2001). When a multi-strategy approach is utilised correctly you need to give thought to how the data will be reported in order to provide a strong answer, with each methodological approach complementing the other to give the rigour that a single or two single approaches cannot provide.

There are numerous multi-strategy design options available to the researcher, these may include a quantitative stage followed by a qualitative stage, or a qualitative stage followed by a quantitative stage. Further options include parallel quantitative and qualitative stages with findings converging to provide a rich source of information that is rigorous, repeatable and stands up to a thorough critique, (Cresswell, 2012). In addition to the basic designs one could take the process further and work towards an advanced design, an advanced design would involve bringing more features to the theoretical framework, this could involve an experiment, quasi-experiment, ethnography or case study (Cresswell, 2012). The method I chose to meet the needs of this thesis is the multi-strategy parallel design, fig 3.1.1 (Cresswell adapted, 2012). Although the questionnaires were sent out prior to the interviews taking place, the responses to the questionnaires were not analysed until the interviews were undertaken. This gave me the opportunity to utilise all the collated information in a dual structured manner when undertaking the data analysis stage.

3.1.1 (Adapted Cresswell 2013)- Convergent Designed

Multi-strategy

Quantitative data collection

Survey

Qualitative data collection

Interviews

Quantitative data analysis

Qualitative data analysis

Quantitative Results

Qualitative Findings

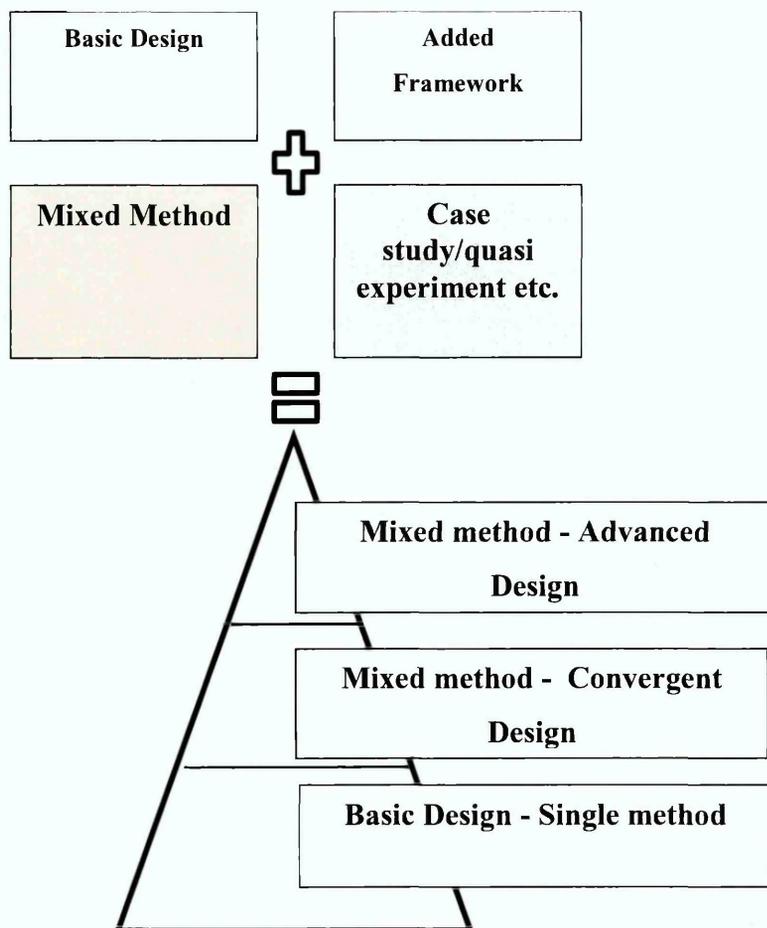
- Quantitative and Qualitative results are compared

Interpretation

P
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Multi-Strategy Design



So, it has now been explained why a multi-strategy approach was chosen alongside the benefits and features of undertaking the selected approach. I now move on to explore the methodological choice.

3.1.6 The methodological choice.

As stated by Jackson (2013:51) “A review of literature pertinent to the key elements of a research project will inform the researcher of existing theory, gaps in existing research, and provide background information to enable the formation of an argument for the need for the research and the shape it will take, helping also with the firming up of research questions.” This argument builds a theoretical framework for the substantive aspect of the research.

Principally this research revolves around numbers, it seeks to explore SME growth, SME growth is typically measured in business by numerical measures; numbers employed, revenue

generation and profitability. In order to have a strong true reflection of UK manufacturing SMEs a fairly large sample size is needed, the most common adaptable method of collecting large amounts of numerical data is to utilise a descriptive survey, and this has an objective ontology and objective epistemology, akin to positivism. However, this said, the research goes much deeper than gathering numbers alone. As identified in the opening few sections of this chapter, respondent views are also sought via more qualitative data collection means; interviews. This then leads to a more post-positivist philosophical standpoint in terms of the undertaking of this thesis, as meaning enters the equation thus introducing subjectivity.

The background reading will also help to inform the strengths and limitations of different methodologies that other researchers have used in the field. This reading will be accompanied by thinking about the researcher's unique context and extend the philosophical preparation for the research in terms of making explicit the researcher's position regarding beliefs and values, and ontological and epistemological perspectives. As Kincheloe and Berry (2004:2) advocate, there is a need for the researcher to be conscious of the "Way the researcher sees and the social location, to focus on the clarification of his or her position in the web of reality".

There are basically two basic methodological traditions of research in social science, namely positivism and post positivism (phenomenology). Positivism is an approach to the creation of knowledge through research which emphasises the model of natural science: the scientist adopts the position of objective researcher, who collects facts about the social world and then builds up an explanation of social life by arranging such facts in a chain of causality (Finch, 1986). In contrast, post-positivism is about a reality which is socially constructed rather than objectively determined. Hence the task of the social scientist should not be to gather facts and measure how often certain patterns occur, but to appreciate the different constructions and meanings that people place upon their experience (Easterby-Smith et al. 1991). Positivism, thus, which is based on the natural science model of dealing with facts, is more closely associated with quantitative method of analysis (objective survey). On the other hand, post-positivism deals with understanding the subjectivity of social phenomena, requires a qualitative approach (interviews). This thesis explores the meaning behind the facts, thus taking a post-positivist standpoint.

3.2 Data collection; What, how, who and why.

As discussed above, before one can contemplate which data collection method(s) to use, one needs to ascertain what data is needed in order to answer the research question/s. The first area I discuss in this section is what data is needed to meet the research aims and objectives, the second area will cover how is this data collated. I then look at who can provide the data, with the section concluding with an explanation of why I made the methodological choice I made. Principally, the methodological questions that needed detailing refer to the; what, how, who, and why's behind the research aims and objectives. In order for me to satisfy this objective I needed to review the thesis aims and objectives. So, with this in mind, I will now look at each research aim and objective individually to identify what data is needed in order to satisfy each individual aim;

Research aims;

1. The principal research aim is to critically examine whether businesses that are managed by Post-Graduates in Business generate greater revenue, more profit and employ more staff than businesses managed by Business Managers.

Quantitative data needs gathering from UK manufacturing SMEs in order to satisfy this aim. The data will need to provide statistical information in respect to numbers employed, revenue generation and profitability.

2. The second aim is to determine how managers learn in businesses run by managers who do not hold a Post-Graduate business qualification.

Qualitative data is needed in order to satisfy the second aim. I will need to be able to identify how managers have picked up the skills that they need in order to manage their businesses successfully.

Research objectives, 1, 2, 3 and 4.

1. Establish if firms managed by PGB deploy more taught strategic business tools in the development of business strategy than BM and determine if the use of these tools has a direct result on improved business results related to growth.
2. Identify whether PGB managers are more prevalent in family or non-family businesses, independent or subsidiary businesses.
3. Identify whether businesses that employ PGB managers have enhanced growth ambitions over BM run businesses.
4. Consider and examine the importance of business experience and the business Post-Graduate qualification to see if this is related to business growth.

The above aims and objectives can be satisfied via the collation of both quantitative and qualitative data. The type of data gathered includes; numbers pertaining to how many strategic business tools are employed, numbers regarding the split between family and non-family businesses, numbers regarding business performance and the split between the differentiating business classifications identified. However, words will answer the research aims and objectives relating to growth ambition, what is understood by the term strategic tool, the importance of experience and the classification of what constitutes a family business.

So, in answer to the what type of data is needed in order to achieve the research aims and objectives the answer is somewhat mixed, both quantitative and qualitative data is needed. Statistical business information is needed in order to demonstrate business performance in terms of numbers employed, revenue generation and profitability, this statistical business information will also provide a measure that can be utilised to differentiate the groups that I am looking to compare. Qualitative data will help me identify more about how; individuals gather their skills, what motivates a manager, and how the managers understand the classifications that I employ within this thesis.

Moving on to the how to best collate the data? I have identified that both quantitative and qualitative data is needed, so therefore a suitable method/s will need to be employed to collate this data. The most suitable method to collate large amounts of quantitative data is by utilising a survey (Breakwell & Hammond, 2006). Surveys can come in many forms; face-to-face

interviews, documented questionnaire, telephone questionnaire (Moser & Kolten, 1971), or e mail. Further data collection methods to consider could include; case study, ethnography, semi structured or structured interviews. On this occasion these methods were not preferred because they are not suited to collating large amounts of quantitative data from many companies. The preferred method was a descriptive survey, the survey was delivered via email, questionnaires will be sent out for completion. Similarly, qualitative data collection methods could be; survey, case study, ethnography, semi structured or structured interviews. Surveys often lack depth, both case study and ethnography means spending large amounts of time within the host business, this was not needed on this occasion. I chose to undertake interviews; interviews enable me to gather the data I need in a suitable manner.

The interviews will also add a depth and richness to the quantitative data, as respondents have the opportunity to tell their stories (Denzin & Lincoln, 1998), this also allows me to better understand the context in which the respondents answered the questionnaire questions. Albeit interviews are open to interpretation, interviews in this thesis will be semi-structured. So, we have the traditional positivist quantitative data collection method of e mailed survey allied to the subjective qualitative method of interviews, resulting in a multi-strategy methods approach, this approach will be utilised to complete this thesis.

I now move on to explain why a survey and interviews were chosen as the preferred individual data collection methods, with this in mind let me now explain more about the individual methods employed and why they were chosen.

3.2.1 Surveys, the chosen method and guiding principles

Surveys are based on the desire to collect information (usually by questionnaire) about a well-defined population. Czaja and Blair (1996:1) state; “It would be difficult to name another social science method that has so quickly and pervasively penetrated our society as the sample survey. In less than two generations, the notion of relying on relatively small probability samples to measure, among other things, public attitudes and behaviours has grown from a little noted curiosity to the dominant practice.” The questionnaire, alternatively referred to as the instrument, typically contains a series of related questions for the respondent to answer. The questions are most often, but not always, in a closed format in which a set of numbered response

alternatives are specified. “The resulting numerical, or quantitative, data are then entered into a data file for statistical analysis” (Czaja & Blair 1996:3). However, like all measures in social science, social survey measurement is not error free, Fowler (1993:4) highlights; “The procedures used to conduct a survey have a major effect on the likelihood that the resulting data will describe accurately what is intended to be described. A sample survey brings together three different methodological areas; sampling, designing questionnaires, and interviewing (or issuing self-administered/postal questionnaires). Each of these methodological areas has many applications outside of sample surveys, but their combination is essential to good survey design.” The second method chosen was interviews, I now explain more about undertaking interviews.

3.2.2 Interviews, the guiding principles and adoption reasoning.

As pointed out by Fontana and Frey, (2005:698). “Interviewing is one of the most common and powerful ways in which we try to understand our fellow humans.” As a single research method, interviewing appears to carry inferences, which pose serious dilemmas to those who would use the approach intelligently (Tomlinson, 1989:155). Increasingly, qualitative researchers are realizing that interviews are not neutral tools of data gathering but rather active interactions between two (or more) people leading to negotiated, contextually-based results.

There appears to exist a rational custom, as Powney and Watts (1987) contend which interprets research interviewing as unproblematic data-gathering, but as Tomlinson (1989:156) suggests; “Anyone who gives serious consideration to (a) the active nature and idiosyncrasy of human understanding and language, let alone (b) the possibilities for social influence in the interview encounter, can hardly avoid a basic dilemma when contemplating the use of interviewing for research purposes.” Tomlinson (1989) goes on and infers that the researcher will go on to the extent that they define and pursue their own topic, they may ignore the interviewee's explanation and reactions, which they precisely wish to obtain. Selected interviews are utilised (alongside the survey) in this thesis to find answers to the research aims and objectives, which are;

1. The principal research aim is to critically examine whether businesses that are managed by Post-Graduates in Business generate greater revenue, more profit and employ more staff than businesses managed by Business Managers.

2. The second aim is to determine how managers learn in businesses run by managers who do not hold a Post-Graduate business qualification.

Objectives

1. Establish if firms managed by PGB deploy more taught strategic business tools in the development of business strategy than BM and determine if the use of these tools has a direct result on improved business results related to growth.

The interviews add much more to this research in terms of depth and richness in respect to the second aim and final three objectives;

2. Identify whether PGB managers are more prevalent in family or non-family businesses, independent or subsidiary businesses.
3. Identify whether businesses that employ PGB managers have enhanced growth ambitions over BM run businesses
4. Consider and examine the importance of business experience and the business Post-Graduate qualification to see if this is related to business growth.

The interviews allow me to attain a greater understanding of answers provided in the questionnaire, an example being; Gordon answers the questionnaire by stating he is looking for unlimited growth, however, the interview with Gordon highlighted this was not actually the case, he is actually looking to slow down and retire. As highlighted directly above, one cannot forget about the indivisible interplay between knower and known (Kockelmans, 1967; Dreyfus 1987), however one can always attain more information from the data source by further exploratory questioning techniques. This was clearly the case in interview between Gordon and myself.

Interviews sit very comfortably alongside the questionnaire to provide a strong rigorous mixed methods design. In order to attain the information needed to answer the research aims and objectives the following questions were asked, these questions formed the basis of the questionnaire. A brief summary of what I need to attain from each question in terms of research objectives follows the question. A full copy of the questionnaire can be found in appendix 1. The questionnaire is designed to attain information regards business performance; number of

employees, revenue generation and profit alongside establishing key information surrounding known SME business variables.

3.2.3 The questionnaire questions

1. What is the nature of your business? (Please state the SIC code)

This question will confirm that the business operates in the manufacturing sector or not. I need to confirm I target manufacturing businesses.

2. How long has your business been in trade/operation?

This question will help me identify how long the surveyed businesses have been in operation, ideally the businesses will have been trading longer than 3 years.

3. What Type of Business is it?

This will help identify whether the businesses are similar by nature i.e. Limited companies, partnerships or sole traders. Ideally I need limited companies, sole traders and partnerships nominally employ less than 10 staff, they would not normally employ a specialist manager, hence the exclusion.

4. What is the ownership structure of your business?

The literature review identified differences in respect to ownership structure, by determining the ownership structure of the businesses surveyed I can analyse results based on ownership structure to separate out this variable.

5. Do you consider the business to be a family business?

The literature review identified performance difference between family and nonfamily businesses. Having the ability to separate out family businesses allows me to analyse the separate groups accordingly.

6. How many people did you employ in the following years? 2009/2010/2011

Having the information for 3 years allows me to take out any peaks and troughs, knowing employment numbers enables me to gauge the size of the business in terms of numbers employed.

7. Do you have a post graduate business qualification e.g. MBA, MSc or MA?

In order to determine whether PGB managed businesses perform better I need to know whether the business has a PGB on the management team.

8. Did you have work experience before you undertook your post graduate qualification?

The literature review highlights that there could be a difference in the PGB manager's performance and the amount of work experience held prior to undertaking the qualification, knowing whether the PGB had prior experience will allow me to analyse data between the two groups, I can then compare my findings to prior literature and isolate this as a variable.

9. How many years' experience did you have prior to completion of your post graduate qualification?

Again the literature highlights experience as a potential performance variable, I can undertake analysis on the length of experience and performance if I know how much experience the individual has, hence the question.

10. How many years have you held your post graduate qualification?

The length of time the qualification has been held could be a further variable linking to experience, if I know the length of time that the qualification has been held then I can analyse on this variable to either rule this variable into the equation or not.

11. How many people form part of the senior decision making team (senior management team or Directors)?

My thinking here is that the management team size could have an effect on business performance, again having the information to hand allows me to analyse performance based on this variable, the variable can then be ruled in or ruled out of the performance equation.

12. How many of this team hold a PGB degree in business e.g. MBA, MSc or MA?

By understanding how many of the management team hold the qualification I can do analysis on performance via team size and team PGB education via team size and performance.

13. Please tick the relevant box if the business has or carries out the following:

- a. Documented strategic plan
- b. Annual appraisals
- c. Mission Statement
- d. Vision Statement
- e. Core Values
- f. Marketing Plan
- g. Sales Meetings
- h. KPI indicators
- i. Monthly reports
- j. Cash flow analysis
- k. Liquidity Ratios
- l. ISO 9001
- m. ISO 14001
- n. Activity Based Costing

This question is designed to attain a better understanding of the strategic 'tools' known to be used in business, the literature review highlighted that business performance can be influenced by strategic actions and the strategic tools employed. QAA benchmarks (2013) and the Harvard PGB curriculum discuss these tools alongside others. I chose tools that are popular within the academic community. Not all the known strategic tools can be detailed, however, the question will allow me to analyse performance based on the business tools detailed above, either individually or collectively. I can also analyse whether PGB are more inclined to use these business tools more than BM.

14. Has your business been subject to any significant changes over the last 3 years that has had a direct result on net growth (Takeover, Acquisition, New market entry)?

If yes, then please state the change.

This question is asked in order to separate out any large influential variables and to see if PGB differ to BM businesses in terms of significant change.

15. Do you want your business to grow? if yes please indicate your growth ambitions

The literature highlights salary differential between business size, with PGB looking to increase their earning potential. This question will enable me to confirm or not, that PGB are more ambitious in terms of growing the businesses they manage over BM.

16. Do you believe a post graduate business education has a positive impact on business performance?

Please state why

This question will give me an understanding of manager's opinion regards attainment of the qualification, this will be explored in much greater detail within the interviews.

**17. Please state your company turnover over in the following periods:
2009/2010/2011**

This information provides me with the data to analyse to compare business size.

18. Please state your profit over the following periods:2009/2010/2011

This information will give me data to analyse to compare business profitability.

**19. Please give your details below if you are willing to be contacted for a follow up interview as outlined in the covering letter and be entered into the draw for the i
Pad 3.**

This question will enable me to have data in order to contact managers for follow up interview.

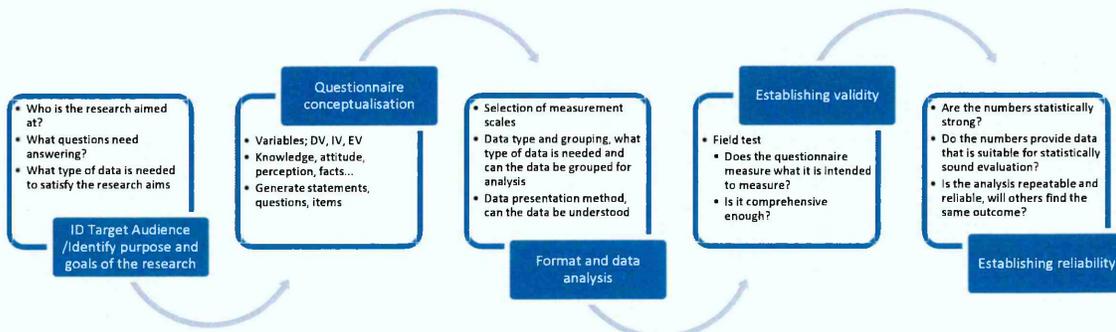
Having identified that I will be undertaking a multi-strategy approach I now need to identify who will participate in order to attain a representative sample audience for this research thesis? The literature has identified that there are 231,000 manufacturing SMEs spread throughout the UK (Trading Economics, 2014), these are the businesses that I need to target as the research is aimed at this sector. I ask for quite detailed business information; therefore, senior executives will be approached within the targeted businesses. The last aspect to cover as identified at the top of this section is the why, the why should now be much clearer. In order to attain both quantitative and qualitative data pertaining to UK SMEs within the restraints of my full time employment, a survey and interviews were chosen, they fit the needs. The thesis centres around UK manufacturing SMEs so UK manufacturing SMEs are targeted, more specifically the senior executives within these businesses.

A survey via questionnaire delivered by e-mail was one chosen method in this research's multi-strategy approach. When one embarks upon the undertaking of a questionnaire many aspects of undertaking the questionnaire need to be considered, not least ensuring that the questionnaire delivers valid and reliable data. The following section explores questionnaire design, data validity and data reliability.

3.2.4 Validity and Reliability

The development of a valid and reliable questionnaire is a must to reduce measurement error. Fowler (2014:8) talks about survey error, one type of error discussed by Fowler is ensuring that the answers respondents give in surveys are a true reflection of their personal experiences and are the relevant answers to the questions asked, anything less leads to survey error. Another type of error discussed by Fowler is sampling error, the sample population questioned in survey needs to be carefully considered. Development of a valid and reliable questionnaire involves several steps that take considerable effort, time and patience. The frustrations of undertaking some of the steps within this piece of research are detailed later, an example being the loss of pilot studies and the re-shaping of the questionnaire to attain results that can be statistically analysed in a reliable consistent manner. The steps involved in the development and testing of the questionnaire utilised within this piece of research are now detailed see, Figure 3.2.4 below.

Figure 3.2.4 Questionnaire Validity and Reliability Process



Each new step depends on the fine-tuning and testing of previous steps that must be completed before the new step is introduced. A brief description of each of the five steps follows;

Step 1 Background; In this initial step, the purpose, objectives, research aims, and development of the research questions are examined (see 1.2, 1.3, 1.4). Determining who the audience are (see 2.1.1, 3.3.1), their background and the process used to select the respondents (sample vs. population) are also part of this step. A thorough understanding of the problem through literature search and readings is a must (chapter 2). Good preparation and understanding of Step 1 provides the foundation for initiating Step 2.

Step 2 Questionnaire Conceptualisation; (As detailed in 3.2) After developing a thorough understanding of the research, the next step is to generate statements/questions for the questionnaire. In this step, content (from literature/theoretical framework) is transformed into statements/questions. In addition, a link among the objectives of the study and their translation into content is established. For example, the researcher must indicate what the questionnaire is measuring, that is, knowledge, attitudes, perceptions, opinions, recalling facts, behaviour change, etc. Major variables (independent, dependent, and extraneous variables) are identified and defined in this step.

Step 3 Format and Data Analysis; In Step 3, the focus is on writing statements/questions, selection of appropriate scales of measurement, questionnaire layout, format, question

ordering, font size and proposed data analysis (see Appendix 1). Scales are devices used to quantify a subject's response on a particular variable. Understanding the relationship between the level of measurement and the appropriateness of data analysis is important. For example, Mann Whitney - The Mann Whitney U-test is omnipresent in statistical practice for the comparison of measures of location for two samples where the assumption of normality is questionable, see p127/8. This test is used to analyse many of the questions in chapter 4, the primary reason for use is that the data is skewed. An example of when the Mann Whitney is used is when I compare the number of employees per company and undertake a split between business Post-Graduates and non-business Post-Graduates. The number of reported employees is not normally distributed, hence the choice of this test. Examples of use of the Mann Whitney test can be seen throughout chapter 4, see page 239/240/241.

Step 4 Establishing Validity; As a result of Steps 1-3, a draft questionnaire is ready for establishing validity. Validity is the amount of systematic or built-in error in measurement (Taylor 2014). Validity can be established using statistical tools and a field test (see 3.3.3). Which type of validity test is used depends on the objectives of the study. The following questions are addressed in Step 4:

1. Is the questionnaire valid? In other words, is the questionnaire measuring what it intended to measure?
2. Does it represent the content?
3. Is it appropriate for the sample/population?
4. Is the questionnaire comprehensive enough to collect all the information needed to address the purpose and goals of the study?
5. Does the instrument look like a questionnaire?

Addressing these questions coupled with carrying out a readability test (see 3.2.3) enhances questionnaire validity. The next step is to conduct a field test using subjects not included in the sample. Make changes, as appropriate, based on both a field test. Now the questionnaire is ready to pilot test (see 3.3.3).

Step 5 Establishing Reliability; In this final step, reliability of the questionnaire using a pilot test is carried out. Reliability refers to random error in measurement. Reliability indicates the accuracy or precision of the measuring instrument (Cf. Taylor 2014). The pilot test seeks to answer the question, does the questionnaire consistently measure whatever it measures? (see 3.3.3). The use of proven established statistical techniques can ensure reliability has been achieved. The type of statistical test utilised depends on the data sets collated. Reliability is established using a pilot test by collecting data from 20-30 subjects not included in the sample. Data collected from pilot test can be analysed using SPSS (Statistical Package for Social Sciences), SPSS was used extensively throughout the results analysis stage, see Chapter 4.

The above process has been undertaken to ensure the questionnaire utilised within this research study is valid and reliable. The experience gleaned from the undertaking of these steps is further detailed in the next two sub-sections.

Due to cost restraints, familiarity and ease of use, speed and access of appropriate contacts at an affordable price, e-mail surveys are becoming ever popular (Radicati, 2012). Over the past two decades, computer technology has made remarkable advances. Historically, the predominant methods of data collection for survey research have been through postal questionnaires and interview by telephone, albeit these methods are not mutually exclusive. E-mail is an additional technique that now allows researchers to collect masses of data quickly and cheaply (Radicati, 2012). The personal computer has become a mainstay in offices, much like the electric typewriter of the 1960's and 1970's. With budgets being cut and communication rates continually on the rise with more individuals having access to the internet, the use of e-mail as a communication mechanism is still gaining in popularity.

“The total number of worldwide email accounts is expected to increase from 3.3 billion accounts in 2012 to over 4.3 billion accounts by year-end 2016. These figures represent an average annual growth rate of 6% over the next four years” (Radicati, 2012:2). What has yet to be determined is the role that e-mail will play in data collection methods employed for research purposes. E-mail has several advantages over the more traditional postal service. It is relatively easy to use, can be transmitted and received almost instantaneously, and, in many instances, it is cost free to the user. When undertaking research or marketing work it is common for the sender of e-mail to purchase appropriate e-mail addresses. I found a large number of businesses trading in this sector by undertaking an internet search.

It is not uncommon for traditional postal methods to take greater than 3 days to reach the respondent, thus e-mail speeds up the data gathering process. The researcher further hypothesized that actual e-mail response rate increased by introducing a follow-up protocol, which that particular study did not include. Although there are many factors associated with successful data collection via a survey, response rate is one of the most important issues that needs to be considered. Torabi (1991) offers several suggestions for increasing response rates. One suggestion is to keep the survey short, other suggestions include writing clear concise directions, minimizing the number of open-ended questions, printing the questionnaire on attractive and institutionally endorsed letterhead, providing a stamped addressed return envelope, and using follow-up reminders to participants. Torabi (1991) also found that a follow-up letter/mail increased his return rate by as much as 25%. Isaac and Michael (1990) reported that according to the research division of the National Education Association (NEA), one follow-up reminder boosted response rate by over 20%, and a second follow-up reminder increased the rate by another 12%. A third follow-up reminder saw no improvement over the second. Follow-up letters/mail is one of the most important ways to increase response rates (cf. Isaac & Michael, 1990; Torabi, 1991; NEA).

Follow up e-mails formed part of this study and proved to be very effective. Other known methods to increase response rates include; awarding prizes and initiating prize draws, using known paid research participants, undertaking research with small focus groups who are often well known to the researcher and placing questionnaires in front of a captive audience waiting for an event to happen, i.e. the film will start once the questionnaire has been completed (Isaac & Michael, 1990; Torabi, 1991; NEA). The last method is ever more prevalent in the growing arena of social networking (Facebook, Twitter, Youtube, etc.).

Bearing all the above in mind I was satisfied that a survey delivered via an e-mailed questionnaire fitted the quantitative needs of this thesis, the concepts and constructs relied upon are well developed, giving access to tested ideas and scales, thereby enhancing the validity and reliability of the research instrument (Gill & Johnson with Clark, 2010). The application of the chosen methods is now expanded upon.

3.3 Application of the chosen methods

3.3.1 Sample Audience

I needed to collate data from UK Manufacturing SMEs. The research is focused around UK manufacturing SMEs. The data cannot be collected locally as the data may then be biased towards a particular region. The companies in which I intend to research need to be SMEs by definition in size and manufacturing industry sector. In order to ensure information is collated from the correct business sector SIC was utilised, using digits 20-39. By specifying these SIC codes when purchasing contact data, I can determine that the respondents are from businesses within the manufacturing sector. So, having now identified the businesses I need to target, I now need to know how many of these businesses I need to collect data from.

3.3.2 Sample sizes and Response Rates.

According to the Department of Innovation, Business and Skills Statistical press release Oct 2010, there were the following number of SMEs within the UK in 2009 (latest available figures) as depicted in table 3.3.2 below.

Table 3.3.2 SME data

Number of enterprises, employment and turnover by number of employees, UK private sector start 2009. (Source: Department of Innovation, Business and Skills Statistical press release Oct 2010)	Number		
	Enterprises	Employment (/1,000)	Turnover ¹ (/£million)
All enterprises	4,834,045	22,819	3,240,329
SMEs (0-249 employees)	4,828,160	13,639	1,588,581
All employees	1,220,070	18,876	3,000,770
With no employees	3,613,975	3,942	239,559
1-9 employees	1,019,605	3,813	444,963
10-49 employees	167,670	3,251	472,272
50-249 employees	26,910	2,633	431,797
250 or more	5,885	9,179	1,651,748

¹ "All Industries" turnover figures exclude Section J (financial intermediation) where turnover is not available on a comparable basis.

² "With no employees" comprises sole proprietorships and partnerships comprising only the self-employed owner-manager(s), and companies comprising only one employee director.

The businesses which my research will focus upon are Manufacturing SMEs with 10-249 employees. Given that the SME arena is quite heterogeneous, attention is given to definitional problems in relation to firm size. Size by employee was fixed at a minimum of ten and maximum of two hundred and fifty. When the business is very small, under ten employees, the management functions are not usually formalised or differentiated from other operational business activities, due to a high workload and the resultant pressure, management development is restricted and more informal Jayawarna et al., (2003). Additionally, it is felt that tiny firms would not be significant recruiters of PGB (although I accept some could have studied part time whilst working). The total number of SMEs available for comparative study totals approximately 194,000. Government figures suggested manufacturing represents 25% of this sector, giving a total number of UK SME manufacturing firms of approximately 48,000 (Department of Innovation, Business and Skills, 2010).

In order to achieve a 95% confidence limit 381 returned completed useable questionnaires need to be returned. This figure ensures I have a 5% margin of error, which is normally taken as being acceptable. The questionnaire was delivered electronically via e-mail. The e-mail addresses were purchased from TLS Data. TLS Data is a leading independent supplier of targeted B2B (Business to business) and consumer direct marketing lists. The information I provided to enable the company to filter the companies that I was targeting is detailed below;

Location:	<i>All UK</i>
Business Sector:	<i>Manufacturing (SIC codes 10-35)</i>
Employees Nationally:	<i>10-249 employees</i>
Job Function:	<i>Senior decision maker (MD or equivalent)</i>
With personal email address (e.g.john.smith@)	<i>- no generic (e.g. info@.....)</i>

The sampling frame included over 8000 UK Manufacturing SMEs. In order to get the 381 responses as defined from the sample plan, I needed a response rate of 4.76%. The paucity of information available in respect to email survey return rates meant that I was unsure as what response rate I was likely to achieve. Bearing in mind the criticality of ensuring the data validity was based on sound foundations I decided to undertake pilot studies. Weaknesses regarding data analysis often jump out at pilot study stage, thus ensuring improvements are made before the costly time consuming bulk of the work is undertaken.

3.3.3 The Pilot study, problems and solutions

I selected a field sample audience consisting of friends who owned SMEs as I knew that these friends would provide good honest feedback to help me identify potential problem areas and explain what was difficult to understand. I drafted a field test questionnaire that I believed would give me the information I needed. I also needed to test the manageability of data analysis, this was done via the utilisation of SPSS. I sent out the questionnaire to two close friends who owned their own SMEs. The following day I looked at how they had answered the questionnaire and read their comments regarding their opinion on ease of use of the questionnaire. The first thing that became apparent was that I struggled to interpret how they had answered a few of the questions; on reflection I realised the questions were not clear enough. I recognised that I had made several other mistakes; the data was difficult to analyse, unreliable and therefore invalid. These mistakes, which did not jump out at me until I had received the completed questionnaires back needed to be rectified. What I had taken as being obvious had not been so obvious to others, and now, even more frustratingly, was now not obvious to me. It was at this point that I realised I needed to change the questionnaire design.

After making the amendments I decided to undertake a pilot study, the decision to increase the pilot study size to 50 SMEs was made. This increase in participants should also give me an idea of how many completed questionnaires I would receive back, the questions people prefer not to answer and how difficult information analysis would be now the changes had been made. I improved the questionnaire to strengthen the weaknesses which the field study had identified. I then posted the questionnaire online via kwiksurveys.com and e-mailed it out to 50 of my contacts. When I logged in to look at the RR I found that kwiksurveys.com had been hacked and the website was no longer available for use. I had lost the questionnaire and the completed data from the initial pilot. The website had posted a message stating that they needed to make site repairs, that these repairs were underway and that the website hoped to be functional again soon. I felt that I had no choice but to wait for this repair work to be undertaken. The website came back on line approximately two weeks later, some of the data was available, but not all. I decided to find an alternate hosting website as I felt I could not take the risk of losing all the data if the same thing was to happen again on the main survey. I turned my attention to SurveyMonkey, and I had to pay to register (Kwiksurveys.com was free) I was of the opinion that it was wiser to ensure the research data would be safe. I could not afford to lose the

responses again. I re-drafted the questionnaire and sent it out to 50 contacts prior to my summer holiday in the last week of July 2012.

I waited for responses over the course of my two-week holiday and the first week back at work, I did not receive a single response. Albeit research into response rates is sparse, indications suggested I should have received a response rate of around 5% (Cook et al., 2000; Kaplowitz et al, 2004). The poor response rate was not a complete surprise. I thought that I had chosen a bad time to send out the questionnaire, the summer holiday period is at its peak in mid-August. I therefore decided to send a further 250 questionnaires via e-mail to targeted recipients from my contact database, this was undertaken during the third week of August 2012. After a further two weeks of waiting, I had only received one completed questionnaire back. I started to question the e-mail list which I had purchased, more specifically the company I had purchased the list from, albeit I had done research on the company I purchased from and I had found the company to be reputable. I then started to think about how I had linked the survey to my employment e-mail address. Our business sends out e-mailed marketing campaigns, and, because of this, it is a recognised spam sending company, the business has recently received six complaints for sending spam mail. My marketing manager had informed me that the number of complaints that is considered acceptable is 1/1000 our business had received 2/1000, so we were being monitored by our host. I gave the problem some thought and decided to send out further e-mailed questionnaires via my student e-mail address. I believed this would give the target audience improved confidence that the research was genuine and not someone undertaking covert business intelligence.

In September 2012, I e-mailed the questionnaire to the same 250 respondents but this time I sent it via my student e-mail address. I received 14 responses. This new response rate of 5.6% was a significant improvement and very encouraging, the response rate fell in line with what my research suggested I should expect to receive. I had received 9 completed questionnaires and 5 part completed questionnaires. I had deliberately given the respondents the choice to skip questions. I designed the survey to provide information around growth and potential contributors towards growth. This involved asking questions around business finance, and as business people are often reticent towards providing financial information, I was not surprised to see that respondents had left financial questions un-answered. I was now happy with the response rate and the quality of the returned questionnaires; the problems that the first pilot had identified were fixed.

Now I had good results from the second pilot study I was confident I had a well-designed questionnaire which worked. With this renewed confidence, I set about the task in hand and I sent out the questionnaire to 8752 potential UK SME manufacturing businesses during October 2012. By the 20th October 2012 I had received 300 responses. The initial mail had resulted in 219 responses with a reminder sent on the 19th October 2012 resulting in a further 81 responses being received the following day. As identified earlier Torabi (1991) found that a follow-up letter/mail increased his return rate by as much as 25%. I planned to close the survey at the end of October 2012. A further reminder followed on the 29th October 2012 resulted in a further increase in response rate. I was now confident I could reach my completed questionnaire target response rate. The concern at this point was the completed questionnaire response percentage. On the 28th October 2012, the completed questionnaire response rate was 54.4%. The anticipated problem with getting senior business management to complete a section of the questionnaire targeting financial information had always been a primary concern.

The low completed questionnaire response rate was because respondents were not completing the financial section of the questionnaire but the problem compounds in that once the respondents get to the financial section and choose not to answer financial questions they then failed to complete any other questions in the questionnaire (detailed further in analysis section 4.2). This was a concern. However, I identified that immediately addressing the issue was not going to be a problem and I resolved the issue without changing any questionnaire specifics as I made the decision on October 28th 2012 to amend the questionnaire layout. I moved financials to the last section as I thought that respondents were happy answering non-financial questions, so by moving non-financials to an earlier section the chances of getting other sections complete would improve. The scope of the questionnaire and the specific questions remained unchanged. On the 28th October 2012, I had received 338 returned questionnaires. My target was 381. I needed a further 43 questionnaires returned to ensure the survey was statistically strong and within the 95% confidence limit I had set. I sent a final reminder out on Monday the 29th October. I targeted closing the survey at the end of October. The survey closed on the 31st October 2012 with 397 (5.3%) usable questionnaires returned, my target achieved. The majority of respondents had responded positively by supplying their contact details for interview and to be entered into the prize draw. This was great news as the interviews are a generic aspect of the methodological choice. I now move on to explain the detail surrounding the second of the mixed method choices made, that being the interviews.

3.3.4 Interviews

397 e-mails were sent out to questionnaire respondents asking for their availability to undertake face to face interviews, this being all the respondents all who had left their contact details. In total six people replied positively and made themselves available for interview, 3 respondents held a PGB qualification, I interviewed all six. The six interviews were undertaken throughout the spring of 2014. The interviews were undertaken at the interviewee's place of work; the locations visited were spread throughout the UK, to include Oxford, Norwich, Wakefield and Derby. The interviews were face to face, semi structured interviews with the lead-in being an overview of the research and a brief overview of my management journey. My objective was to ascertain a deeper understanding of respondent's thoughts on; SME business management, their management journey, SME business characteristics (to include strategic business tools as taught on the PGB curriculum (see 2.3.1)), the PGB manager(s) employed, and to help identify how BM learn their business skills. As previously mentioned these topics are covered because the literature highlights these topics as having an influence on business results. The interviewees were given an overview of the thinking behind the research questions and my personal career journey. The interviewees were then asked to give me their opinion on the subject matters and to tell me about their career journeys, highlighting anything they thought worthy of discussion around the specific research ideas.

Questions were tailored for each interviewee, for example; interviewees who held the PGB qualification were asked how they thought holding the qualification had helped them in their careers, I also asked about the extent to which (if any) the teaching of strategic tools (see 2.3.1 for detail) had helped them manage their business. Replies included the following from Peter who states "*I think there are two or three things, one is in taking on education you obviously pick up tools that will help your business, you have to do that.*" Peter spoke at length about how the PGB qualification had helped him better understand the tools and techniques available to him, to help him manage his business and how he had used the tools he had been taught in his everyday business operations.

BMs were asked how they had attained their knowledge and understanding of strategic business tools (as detailed in 2.3.1). Although detailed answers differed between the three BMs the themes that came out of the interviews with these managers were the same, the managers had picked up knowledge from their peers, informal (non-qualification attainment) training and business coaches/mentors. Martin mentions how he had joined business forums and had picked

up skills from his peers whilst working in networking events, Michael mentioned how he had attended ‘Masters module’ training sessions whilst Gordon often cited learning from his peers when he worked in larger organisations (see 4.12 for further detail).

Throughout the interviews I often found myself intervening when pertinent points were raised around specific subject matters, an example of this could be when a BM mentioned any of the strategic tools explored I would ask the specific question of how they had come to learn about that specific aspect of their business. Gordon makes a point of pointing this out to me when he stated “*We’d had a proper learning curve. We knew about marketing, we knew about product development, we knew about budgeting and forecasting. I picked that up and quickly, I thought I’ve got to be savvy about this. I quickly learnt, kept my mouth shut, and learnt as much as I could.*” Gordon did not hold a business Post-Graduate qualification.

In the main the interviews took in the region of 2 to 3 hours to undertake, the interviewees were very warm and welcoming. All of the interviewees said that they had enjoyed sharing their stories and were interested in receiving a copy of my thesis once complete.

An overview of the people who made themselves available for interview follows, along with the numbers employed by their businesses, how long their businesses have been trading and whether PGB are employed within the senior decision making team. A more detailed resume of each participant is given below.

Table 3.3.4 Participants business characteristics

Name and job title	PGB yes/no	Number of staff	Time in business
Peter. MD	Yes	100	10 years +
Abbas. MD	Yes	140	10 years +
Martin. MD	No	42	10 years +
Gordon. MD	No	31	10 years +
Thomas. MD	Yes	220	10 years +
Michael. MD	No	14	10 years +

The respondents;

Peter.

Peter is a male in his mid-fifties, Peter undertook a management buy-out from his employer along with a fellow Director many years ago. Peter undertook his PGB education to enhance his confidence. Peter has built a successful group of companies and identifies the importance of spreading risk. Peter now sees his primary role as ‘nudging the tiller’ and keeping everything in line. Peter was very pleasant and thoroughly enjoyed sharing his business stories. Peter commented about the similarities between his career and those of mine.

Abbas.

Abbas is a male in his mid-sixties, Abbas has held a Ph.D. from a young age, and decided to move out of academia and move into business to ‘enter the real world’ [Abbas’s words]. Abbas did his PGB management qualification more recently, after his Ph.D. Abbas undertook the PGB qualification to improve his business language skills in order to develop his linguistic relationship with the younger generation of staff who were joining the company, the younger managers had undertaken a PGB qualification and spoke the management language. Abbas previously owned the business, he set it up from nothing, however he recently sold out to a large multi-national, he now manages the business for the new owners. The business is growing healthily and continues to prosper under his management.

Martin.

Martin is an ex-coal mining male in his mid-forties who took over day-to-day management of his father’s business. Martin holds no formal qualification but hopes to do something soon. Martin believes in networking and works closely with a mentor, he talks about ‘seeing the light’ and ‘understanding business better’ since working with his mentor. The business is doing well despite almost folding recently, a large contract that they had won went terribly wrong.

Gordon.

Gordon is a male in his early 60’s and runs the business with his business partner. Gordon and his partner founded the business almost 40 years ago. Gordon had sold his business on a previous occasion only to buy the business back after ‘failed management’ under parent

company ownership. Gordon expresses interest in growth, but the reality is that he is now comfortable and enjoys the rewards the business brings him. The last six years have been hard but the business is now turning a corner and orders are picking back up.

Thomas.

Thomas is a male in his mid-sixties, he left Oxford with a Ph.D. and only employs graduates, MSc's or Ph.D.'s. Thomas's business is high tech and based in Oxford. The business follows few of the normal practices one would expect to see in a UK business of its size. The business is extremely successful with gangs of geeks [Thomas's expression] hanging around the premises, apparently holding meetings, sat with their feet up and appearing very relaxed. Spending time with Thomas was very enjoyable, his business is interesting in many ways.

Michael,

Michael left school and went into the army via Sandhurst. Michael is privately educated and attended boarding school. Although Michael does not have a formal PGB qualification he sits on numerous committee's at his local university. Michael believes in education but recognises the negatives in respect to training staff who subsequently leave. He identifies this through experience, i.e. historical trainee's leaving his business shortly after completing their qualifications. Michael is a successful businessman and has several business interests, his current core business has been much larger than it currently is, however Michael is now happy that his business is trading at the current size. Michael is looking at succession planning to enable him to retire.

3.3.5 Data analysis

Data analysis is the process by which the researcher begins to make sense of the data and to provide interpretation by identifying themes and emerging theory. In order to attain meaning data needs to be analysed. Data analysis is an on-going process and starts with the first question/interview (Bogdan and Taylor, 1975, Marshall and Rossman, 1999, Rubin and Rubinet, 1995). "Facts (data) does not speak for themselves, we have to make them speak through explanations or interpretations we generate from the data, to achieve this the data has to be analysed" Curran and Blackburn (2001:94). Curran and Blackburn go on to add that it should be the aim of all researchers to analyse their data so as to add at least something novel to our present understanding. The questionnaire is a widely used method when undertaking research relating to business performance (Rahm & Do 2000). Knowing how to analyse data

gathered via the use of a questionnaire is therefore essential for researchers studying this topic, as well as any other topics where questionnaires are utilised (Curran and Blackburn, 2001). Perhaps the first question any researcher should ask when carrying out a study is: how will I analyse my data? or, more plainly, which test shall I use to analyse my data once collated? Data collated via the questionnaire utilised in this thesis will be analysed using well-established statistical techniques.

There are a number of different statistical techniques that are used to analyse data collated when undertaking research. A selection of these techniques will be used to analyse the data gathered in this thesis. Many factors will help determine which technique is used to analyse each question, these factors are detailed along with the techniques utilised within the boundaries of this thesis.

The following terminology is commonplace within the results section; Histograms, correlation, parametric, non-parametric, regression, normal distribution curve, skew/skewness, null hypothesis, for convenience and understanding I have detailed a brief nomenclature in appendix 2.

The data was analysed using the most suitable statistical tests. Test suitability depends on the form of data collated. I have detailed the tests used below, along with an explanation of the circumstance in which the test is best suited for use.

Mann Whitney - The Mann Whitney U-test is omnipresent in statistical practice for the comparison of measures of location for two samples where the assumption of normality is questionable. This test is used to analyse many of the questions in chapter 4, the primary reason for use is that the data is skewed. An example of when the Mann Whitney is used is when I compare the number of employees per company and undertake a split between PGB and non-PGB. The number of reported employees is not normally distributed, hence the choice of this test.

Students t-test – A t-test is any statistical hypothesis test in which the test statistic follows a Student's t distribution if the null hypothesis is supported. It can be used to determine if two sets of data are significantly different from each other, and is most commonly applied when the test statistic would follow a normal distribution if the value of a scaling term in the test statistic were known. This test is used commonly throughout chapter 4, it is used to compare data sets when the distributions are normal. This test was utilised when I compared the number of senior management on the management team, with the split between BM and PGB being compared. The distribution of team size was normal, hence the suitability of this test.

Kruskal Wallis – The Kruskal Wallis one-way analysis of variance by ranks (named after William Kruskal and Allen Wallis) is a non-parametric method for testing whether samples originate from the same distribution. It is used for comparing two or more samples that are independent, and that may have different sample sizes, and extends the Mann Whitney U test to more than two groups. When rejecting the null hypothesis of the Kruskal Wallis test, then at least one sample stochastically dominates at least one other sample. The test does not identify where this stochastic dominance occurs or for how many pairs of groups stochastic dominance obtains. The Kruskal Wallis test is utilised throughout chapter 4, it is used when I am comparing more than two data sets and when the data is skewed. An example of when this test was utilised is when I looked at the size of the management team and compared profit, number of employee's and revenue turnover. The test was suitable because I was analysing more than two variables.

Pearson's Chi Squared – Pearson's chi-squared test (χ^2) is a statistical test applied to sets of categorical data to evaluate how likely it is that any observed difference between the sets arose by chance. It is suitable for unpaired data from large samples. This test is also used commonly throughout chapter 4, it is used to compare categorical groups. An example of when I used this test was when I was comparing categorical factors, e.g. is the company a limited company, sole proprietorship or partnership?

Pearson's correlation - In statistics, the Pearson product-moment correlation coefficient is a measure of the linear correlation (dependence) between two variables X and Y, giving a value between +1 and -1 inclusive, where 1 is total positive correlation, 0 is no correlation, and -1 is total negative correlation. It is widely used in the sciences as a measure of the degree of linear dependence between two variables. It was developed by Karl Pearson. Pearson's correlation is utilised throughout the thesis, it is primarily used when establishing the links between the number of employees employed, revenue turnover and profitability.

In addition, qualitative data which has been gathered via the interviews is analysed using thematic analysis i.e. Nvivo. The data is analysed for themes, patterns and trends. Both data sets will then converge for a further critical examination, resulting in a thorough rigorous and comprehensive inquiry. This concludes the methodology section, the key characteristics are summarised below.

3.3.6 A summary of the Methodology employed.

Appropriate methods have been identified and selected in order to best realise a strong thesis, I have explained how the thesis utilises a convergent multi-strategy method design. The reasons for this choice have been elaborated, alternate methodological options were discussed but rejected, reasons for rejection were explained. Data is compiled via the undertaking of an e-mailed questionnaire and face-to-face semi-structured interviews. Questionnaires and semi-structured interviews have been discussed, the sample audience has been identified with sampling limits set. The Quantitative data collated from the questionnaire is analysed using proven statistical methods, the methods used have been set out and explained. The statistical finding is enriched via weaving in a golden thread of qualitative data, this data was gathered via the undertaking of semi-structured face-to-face interviews. The next stage of the thesis process is for me to analyse the results and look for any emergent themes, demonstrate how the research contributes to academic and professional knowledge. The thesis concludes with a summary framework and recommendations for further action.

Chapter 4 Results of the Study and emerging themes

This chapter focuses on data analysis. The chapter starts by providing a summary of the interviewee characteristics, the chapter then develops and moves on to analyse the questionnaire responses.

4.1 Characteristics identified by interviewees.

Throughout the interviews a multitude of characteristics were identified, some were personal to the individual and some were specific to their respective businesses, table 4.1 below summarises a selection of the key business and personal characteristics identified. The characteristics are recognised in order to build a picture of the person and the business under investigation, do certain people with certain personas manage in certain ways and do their respective businesses mirror their traits. Undertaking interviews allows the researcher the opportunity to question and explore this type of idea.

Table 4.1 Key personal and business characteristics identified by interviewee's.

Respondent	Characteristics identified personal to individual	Characteristics identified associated with the company
Peter. MD. 100 Employees, 10 years + in business holds MBA	<ul style="list-style-type: none"> • Not as clever as others with qualifications prior to MBA. • The need for more money. • Ambitious • Incomplete education prior to MBA • Literature/reading • Confidence/self esteem 	<ul style="list-style-type: none"> • New product development • Innovation • Networking with academics • Literature/reading • Strategy • Margins and strategy • Improvement teams • Government quangos • Training • Professionalism • Mentoring • Ambitious staff once trained. – Catalyst • Vision • Multi-faceted business • Spreading risk • Qualifications • Growth link to education • Importance of good people • Delegation

Respondent	Characteristics identified personal to individual	Characteristics identified associated with the company
<p>Abbas, 140 employees. MBA and Ph.D. 10 year + trading.</p>	<ul style="list-style-type: none"> • Increased salary post MBA • Confidence builder • Refreshing views • Communication skills between age groups enhanced • Business language understanding • Belief • Educational ‘club’ benefits • Common business language 	<ul style="list-style-type: none"> • Improved confidence and ambition to drive the company • Trained staff leaving (negative) • Protocols and formalising systems • Collective growing • Belief • Growth • New product/market development • Improved business analytics
<p>Gordon, 30 employees. No MBA, 10 years + in business</p>	<ul style="list-style-type: none"> • Felt like an outsider regards not having a degree • Learning from colleagues • Reading • Lack of confidence to pass on the baton, poor staff • General negativity towards ‘clever businessmen’ 	<ul style="list-style-type: none"> • Strategic plan • New product development • Product improvements • Sales and marketing (-) weak, no cash • Poor staff (-) no education • People with degrees failed in this business (-) do not think outside the box

Respondent	Characteristics identified personal to individual	Characteristics identified associated with the company
<p>Martin, No MBA, 10 years + in business. 42 employees.</p>	<ul style="list-style-type: none"> • Mentoring • Non-formal training courses, day release • Resilience • Tool kit (business) • Having a plan for yourself 	<ul style="list-style-type: none"> • Quangos • Formal business plans, vision/mission/direction • New product development • Collaboration with universities; KTP • Strategy development • Teamwork • Strategic Business Units (SBUs) • Entrepreneur
<p>Michael, 14 staff in business 10 year +. No MBA but a degree and Sandhurst management trained, Army tank commander. Privately educated.</p>	<ul style="list-style-type: none"> • MSc modules informal though • Reading/knowledge attainment • Entrepreneur (cannot teach this) 	<ul style="list-style-type: none"> • Planning • Training, not always via universities • Cost of training staff and them then leaving (-) • Digression • Links to Universities • Links to academia • Customer satisfaction • Consultancy

Respondent	Characteristics identified personal to individual	Characteristics identified associated with the company
Tom, 300 staff. PhD, MBA. Designs and manufactures cameras and recognition systems	<ul style="list-style-type: none"> • Enjoys his job. • Collegiate environment, deliberate. • Lifelong learning journey. • Relaxed about business. Team of 'colleagues.' Flat structure, see autocrats as cancerous. • Informal but not when examined further • Recognise the importance of team 	<ul style="list-style-type: none"> • Graduates care. • Greater contribution/commitment from educated staff. • Technology driven, 'geeks' enjoy the field of business. • Employees professionals in all areas of the business. • Good education is critical to success.

4.1.1 Characteristics discussion

The six participants who volunteered for interview identified a number of characteristics associated with them as individuals and to the company in general as being both problematic and helpful. These characteristics include; (from a helpful perspective) the PGB qualification acts as a confidence builder, improves communication skills, enhances the understanding of a 'business language' and encourages a lifelong learning journey, and (from a problematic perspective) negativity towards clever businessmen, feels like an outsider, lacking in confidence. The helpful perspective views came primarily from the PGB qualification holders, with the problematic views more often coming from the BM, thus a general difference of opinion regarding holding the PGB was evident.

The interviewees all had over ten years' management experience in business, three interviewees held a PGB and three did not. Two interviewee held PhD's in addition to their business PGB, the PhD's were not in business. The interviewees who had not undertaken the PGB identified how they learn via methods which lean towards more informal teaching,

coaching, and mentoring. In addition, their discussions focus on the importance of experience over and above the holding of formal qualifications. They identify issues directly relating to the attainment of formal PGB and staff retention, and the costs attributed to this as being problematic to the company (see 2.4.2). The group of BM identify that times they feel as though they fall outside the boundaries of a fictitious educational club which consists of managers who hold formal qualifications, who feel more comfortable talking about their university education.

The managers who hold the qualifications talk about the enhanced confidence and self-esteem (see 2.3.3) that the qualification gives to them, they talk about increased networking opportunities and how the general skill level of staff increases when their workforce are formally educated.

The increased networking opportunities discussed by the PGB related to the meeting of people in similar positions whilst at University, albeit when the group of BM discussed networking opportunities offered to them, it was mentioned that they felt outside of the University cliché and that they lacked confidence when working with this group of people. It was discussed in interview that increased networking brought along new business opportunities, thus adding overall benefits to potential business growth. The PGB highlighted that they believe that the mix of experience and formal qualifications improves business capability and that the educational aspect brings with it a higher degree of commitment from the staff to see things through. The BM place more emphasis on experience than qualifications and spoke of knowing staff who “could not hack it” when it came to hands on business management.

4.2 Response Rates and findings

Although there are many factors associated with successful data collection via a survey, response rate is one of the aspects that needs to be carefully considered. Historical research comparing response rates of mail and Internet surveys generally find lower response rates from electronically hosted surveys (Cook, Heath, and Thompson 2000; Hoonakker and Carayon 2009; Sue and Ritter 2007). However, Saunders (2012) study illustrates this may no longer be the case and identifies that modern web based e mailed surveys resulted in significantly greater returns over the more traditional postal delivered survey, even after discounting partial returns and abandonments, thus indicating a clear willingness to respond for all non-manual IT literate employees. This work is supported by Barrios et al (2008) who found that response rates were significantly higher in e-mailed web questionnaires than in traditional postal mail

questionnaires. Barrios et al (2008) found that overall, 64.8% of web surveys are returned, as compared to 48.8% of postal mail surveys. Baruch and Holton (2008) examines the response rates for surveys used in organisational research, they examined the response rates in studies, which covered more than 100,000 organisations and 400,000 individual respondents. The average response rate for studies that utilised data collected from individuals was 52.7 percent with a standard deviation of 20.4, while the average response rate for studies that utilised data collected from organisations was 35.7 percent with a standard deviation of 18.8. Electronic data collection efforts (e.g. e-mail, phone, web) resulted in response rates as high as or higher than traditional mail methods. However, “Despite the advantages associated with electronic survey methods, the literature regarding response rates to electronic surveys is somewhat conflicting” Hart et al (2009:18), this statement is further supported via the high standard deviation found in Baruch and Holton’s (2008) work detailed above, with a standard deviation of 20.4 on an average of 52.7 percent suggesting respond rates below 10% could be found in the general population.

Prior work has identified a general decrease in the level of response rates over time. Steeh (1981) found a decreasing response rate between the 1950s and the 1970s for a specific population survey. Baruch (1999) clearly identified continuation of the trend in their organisational studies. Cycyota and Harrison (2006) document a decline in response rates among surveys targeted at executives. Rogelberg and Stanton (2007) identify a number of factors that may contribute to further decline in individual response rates. One of these factors being survey saturation.

So, albeit electronic methods are arguably now the popular choice to enhance response rates, response rates in general are found to be falling. According to Fisher and Herrick (2012) the most common method of surveying, postal mail surveys, is expensive, slow, and also has declining response rates.

Promised incentives, monetary and non-monetary rewards have also been found to increase response rates (Yu & Cooper, 1983, Isaac and Michael, 1990; Torabi 1991; Rose et al., 2007). Still, the literature is not clear about the impact of different techniques on response rates especially when data is being sought from different populations. In their study of response rate at the executive level, Cycyota and Harrison (2002) tested the impact of incentives; gifts, advance notice, follow-up, and personalisation, as well as possible moderation of

organisational size, and found that none of the conventional response rate enhancement techniques were effective.

Follow up e-mails formed part of this study and proved to be very effective as did the use of a prize draw. Other known methods to increase response rates include, using known paid research participants, undertaking research with small focus groups, who, are often well known to the researcher, and placing questionnaires in front of a captive audience waiting for an event to happen, i.e. the film will start once the questionnaire has been completed (Isaac and Michael, 1990; Torabi 1991; NEA). The last method is ever more prevalent in the growing arena of social networking (Facebook, Twitter, Youtube, etc.).

The advent of Internet surveys enhances the ability to effectively survey. "Internet surveys of the general population have been growing in use over the last few years because they are less expensive, faster, and greener than most other survey modes" (Fisher and Herrick, 2012:147). Orr (2005) identified several potential advantages of Internet surveys: efficiency, timeliness, global, cost savings, accessibility, limit data entry errors, real-time access, conserves resources, interactive elements, multimedia features, question controls, limited burden, design simplicity, population reach, and information quality. Two of the largest advantages are time and money savings. One study found the average response time in a 1998 mail survey was 18 days compared with 4 days for an Internet survey (Bachmann, Elfrink, and Vazzana, 2000). It is not uncommon for traditional postal methods to take greater than 3 days to reach the respondent, thus e mail speeds up the data gathering process.

The overall response rate received from this survey is 4.53%, see table 4.2 below, the literature highlights response rates between <10% - >50% can be expected. With such huge variance it is not surprising that the response rate received is within the expected boundaries. This response rate falls in line with the literature regarding large UK e-mail surveys but sits in at the lower end. There can be many reasons for this, Mc Peake et al. (2014:25) discuss survey response rates and identify the following two criteria for low response rates; "1. The population being surveyed. 2. A lack of trust respondents may have in sending confidential information over the internet." I believe these two reasons are a very likely cause of a low response rate in this research study.

1. The population being surveyed; Business by nature is a competitive world, sharing sensitive business information to a total stranger rings alarm bells. I would not send sensitive business information to an unknown person, one of my fears would be that it could be a competitor fishing for information about how our business is performing. This notion is supported by the pilot study findings in Chapter three section 3.3.3. The e mail address I used for the first pilot study was my business address, this resulted in a zero response rate, it was only when I changed to a student e-mail address that I started to receive responses. This non-response and poor response demonstrates the reluctance in business to share sensitive information, even when the survey is being undertaken by a student.
2. A lack of trust respondents may have in sending confidential information over the internet; As above, even if you can persuade a business to share sensitive information, there is less likelihood of this information being sent over the internet. I feel respondents may be more willing to give out information face to face via interview rather than issuing documented sensitive business information.

A further reason for a recent demise in survey response rates as identified by McPeake et al (2014:25) may be survey saturation. Meyer et al. (2015:201) discuss the problem of “Rising unit non-response in major surveys” and how this has been a heavily discussed topic in the survey research community. Unit non-response was the subject of two National Research Council reports and a special issue of a major social science journal. Albeit Meyers (2015) work was focused around household surveys within the United States this work talks about significant declines in recent survey response rates across the board.

Table 4.2 Survey Response Rates

Total surveys mailed	8752	
Total rejected via opt out choice	107	1.2%
Total rejected	243	2.8%
Total responses	397	4.5%
Total responses completed	222	2.5%
Lost/Un-answered	7783	88.9%

The tools employed to enhance response rates include; a prize draw, follow up reminders and the use of a student e-mail address to deliver the questionnaire. As discussed in the literature (Cook et al., 2000; Kaplowitz et al, 2004), follow up reminders are known to increase response rates by as much as 25%. Follow up reminders resulted in further questionnaires being completed, the initially response rate of 2.5% was doubled to 5.3% by sending out three follow up reminders. This falls in line with the literature. A further indication that the offering of a prize was the reason why respondents completed the section was that only 6 people were willing to be interviewed when requested, this was despite all 397 leaving contact information, the only other reason for leaving contact detail was to be entered into the prize draw. The utilisation of a student e-mail address made a considerable difference to the response rate, as detailed earlier.

4.2.1 Low Response Rates

As discussed above online surveys offer significant cost and speed advantages over conventional paper-based surveys. However, response rates tend to be low, thus limiting statistical power and raising concerns about sample selection bias and representativeness, Sauermann and Roach (2013). With only 5.3% of usable questionnaires returned in this study one has to consider the effects of sample selection bias, if the 5.3% who responded to this survey were quite similar to the 94.7% who failed to respond then there would not be a consideration. However, it is not often the case that respondents are a perfectly random subset of those to whom surveys were originally mailed, and this creates the problem of non-response bias (Dillman, 1991). This said, the assumption above has been challenged by other researchers, who suggest that in circumstances where the cause of non-response is related to topic sensitivity, the relationship between response rate and non-response bias is not clear-cut (Groves, 2006 and Groves and Peytcheva, 2008). Sensitive questions are seen as intrusive or threatening to disclosure because they touch on topics that are undesirable to share as they can have a negative net effect on business results. Bearing everything in mind one has to take the low response rate into consideration when making generalisations about the outcomes of this research.

This response rate information provides future researchers with an approximation of how many contacts they are likely to need to have in their contact database in order to attain a statistically strong response rate. Every circumstance regarding collating data differs slightly, attaining an improved understanding regarding response rates in this sector via the chosen method adds to

the current knowledge base. I will now start to analyse the questionnaire, question by question, threading in qualitative data attained from the undertaking of the semi-structured interviews.

4.3 About your business.

4.3.1 Question 1 – Business trading sector...have I captured the target audience?

This question was designed to attain an understanding of the nature of business undertaken by the respondents, manufacturing businesses were targeted, answers to this question will enable me to establish whether the target audience had been reached.

Table 4.3.1 a Questionnaire business descriptors

Questionnaire Respondents	Ratio	%
No. of respondents who answered the question	300/397	76%
No. answered using SIC code	86/397	22%
No. manufacturing SIC codes	71/86	83%
No. typed manufacturing link word	96/397	24%
No. total descriptive response	225/397	57%

The research was aimed at UK SME manufacturing businesses. 300 respondents answered this question, 86 responded by entering a numerical SIC code. 71/86 entered numbers between 20-39 as the first two digits, manufacturing SIC codes start with these two digits. A selection entered one digit codes with others entering 2, 3, 4, 5, 6, 7 and 8 digit codes, this highlights many respondents do not fully understand the SIC code system. The most common typed in response was manufacturing, 96 people entered this answer. Engineering, electrical, printing, packaging, and industry being the common typed answers. Some respondents specified more detail, answers such as boat building, manufacture of mechanical cables and computer compatible badge manufacturer. In total 225 respondents typed a descriptive response. Almost all the answers provided manufacturing SIC codes or business descriptions. The fact that the data entry field was left as a text field worked well, it allowed respondents to type in what they wanted, this ultimately led to a clearer understanding that the target audience was reached. There was no split in business descriptors between PGB qualification holders and non-PGB qualification holders. The Data was categorical, primarily relating to the manufacturing sector.

The interviews further confirmed that I had reached the target audience, with the six interviewees identifying themselves as having an engagement in manufacturing. Table 4.3.1 b identifies business engagement of the six interviewees.

Table 4.3.1 b Interviewee business descriptors

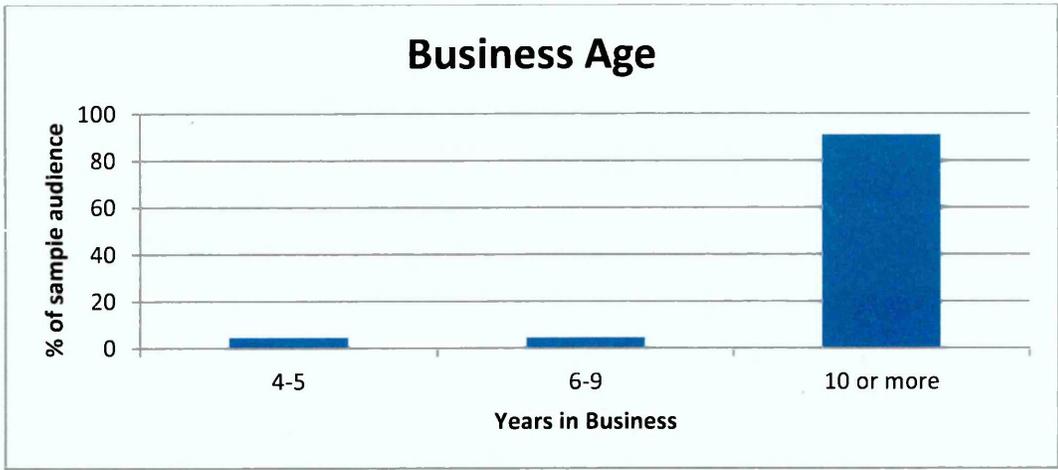
Interviewee by Name	Business Descriptor
Abbas	Product manufacture
Martin	Engineering
Peter	Engineering
Gordon	Product manufacture
Michael	Marketing material design and manufacture
Tom	Product manufacture

Three of the interviewees held the Post Graduate Business qualification, three did not. The combined qualitative and quantitative data confirms a good heterogeneous manufacturing business mix was achieved, without any bias towards each category of business manager under investigation.

4.3.2 Age of the business.

The rationale behind this question was to understand the proportional age split of UK Manufacturing SMEs who supplied data for this thesis, and to find out if the majority of surveyed businesses are well established.

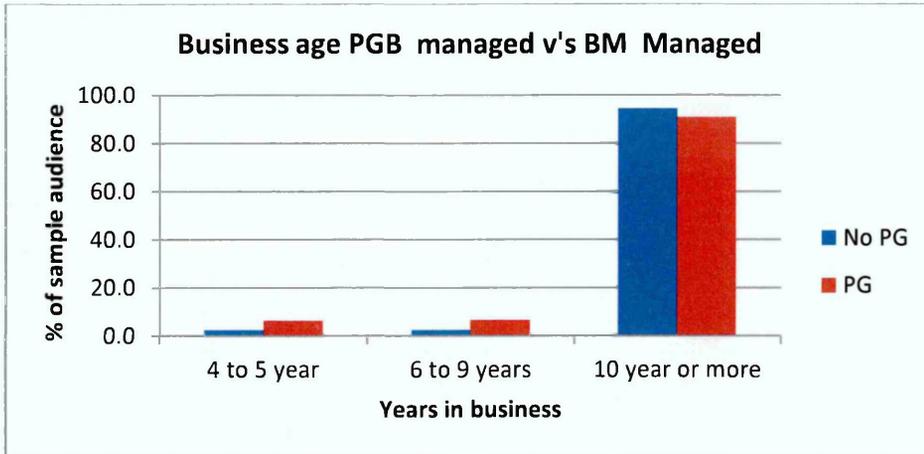
Chart 4.3.2a Business age



Are businesses in this sector ‘turning over’ quickly, i.e. starting up and closing down before three years in operation. In order to understand growth trends, I need to be sure that the respondent businesses are established. It would be difficult to undertake trading analysis on businesses that were recently established. I discarded data from businesses that had been trading between 1-3 years at the data cleansing stage, there were only a few to discard (less than 10). Results demonstrate that the respondent businesses are well established and that the majority of respondent businesses are not turning over quickly, this is good news. The question was answered by 336/397 respondents.

The data was analysed to see if there was a differential split between PGB managed businesses and BM managed businesses in respect to business age.

Chart 4.3.2b Business age split between PGB and non PGB



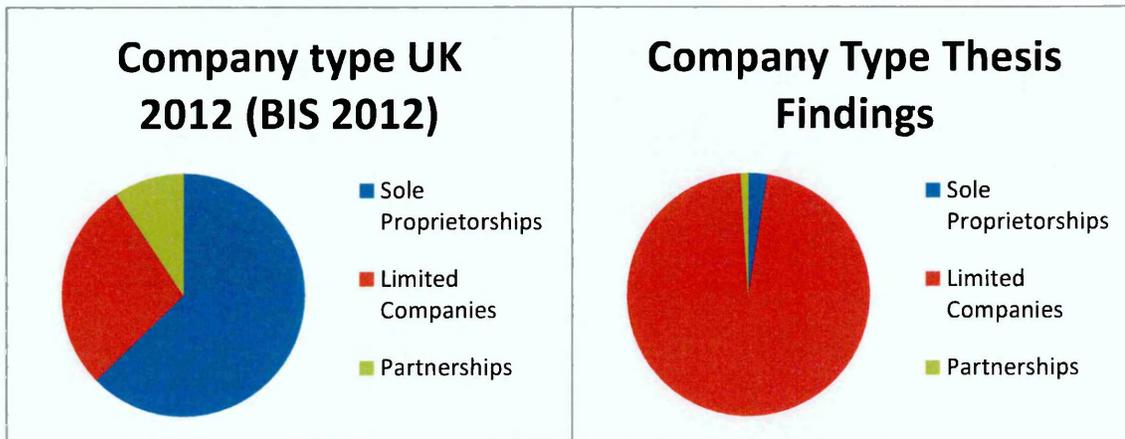
Histograms for the two conditions highlight that the data is skewed, participant numbers are strong. The non-parametric Mann Whitney U statistical test is utilised to compare the two groups; the test is the preferred choice to analyse skewed data. The confidence level to determine significance was set at $p < 0.05$ (95% confidence). Descriptive statistics show the mean rank for group 1 (without PGB) to be 170.5, $n=215$, the mean rank for group 2 (with PGB) was 164.9, $n=121$. The Mann Whitney U is 12570 with a Z score of -1.2 with an associated probability of 0.243. I therefore determine that the null hypothesis is maintained that there is no significant difference between the two groups.

The businesses which participated in the interviews were well established, most had been trading for over ten years. This is good news as business age can be negated as a contributor towards any further separation in findings across PGB to BM managed businesses.

4.3.3 Business status; type/ownership/family business?

This sub-section explores business make up, structure and ownership status. The literature identifies these variables can influence business growth and performance. Questions focused on business structure are grouped together and explored collectively.

At the start of 2012, 62.7 per cent of all private sector businesses were sole proprietorships, 28.0 per cent were companies and 9.3 per cent were partnerships. There were an estimated 3.0 million sole proprietorships in the UK at the start of 2012, of which 296,000 (9.9 per cent) had employees. There were 1.3 million companies, of which 785,000 (58.6 per cent) had employees. There were an estimated 448,000 partnerships, of which 155,000 (34.6 per cent) had employees (BIS 2012).



This research focuses on manufacturing SMEs with 10-249 employees, this means that the vast majority of sole proprietorships and partnerships will be excluded from the research findings as they employ less than 10 people, thus the makeup of the businesses within this research does not match with national SME figures. This is clearly depicted in the pie charts detailed above. The split between PGB and BM managed businesses is detailed in the chart below.

Chart 4.3.3a Breakdown of type of business - PGB employees sort.

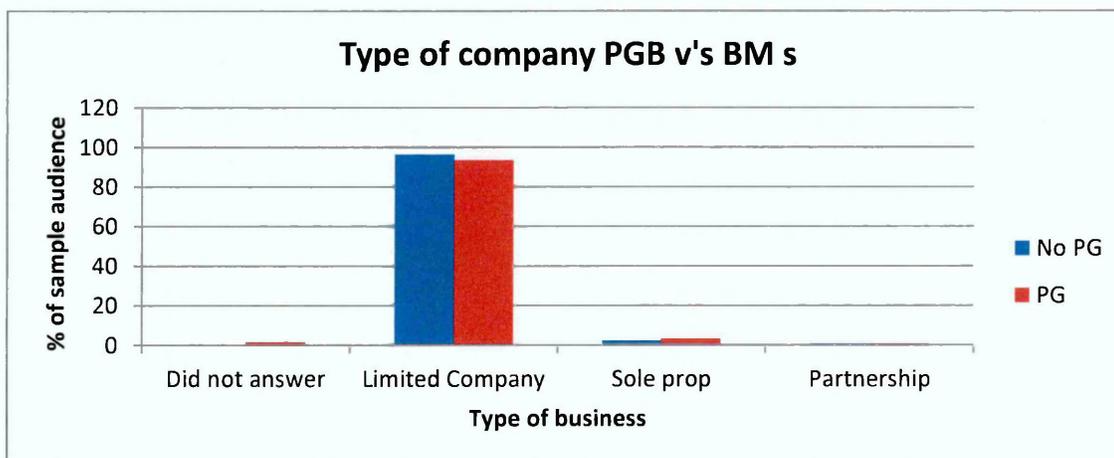


Table 4.3.3a Breakdown of business type

	Did not answer	Company	Sole Prop	Partnership	Total
Count and % without Post-Graduates	1	209	5	2	217
%	0.50%	96.30%	2.30%	0.90%	100.00%
Count and % with Post-Graduates	2	115	4	1	123
%	1.60%	93.50%	3.30%	0.80%	100.00%
Count and % totals	3	324	9	3	340
%	0.90%	95.30%	2.60%	0.90%	100.00%

Undertaking a statistical analysis of the quantitative data demonstrates that results across both groups are very similar, 93.3% of businesses were companies without PGB on the management team measured against 93.5% of those that had PGB, 2.3% and 3.3% respectively were Sole Proprietaries and 0.9% and 0.8% respectively being Partnerships. The Pearson's Chi squared output value was 3.312^a with 3 Degrees of Freedom (DF) and a probability outcome of 0.51 Asymp.Sig. (2-sided), n= 340, confirms the null hypothesis can be assumed, there is no difference in business type in respect to the split between PGB and BM managed businesses. All the Managing Directors that took part in the interviews were Managing Directors of Limited Companies, with the split between PGB and BM managed business being even, the findings fell right in line with the quantitative data findings. This confirms further that the businesses under research are similar in nature, this, again, is good news as potential variability and associated variables are negated in respect to business type.

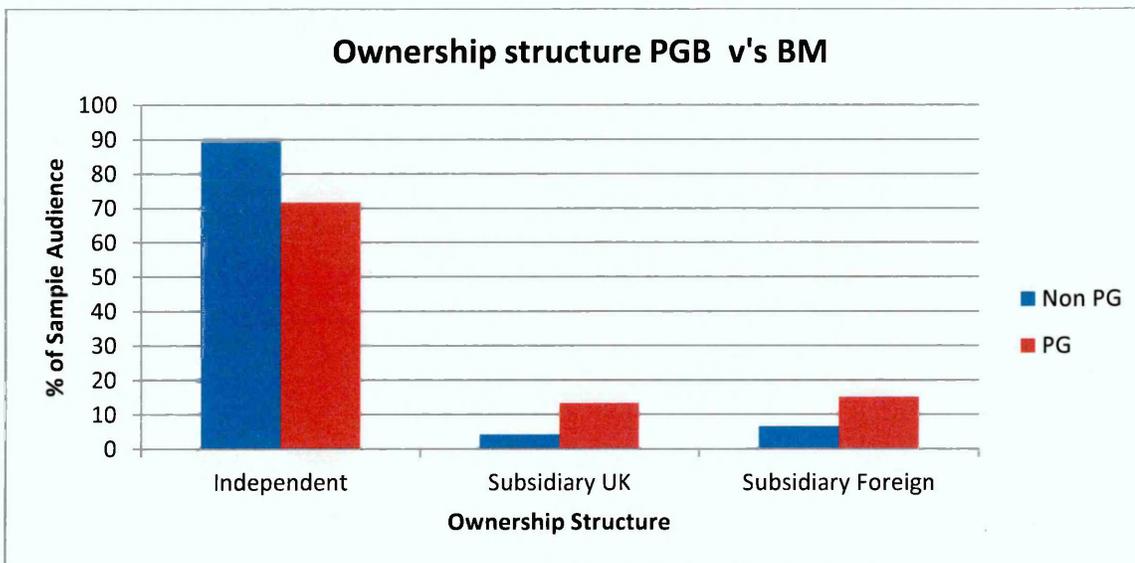
The dominant organisational type is limited company, with limited variability in terms of age and structure operating in the manufacturing sector. However, what about the ownership structure of these businesses, is there a similar dominant theme? This is quite important because the literature highlighted that ownership structure can have an effect on business performance (Berle & Means 1932; Demsetz, 1983; Demsetz & Lehn 1985; Cho 1998). If ownership structure differs, business performance relating to business growth across groups can be analysed and findings can be compared to previous literature. Table 4.3.3b below shows the split of the businesses researched in terms of ownership structure.

Table 4.3.3b Breakdown of business by ownership structure split by PGB

	Ownership structure			
	Independent	Sub UK Bus	Sub foreign Bus	Total
Count Without Post-Graduates	190	9	14	213
%	89.20%	4.20%	6.60%	100.00%
Count with Post-Graduates	86	16	18	120
%	71.70%	13.30%	15.00%	100.00%
Total Count	276	25	32	333
Total %	82.90%	7.50%	9.60%	100.00%

Once again there is a dominant theme, this being that in the main the businesses are independently owned, however there are enough subsidiary owned businesses in the sample to investigate ownership structure and performance. The divide between PGB and BM is now explored. See chart 4.3.3b below;

Chart 4.3.3b Ownership Structure PGB v's Non-PGB

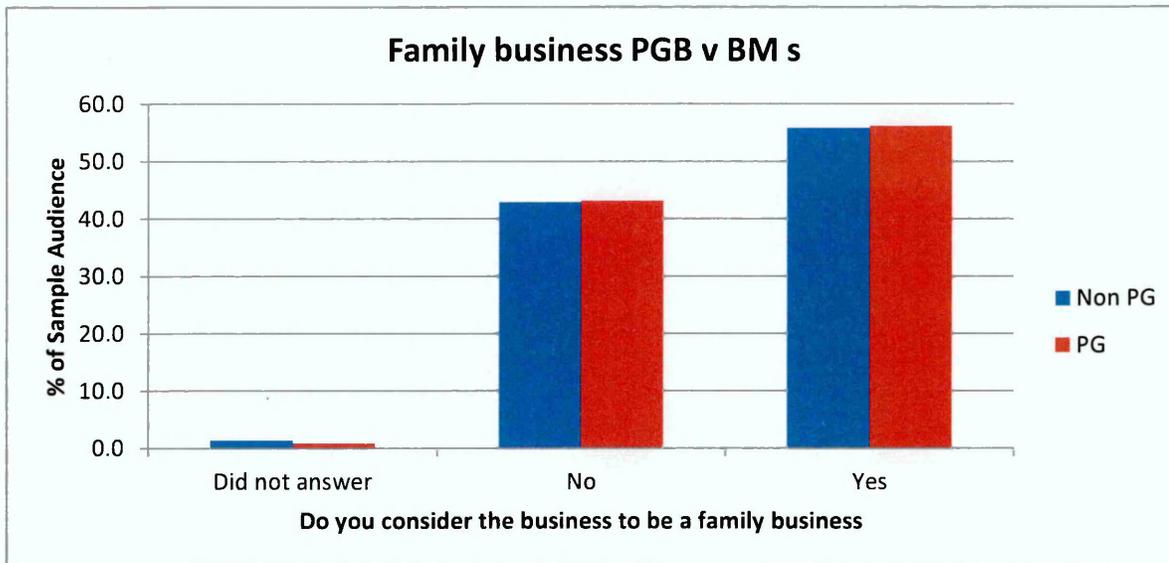


Results across the groups are disproportionate on this occasion, both UK and Foreign Subsidiary business demonstrate a trend reversal with more PGB employed. The data is not normally distributed; the data is negatively skewed. The Kruskal Wallace test was utilised, this test is used when you have more than two groups to compare, as in this example where we

have three; Independent, UK owned subsidiary and foreign owned subsidiary. As with the Mann Whitney you do not have to worry about the shape of the distribution curve. The formula for Kruskal Wallace is based on the ranks of the scores rather than the scores themselves. The test looks for significance between the mean ranks of some or all of the conditions, similar to ANNOVA. The Kruskal Wallace score of 14.8 with 2 DF and a $p = < 0.001$ Asymp. Sig (2 tailed) $n=349$, denotes the null hypothesis can be rejected, there is a significant difference between PGB and BM managed businesses in respect to ownership structure. Subsidiary businesses employ more PGB.

The third and final variable that is often raised when the ownership and structure of SMEs is discussed is that of the family business. The literature highlights high degrees of variability between family and non-family business; (Anderson & Reeb, 2003; Westhead, 1997; Storey, 1994) with Story (1994) identifying that most notably, a number of studies have failed to control in their univariate comparisons for the potentially distorting influence of demographic sample differences between family and non-family firms. This failure to control for variables is surprising when it has been repeatedly noted that firm characteristics, e.g. professional business managers, family business and ownership structure can have a significant influence on business performance relating to business growth. Hence the importance to identify, control and measure the effect of the variables as part of this thesis. The businesses surveyed within this thesis are asked whether they class the business to be a family business or not, the answers are charted below; chart 4.3.3c, with the split between PGB and BM identified.

Chart 4.3.3c Family business classification with and without PGB



PGB and BM managed businesses were homogeneous in terms of family business ownership as highlighted by the Pearson's Chi squared categorical comparison test results as detailed; Chi squared value of 2.19a was achieved with 2DF and a probability value of .896 Asymp. Sig. (2 sided), n=340, thus the null hypothesis can be retained, resulting in confirmation that there is no differential split between the level of PGB which are employed in within family business and non-family businesses.

So, the first few questions on the questionnaire alongside interview findings have identified, that, in principle, the relationship to the nature of business undertaken, classification type of business, years in operation, and whether the businesses are family businesses or not, are the same across PGB and BM managed businesses. In principle the businesses are a pretty homogeneous mix with little variability identified to date regards type of business, age of business, with the split between PGB and BM managed business in the family firm being fairly equal. One fundamental difference that the research has highlighted is that subsidiary owned businesses employ more PGB, the performance of these businesses is explored later. The other piece of interesting information identified by the research is that it appears that family businesses are employing an equal number of PGB in the sector explored, this is contradictory to current literature. To date business performance has yet to be analysed. I will now explore the numbers employed, revenue generation and profitability of the participant businesses.

4.3.4 Employment levels, turnover and profit

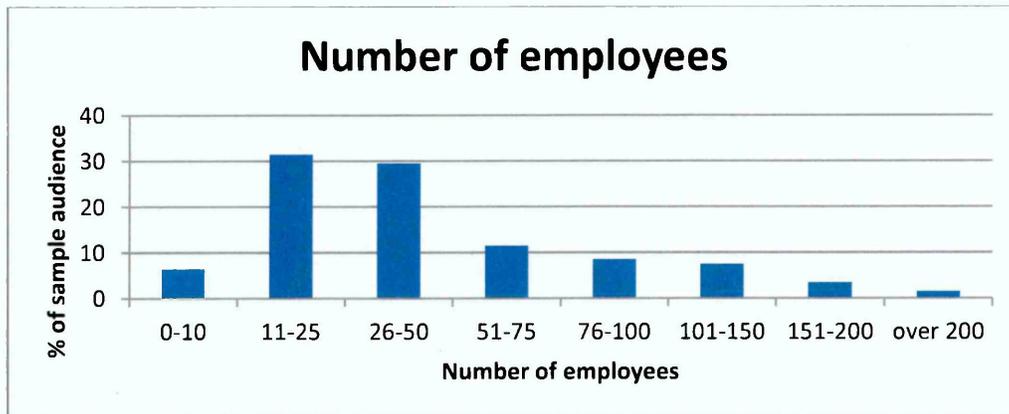
This section investigates quantitative business measures; numbers employed, revenue generation and company profitability. The questions are explored individually and collectively, cross-correlation between these variables is also explored.

How many people did you employ in the following years?

- 1 2009
- 2 2010
- 3 2011

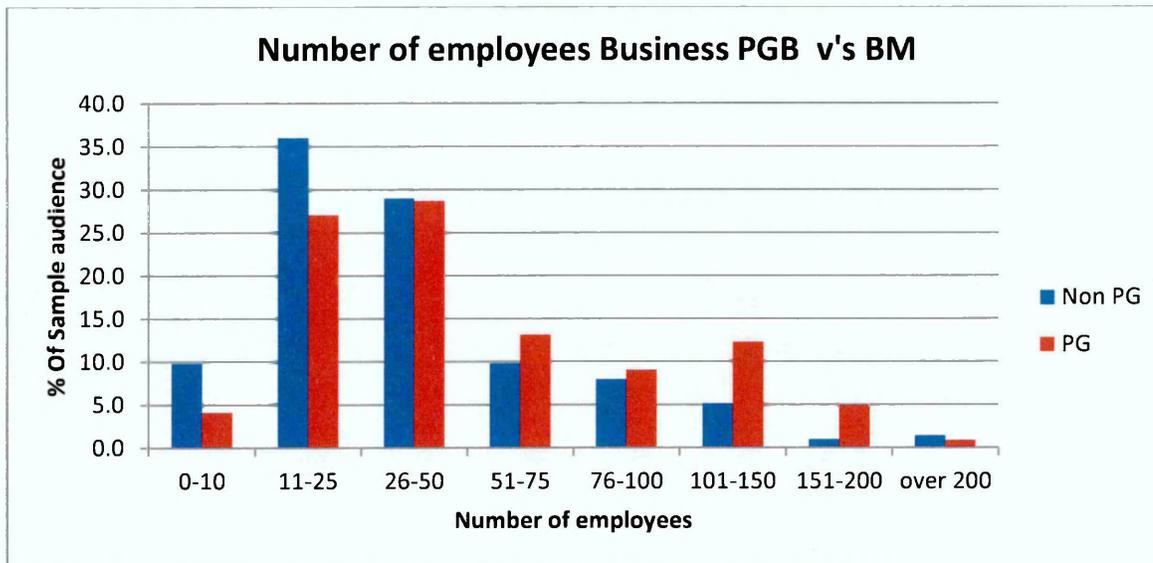
The employee numbers for the three years were combined and divided by three to give an average employee level over the three years, this depicts a better picture as potential peaks and troughs are removed. The results are charted below.

Chart 4.3.4a Average Number of employees 2009-2012



The split between PGB and BM employment levels was then explored.

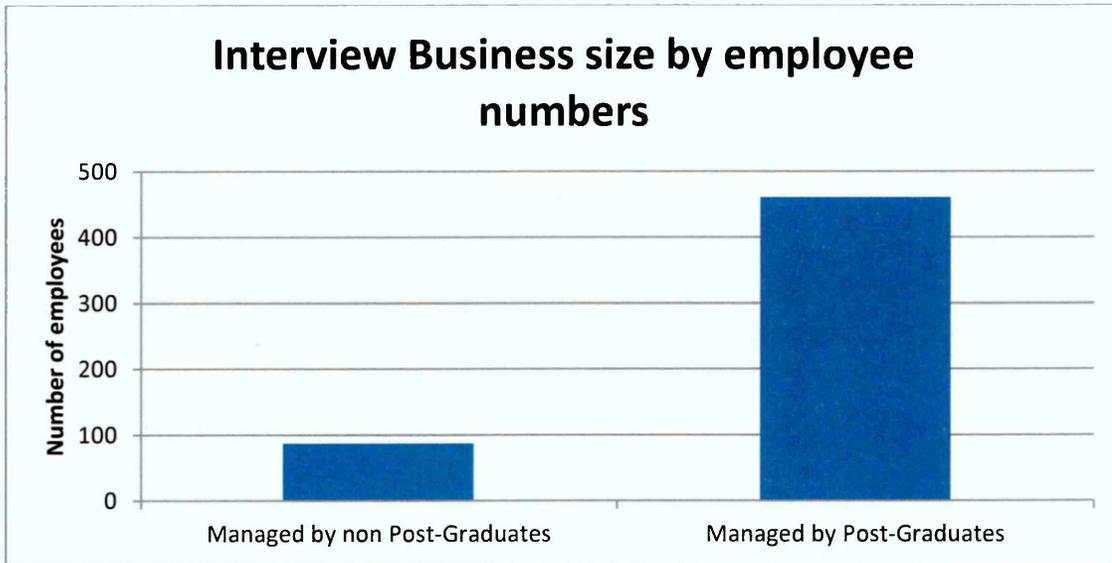
Chart 4.3.4.b 2009-2012, PGB v's BM companies



As the histogram above demonstrates the data sets are not normally distributed, they are skewed. Non-parametric tests are best suited to identify difference in skewed data. The Mann Whitney test assess whether there is a statistically significant difference between the mean ranks of the two conditions. The Mann Whitney test is best suited for circumstances that involve having two different sets of participants, as on this occasion. The mean rank score of the businesses not managed by PGB is 156, n=214, the mean rank of businesses managed by PGB is 190, with this being higher than 156 it is evident there is an increased ranking, and therefore the PGB managed businesses employ more people. The Mann Whitney U test score is 10381.5, the Z score is -3.21 with an Asymp. Sig. (2 tailed) probability outcome of .002 (2% probability), thus the null hypothesis is rejected, denoting that there is a significant difference in the numbers employed within PGB managed businesses.

The quantitative data is supported by the interview data, albeit in a quantitative manner. See chart on the following page.

Chart 4.3.4c Interviewee business size via employee numbers

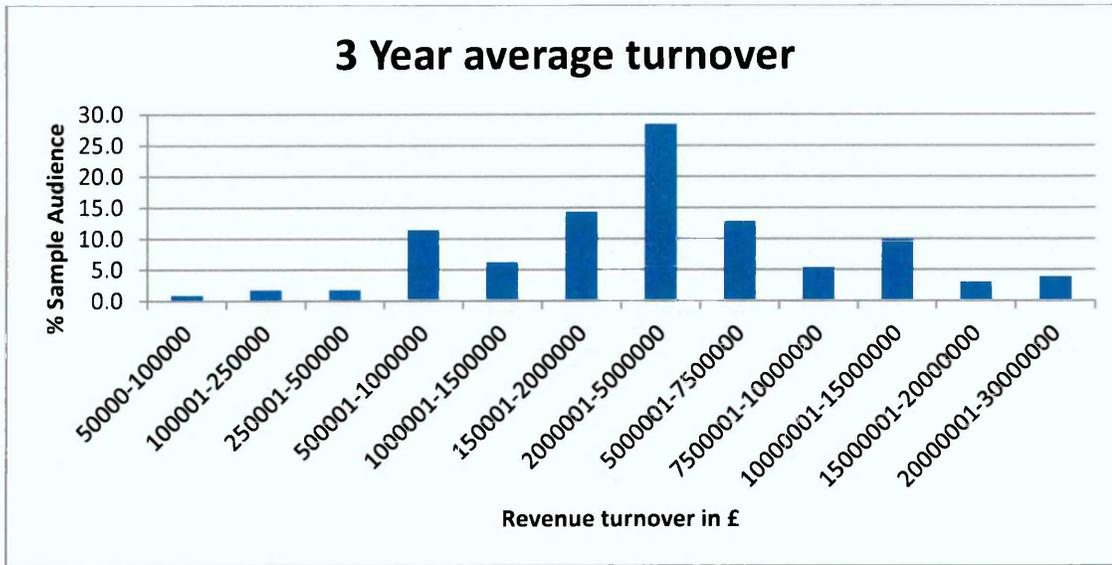


The next question explores revenue generation.

Please state your company turnover over in the following periods; 2009, 2010 and 2011.

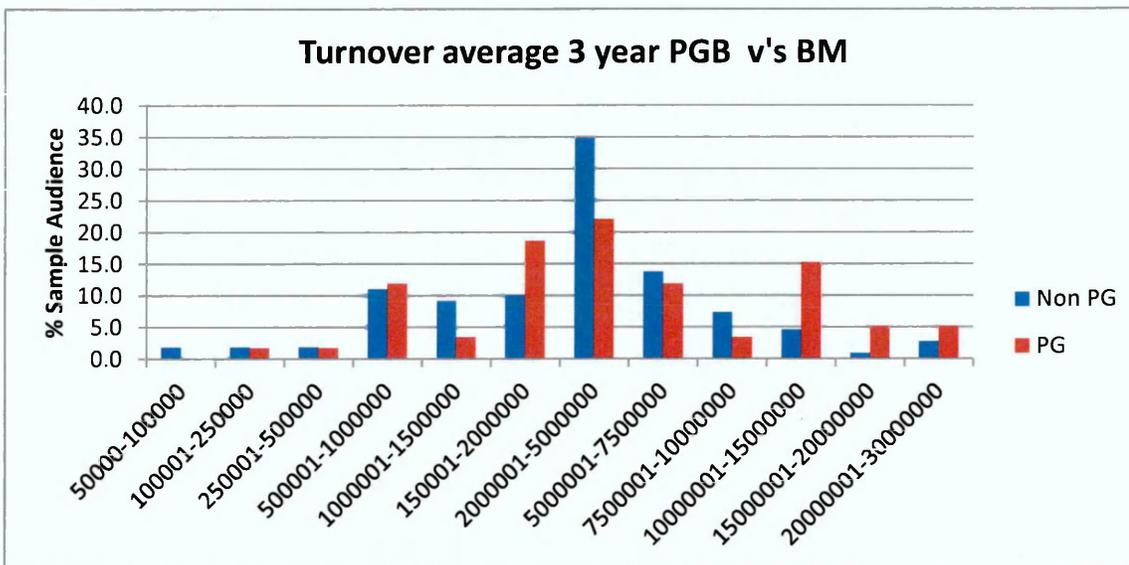
The results are averaged over the 3 years (3year averages are nominally used to provide a better reflection of business performance, removing annual peaks and troughs that are often witnessed).

Chart 4.3.5a Average Revenue Turnover 2009-2012



The data was then sorted between PGB and BM.

Chart 4.3.5b Average Revenue Turnover 2009-2012, PGB v's BM



A Mann Whitney U test is undertaken to determine whether there was a significant difference in business that are and are not managed PGB on the management team. The confidence limits were set at $p = < .05$ (95% confidence). Descriptive statistics showed that annual turnover between the two groups was not significantly different. The Mann Whitney U score was; 2939, with a probability score of 0.239 Asymp. Sig (2 tailed). The mean ranks were 82 with BM management teams and 92 with PGB management teams. The Z score was -1.17, therefore the

null hypothesis is maintained denoting that there is no significant difference between the turnover of businesses managed by PGB and BM.

Although revenue generation is clearly higher in the PGB group, it is not statistically significantly higher, so what about the third financial business metric employed, profitability? I will now explore this measure.

Please state your profit over the following periods; 2009, 2010, 2011.

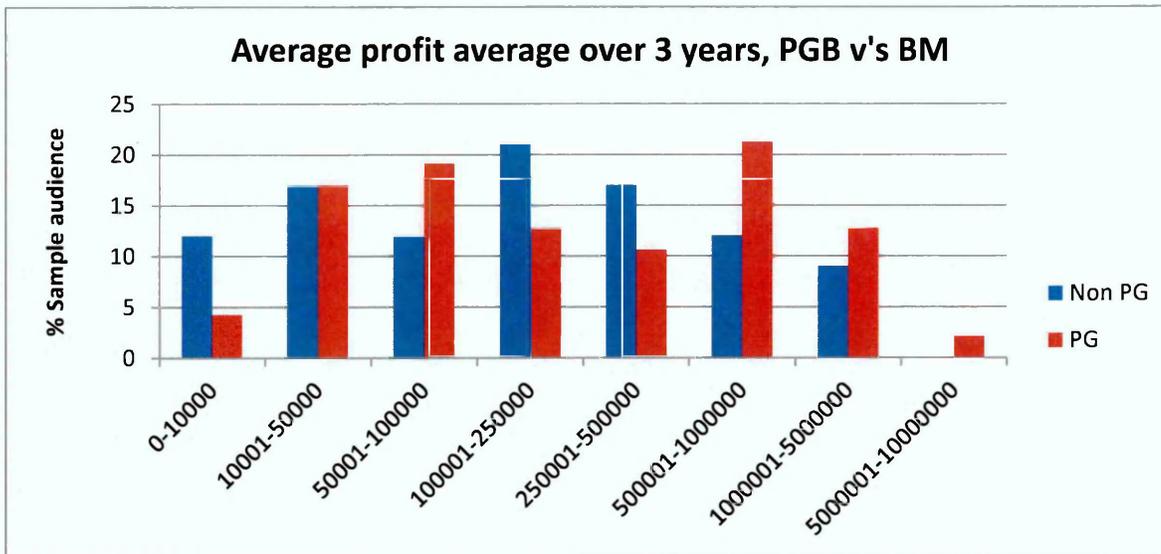
The results are averaged over the 3 years (3 year averages are normally used to provide a better reflection of business performance, removing annual peaks and troughs that are often witnessed).

Chart 4.3.6a Average Profit 2009-2012, PGB v's BM



The figures are now split between PGB and BM.

Chart 4.3.6b Average Profit 2009-2012, PGB v's BM



The data was analysed as discrete data and results are shown above. The student t test could not be used because Levene's test for equality of variance highlighted inequality, therefore the most suitable test to analyse this data was the Mann Whitney U test. A Mann Whitney U test was undertaken to determine whether there was a significant difference in business that are and are not managed with PGB on the management team. The confidence limits were set at $p = < .05$ (95%). Descriptive statistics show that the average three years' annual profit between the groups was not significantly different. The Mann Whitney U score was; 2648, with a probability score of 0.762 Asymp. Sig (2 tailed), the mean ranks were 78 BM management team and 80 PGB management team. The Z score was -0.303. Therefore, the null hypothesis is maintained in that there is no significant difference between profitability of businesses managed by PGB and BM.

4.3.5 Correlation

The previous section explores the metrics utilised to measure business growth, these being; number of employees, revenue turnover and profitability. Having collated this data, I now explore correlation between the three metrics. My thinking is that there should be a strong correlation between number of employees and revenue generation, the thinking behind this is quite simplistic; the more staff you employ the more money you need to pay them. In terms of correlation between number of employees and profit or revenue generation and profit then I am not so sure, there is an old adage in business; 'profit is sanity, turnover is vanity' this adage

suggests there may not be correlation between turnover and profit. With the data to date revealing that businesses with PGB employed on the management team employ significantly more staff, but not making significantly more profit, or generating significantly more revenue, it would appear that the chance of high correlation is weak. I will now explore the numbers to determine the strength of correlation.

Table 4.3.5 Correlation Profit/Turnover/No Employees

Correlation Profit/Turnover/No Employees				
		Ave Employees	Ave Profit	Ave Turnover
Ave Employees	Pearson Correlation	1	.321**	.727**
	Sig. (2-tailed)		.000	.000
	N	355	160	174
Ave Profit	Pearson Correlation	.321**	1	.440**
	Sig. (2-tailed)	.000		.000
	N	160	160	159
Ave Turnover	Pearson Correlation	.727**	.440**	1
	Sig. (2-tailed)	.000	.000	
	N	174	159	174

** . Correlation is significant at the 0.01 level (2-tailed).

The results confirm the thinking, there is strong correlation between number of employees and revenue generation, medium correlation between revenue generation and profit and low correlation between numbers employed and profit.

This section has identified that businesses that employ PGB employ more people, have an increased revenue generation and make more profit, albeit the only metric that stands up to proven statistical analysis to determine that the increase is significant is that which relates to the number of employees. Correlation analysis shows there is a high correlation between number of employees and revenue generation but only a slight correlation between revenue generation and profitability, likewise between number of employees and profitability.

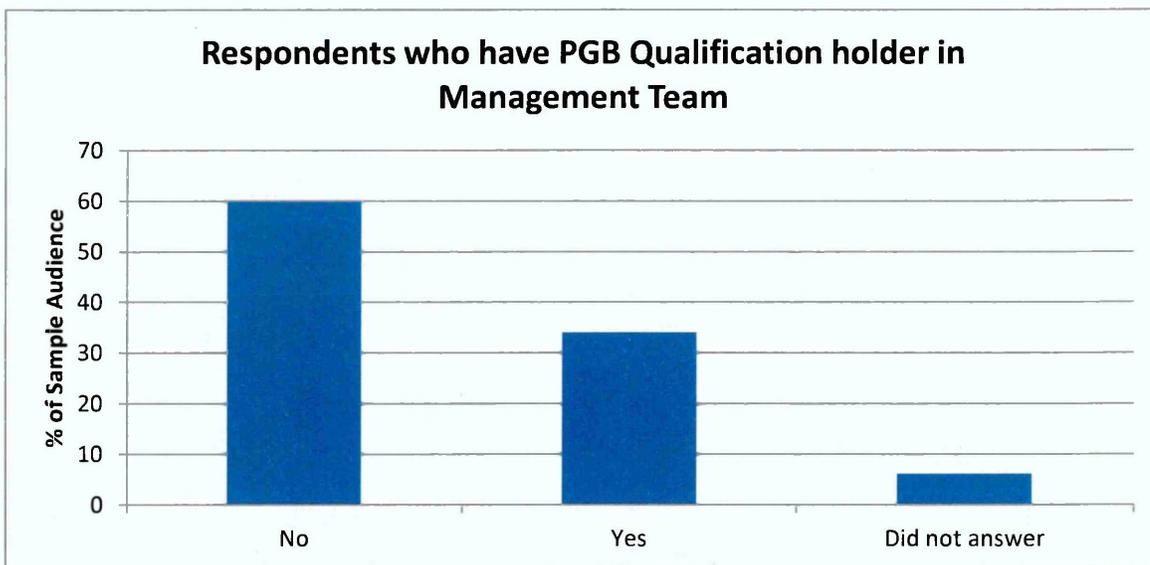
So, growth is enhanced when the PGB qualified manager is employed, with this in mind I will now further investigate the PGB qualification.

4.4 The PGB qualification.

This section explores the PGB qualification and variables that are often attributed to holding the qualification, namely; prior management experience before undertaking the qualification, the length of that experience if any and the amount of time the qualification has been held. The size of the management team is also explored, are teams managed by PGB larger or smaller? The literature identifies academics have opposing views on the importance of these variables. The first part of the section is to understand how many of the businesses that took part in the survey have managers in the senior team that hold the PGB qualification, detail regarding the level of PGB employed in senior positions within the UK SME manufacturing sector is sparse.

Do you have a PGB qualification e.g. MBA, MSc or MA?

Chart 4.4.1 Total number of actual respondents who hold PGB qualifications within the senior team.



34% of respondents hold a PGB qualifications. 3 of the 6 who were interviewed held the qualification.

How many members of the management team hold a PGB degree in business e.g. MBA, MSc or MA?

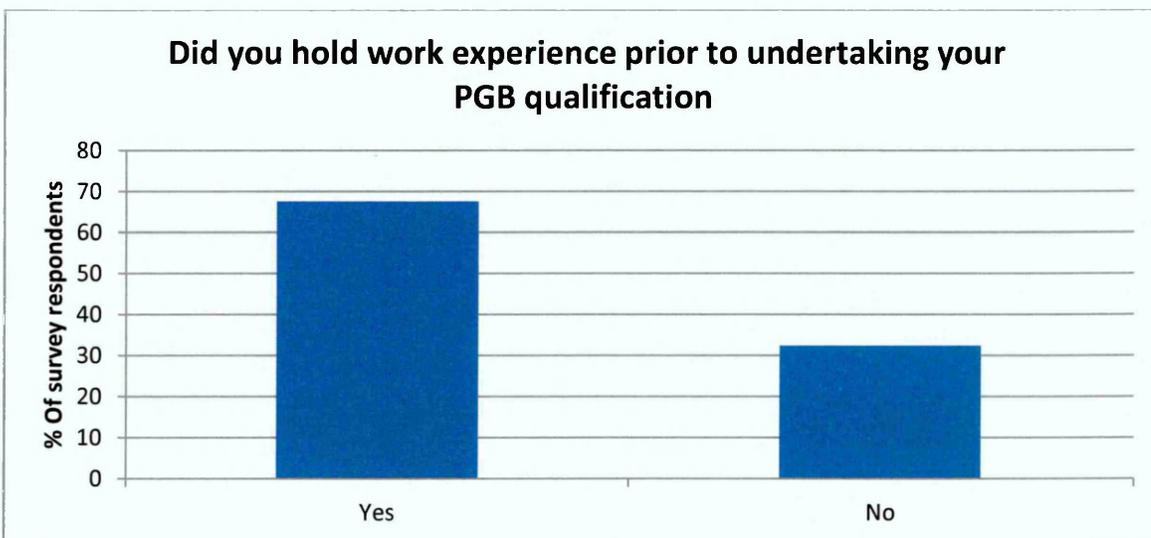
Chart 4.4.2 Team Members with PGB qualification



In total 123 managers were identified as holding a PGB qualification and being part of the senior management team, this represents 34% of the managers on the management teams. This group forms the basis of all comparative information when with PGB and without PGB statistics are shown. Three of the six who were interviewed held a PGB qualification.

Did you have work experience before you undertook your PGB qualification?

Chart 4.4.3 Did you have work experience prior to undertaking the PGB qualification.



67% of PGB reported that they had prior work experience. The literature highlights a current debate surrounding the relevance of prior work experience before undertaking a PGB

qualification. With this in mind I set out to explore whether business performance relating to business growth was improved when prior business experience had been undertaken compared to the group of PGB who had no prior business experience. Mann Whitney U tests were undertaken between the group having prior experience and the group not having prior experience in relation to number employed, revenue generation and profit. Details tabulated below.

Table 4.4.3 Work experience prior to obtaining PGB qualification.

	Work experience before Post Grad	N	Mean Rank	Sum of Ranks
Ave Turnover	No	11	18.14	199.5
	Yes	32	23.33	746.5
	Total	43		
Ave Profit	No	10	21.5	215
	Yes	28	18.79	526
	Total	38		
Ave Employees	No	23	33.65	774
	Yes	48	37.13	1782
	Total	71		

Test Statistics ^a			
	Ave Turnover	Ave Profit	Ave Employees
Mann-Whitney U	133.5	120	498
Wilcoxon W	199.5	526	774
Z	-1.183	-0.664	-0.664
Asymp. Sig. (2-tailed)	0.237	0.507	0.507
Exact Sig. [2*(1-tailed Sig.)]	.241 ^b	.524 ^b	
a. Grouping Variable: Work experience before Post-Graduate			

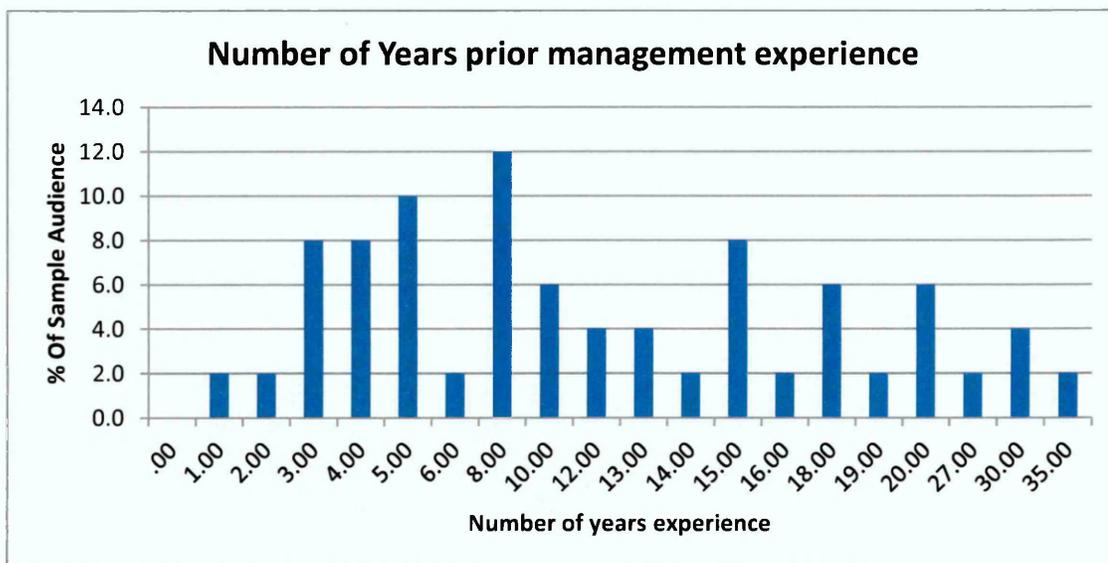
Mann Whitney scores of 133.5, 120 and 498 with $p = .241, .507$ and $.507$ and $n = 43, 38$ and 71 in relationship to Turnover, Profit and Employees respectively the null hypothesis can be maintained, there is no difference between results of business managed with PGB having prior management experience and those without prior experience. Out of the three interviewees who held the PGB qualification two had previous management experience prior to undertaking the degree, Peter and Abbas, Tom was the only one who came straight from University and into

work, however Tom's initial role was a technical role within a larger company. Tom did not enter into management until later in his career.

Quantitative test results show no difference in businesses that are managed by PGB with previous management experience and those that have no previous management experience. It was decided not to undertake analysis regards the amount of prior experience and results attained due to the fact that no difference was found between having and not having prior management experience. Prior PGB qualification experience data was collated and is displayed below.

How many years' experience did you have prior to completion of your PGB qualification?

Chart 4.4.4 Number of years' experience



The average number of years' prior experience for those that have experience is 11.63, SD 8.2, n=46. I then explored the length of time that PGB had held their qualification, the thinking being that there may be performance differential between newly qualified PGB and PGB who had held the qualification for some time.

How many years have you held your PGB qualification?

Chart 4.4.5 Years PGB qualification held.



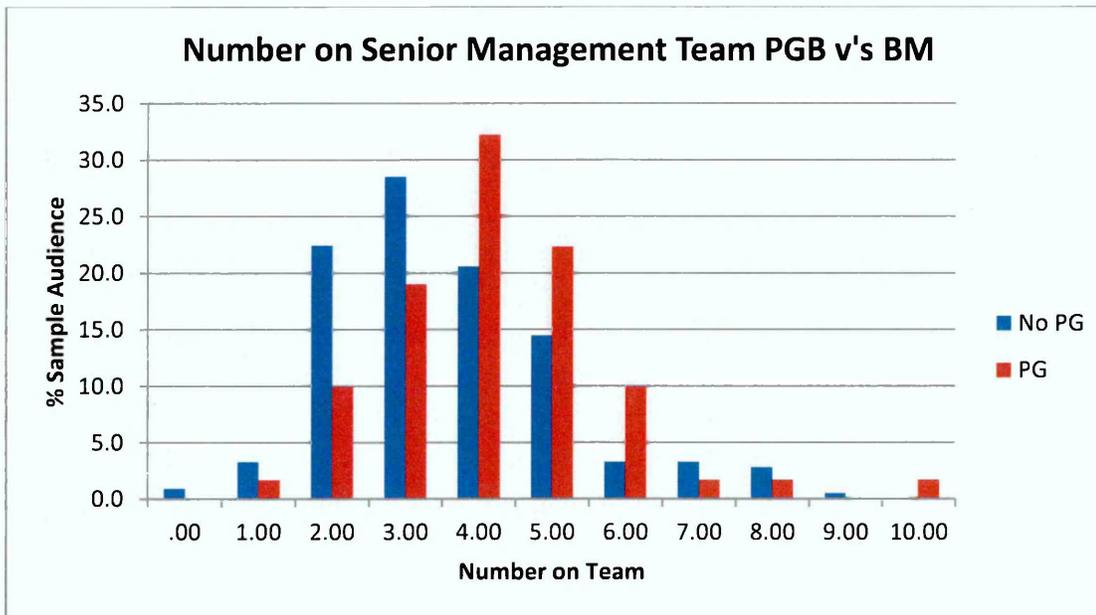
The average number of years that the qualification has been held is 18.5, SD = 11.2, n=55

This information was split into two groups; Group 1 have less than 10 years Post Graduate business management experience and Group 2 who have more than 10 years PGB management experience. The Mann Whitney U test was used to test for significance because the distribution of results is skewed, the Mann Whitney U test identifies that there is no significant difference between the 2 groups. Mann Whitney scores being 89 for Profit, 114.5 for Turnover and 298 for Employees, with respective p values of; 0.510, 0.459 and 0.778. Sample size n = 29, 33 and 50 respectively. Thus the null hypothesis is maintained, there is no difference between the 2 groups in respect to number of employees, turnover and profitability of the surveyed companies.

I then explored the size of the management team and the variables surrounding the two groups, my thinking was that perhaps the PGB managed teams are larger or smaller and if so does management team size have any effect at all on business growth.

How many people form part of the senior decision making team (senior management team or Directors)?

Chart 4.4.6 Number on Senior Management Team, with and without PGB



The histograms depict normal distributions, sample sizes are strong, the data is discrete. A Student t test was undertaken to compare whether the team sizes differ significantly between the two groups. PGB had more members in the senior management team (mean = 4.2, SD = 1.53) than in the BM group (mean = 3.6, SD = 1.61). The mean difference between conditions was 0.6. An independent t-test revealed that, if the null hypothesis were true, such a result would be highly unlikely to have arisen ($t = -3.5$, $DF = 331$, $p = .001$). It can be therefore concluded that management teams with PGB are larger in size. The null hypothesis is rejected. The number of PGB on the Management team was then explored further. I looked to see if there were different results in respect to numbers employed, turnover and profit dependent on the number of PGB employed in the management team, the teams were categorised into 2 groups, group one had 1 PGB on the team, group 2 had 2 or more PGB on the team. See tabulated data and summary below.

Table 4.4.6 Size of Management Team – Post Graduates

Analysis of Performance dependent on number of Business

PGB on the team

	Post grads 2 or more	N	Mean Rank
Ave Profit	less than 2	140	80.22
	2 or more	20	82.48
	Total	160	
Ave Turnover	less than 2	152	86.38
	2 or more	22	95.27
	Total	174	
Ave Employees	less than 2	313	173.16
	2 or more	42	214.05
	Total	355	

Number of Business Post Graduates V's Performance

Test Statistics

	Ave Profit	Ave Turnover	Ave Employees
Chi-Square	.042	.600	5.878
Df	1	1	1
Asymp. Sig.	.838	.439	.015

Kruskal Wallis Test

Grouping Variable: Postgrads 2 or more

On this occasion the Kruskal Wallace test was utilised to determine difference. Significant difference was found in respect to the number of employees with both turnover and profit not seeing a significant increase in mean ranks. The asymptotic significance is 0.015 in respect to the number of employees, this means that the significance is very close to 0 and that the results is way out in the tail of the test, therefore the null hypothesis can be discarded in respect to the number of employees, there is a significant difference between having 2 or more PGB on the management team as opposed to 1. The null hypothesis is maintained when the number of PGB is 2 or more when exploring revenue generation and profitability, denoting no significant difference between team size and business results in these two business metrics.

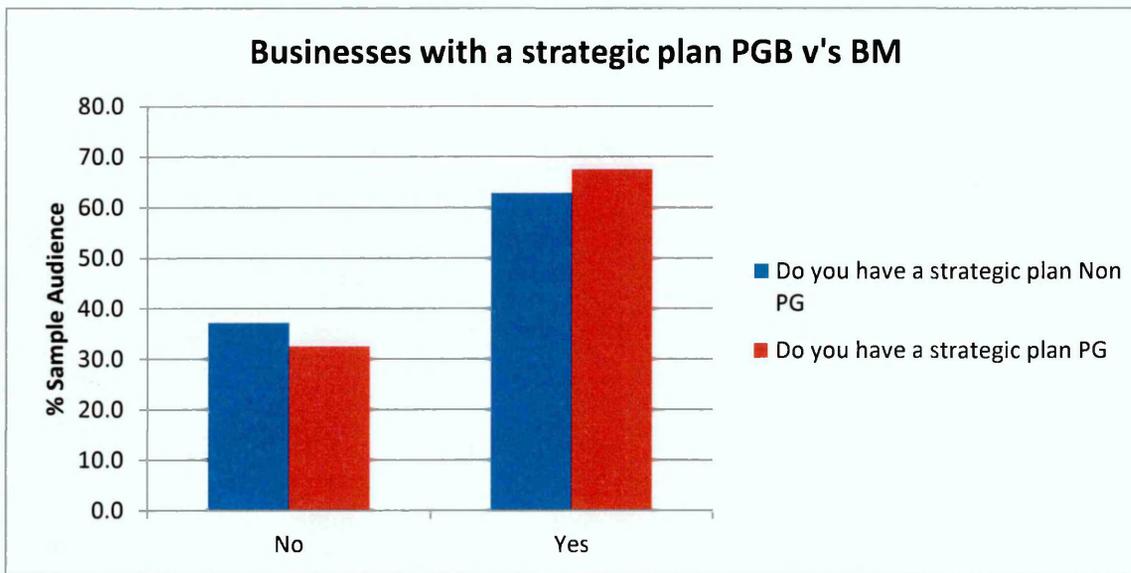
I now move on and start exploring the strategic element of the businesses, my thoughts being that the PGB will see things more strategically, bring more strategic tools and thought into the business and that this will improve business performance relating to growth.

4.5 Business Strategy

This section focuses on the strategic business tools employed within SMEs. In total 14 strategic business tools were explored. Histograms and Chi squared tests are shown below in respect to differences regards deployment of the specific strategic tool employed between businesses managed by teams with PGB in the team and BM in the team. The primary question relates to whether the business utilises the identified business tools. Furthermore, many of my ideas are based around the notion that deploying these known strategic business tools will result in improved growth, and that PGB will deploy more business tools, as has been identified within the literature; (Miles & Snow, 1978; Porter, 1980; Knight, 2000; King, 2007; Sunday, 2011). So with that in mind the second part of each question's analysis concentrates on exploring the relationship between each strategic tool deployed and business performance relating to growth. Performance analysis focuses on results attained using employee numbers, revenue turnover and profitability. It has been identified earlier that performance results are not normally distributed; therefore, the Mann Whitney test will be utilised in the analysis of the data. All fourteen business tools that formed part of the questionnaire will be analysed separately in the order in which they were asked. First stage analysis concentrates of differences between PGB and BM groups and utilisation of the strategic tool identified, second stage analysis concentrates on the net effect on results, differentiating results between users and non-users of the strategic tool identified.

Tool 1 Documented Strategic Plan

Chart 4.5.1 Businesses with and without a documented strategic plan, PGB v's BM



A 2x2 Pearson's Chi Squared test was carried out to discover whether there was a significant relationship between companies that had a documented strategic plan and whether the business was managed by a PGB or BM. The Chi squared value of .493 had an associated probability value of $p = .483$, DF 1, $n=362$. This result suggests it is extremely unlikely that there is a relationship between holding a PGB qualification and not in respect to having a documented strategic plan, the null hypothesis is therefore maintained on this occasion.

The second aspect to explore in relationship to strategic planning is the effect on business performance. The ranking tables below are designed to show whether having a strategic plan has any influence on the business metrics when comparing PGB and BM managed teams.

Table 4.5.1 A&B Ranking Results

4.5.1 A Ranking result

	Strategic Plan	N	Mean Rank	Sum of Ranks
Ave Turnover	No	63	67.79	4270.50
	Yes	105	94.53	9925.50
	Total	168		
Ave Profit	No	56	74.00	4144.00
	Yes	99	80.26	7946.00
	Total	155		
Ave Employees	No	81	92.48	7490.50
	Yes	149	128.02	19074.50
	Total	230		

4.5.1 B Ranking results ^a

	Ave Turnover	Ave profit	Ave Employees
Mann-Whitney U	2254.500	2548.000	4169.500
Wilcoxon W	4270.500	4144.000	7490.500
Z	-3.450	-.834	-3.869
Asymp. Sig. (2-tailed)	.001	.404	.000

a. Grouping Variable: Strategic Plan

Turnover; The Mann Whitney U test score of 2254.5 and mean rank comparisons of 67.8 BM and 94.5 PGB, with a Z score of -3.45, n = 168 and p = 0.001 (Asymp. Sig. (2-tailed) demonstrate the null hypothesis can be rejected and that there is a significant difference between the turnover of BM and PGB.

Profit; The Mann Whitney U test score of 2548 and mean rank comparisons of 74 BM and 80.3 PGB, with a Z score of -.834, n = 155 and p = 0.404 (Asymp. Sig. (2-tailed) demonstrate the null hypothesis can be maintained and that there is not a significant difference between the profit of BM and the PGB.

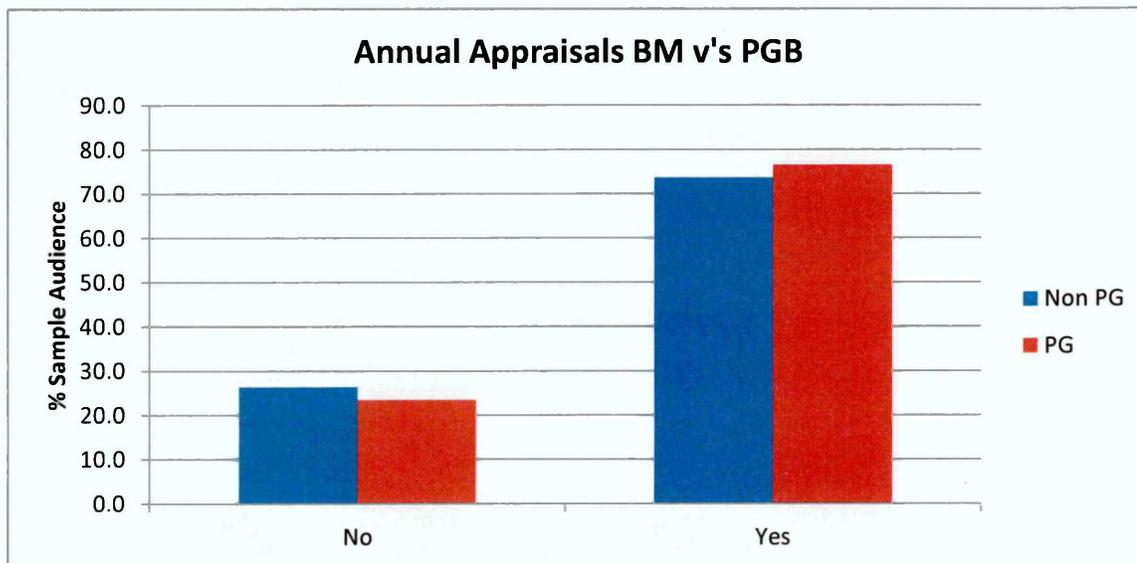
Employees; The Mann Whitney U test score of 4169.5 and mean rank comparisons of 92.5 BM and 128 PGB, with a Z score of -3.869, n = 230 and p = <0.001 (Asymp. Sig. (2-tailed) demonstrate the null hypothesis can be rejected and that there is a significant difference between the employee levels of BM and PGB.

Note the link between employees and revenue generation giving the same outcome regarding rejection of the null hypothesis, as was predicted following correlation analysis undertaken earlier.

The above results demonstrate that businesses that have a strategic plan and are managed by PGB out-perform businesses that have do not have a strategic plan and are managed by BM on two of the three business metrics, these being numbers employed and revenue generation.

Tool 2 Annual Appraisal for all staff

Chart 4.5.2 Businesses with and without staff annual appraisals, PGB v's BM



A 2x2 Pearson's Chi Squared test was carried out to discover whether there was a significant relationship between companies that undertook annual appraisals and whether the business was managed by a PGB or not. The Chi squared value of .232 had an associated probability value of $p = .630$, DF 1, $n=362$. This result suggests it is extremely unlikely that there is a relationship between holding a PGB qualification and not in respect to undertaking annual appraisals, the null hypothesis is therefore maintained on this occasion.

Table 4.5.2 A&B Ranking results

4.5.2 A Ranking Results

	Annual Appraisal	N	Mean Rank	Sum of Ranks
Ave Turnover	No	45	77.03	3466.50
	Yes	126	89.20	11239.50
	Total	171		
Ave Profit	No	40	73.65	2946.00
	Yes	116	80.17	9300.00
	Total	156		
Ave Employees	No	59	112.26	6623.50
	Yes	173	117.95	20404.50
	Total	232		

4.5.2 B Ranking Results ^a

	Ave Turnover	Ave profit	Ave Employees
Mann-Whitney U	2431.500	2126.000	4853.500
Wilcoxon W	3466.500	2946.000	6623.500
Z	-1.415	-.787	-.562
Asymp. Sig. (2-tailed)	.157	.431	.574

a. Grouping Variable: Annual Appraisal

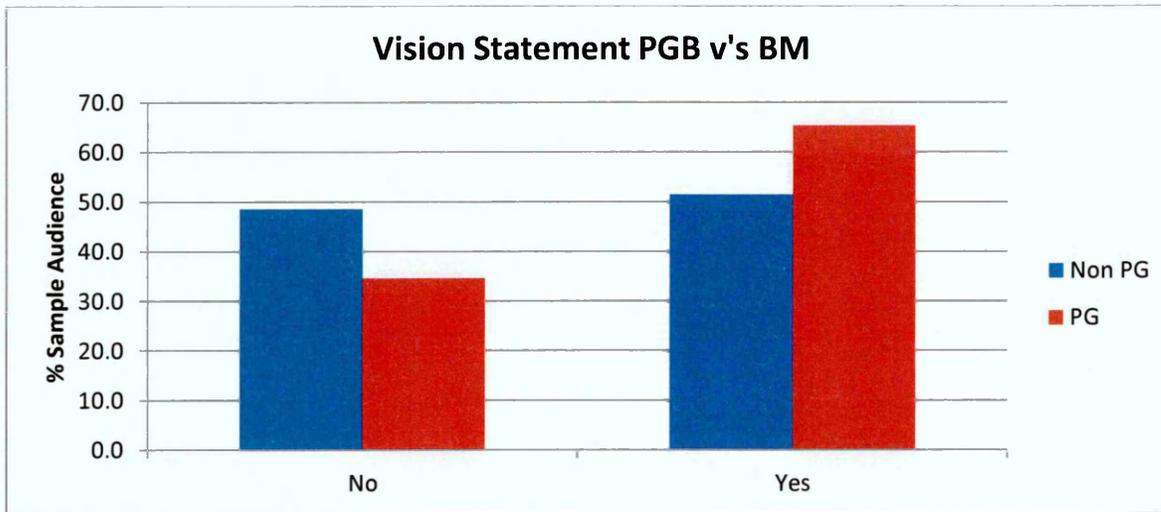
Turnover; The Mann Whitney U test score of 2431 and mean rank comparisons of 77 BM and 89.2 PGB, with a Z score of -1.2, n = 171 and p = 0.157 Asymp. Sig. (2-tailed) demonstrate the null hypothesis can be maintained and that there is not a significant difference between the turnover of BM and the PGB.

Profit; The Mann Whitney U test score of 2126 and mean rank comparisons of 73.6 BM and 80.2 PGB, with a Z score of -.787, n = 156 and p = 0.431 Asymp. Sig. (2-tailed) demonstrate the null hypothesis can be maintained and that there is not a significant difference between the profit of BM and the PGB.

Employees; The Mann Whitney U test score of 4853.5 and mean rank comparisons of 112.3 BM and 118 PGB, with a Z score of -0.562, n = 232 and p = 0.574 Asymp. Sig. (2-tailed) demonstrate the null hypothesis can be maintained and that there is not a significant difference between the employee levels of BM and the PGB.

Tool 3 Vision Statement

Chart 4.5.3 Businesses with and without a company Vision Statement, PGB v's BM



A 2x2 Pearson's Chi Squared test was carried out to discover whether there was a significant relationship between companies that had Vision Statements and whether the business was managed by a PGB holder or not. The Chi squared value of 3.96 had an associated probability value of $p = .046$, DF 1, $n=362$. The null hypothesis is discarded on this occasion, businesses that are managed by PGB are statistically more likely to have vision statements.

Table 4.5.3 A&B Ranking Results

4.5.3 A Ranking Results

	Vision Statement	N	Mean Rank	Sum of Ranks
Ave Turnover	No	72	76.70	5522.50
	Yes	90	85.34	7680.50
	Total	162		
Ave Profit	No	68	77.80	5290.50
	Yes	80	71.69	5735.50
	Total	148		
Ave Employees	No	96	104.72	10053.00
	Yes	125	115.82	14478.00
	Total	221		

4.5.3 B Ranking Results^a

	Ave Turnover	Ave profit	Ave Employees
Mann-Whitney U	2894.500	2495.500	5397.000
Wilcoxon W	5522.500	5735.500	10053.000
Z	-1.165	-.864	-1.280
Asymp. Sig. (2-tailed)	.244	.388	.201

a. Grouping Variable: Vision Statement

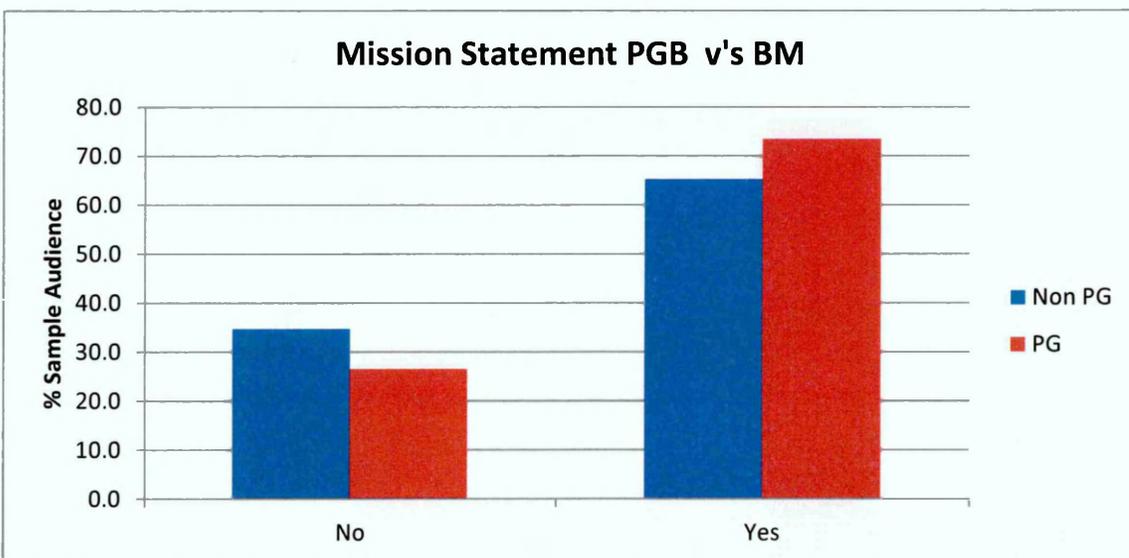
Turnover; The Mann Whitney U test score of 2894.5 and mean rank comparisons of 76. BM and 85.3 PGB, with a Z score of -1.2, n = 162 and p = 0.244 Asymp. Sig. (2-tailed) demonstrate the null hypothesis can be maintained and that there is not a significant difference between the turnover of BM and the PGB.

Profit; The Mann Whitney U test score of 2495.5 and mean rank comparisons of 77.8 BM and 71.7 PGB Team PGB, with a Z score of -.864, n = 148 and p = 0.388 Asymp. Sig. (2-tailed) demonstrate the null hypothesis can be maintained and that there is not a significant difference between the profit of BM and the PGB.

Employees; The Mann Whitney U test score of 5397 and mean rank comparisons of 104.7 BM and 115.8 PGB, with a Z score of -1.28, n = 221 and p = 0.201 Asymp. Sig. (2-tailed) demonstrate the null hypothesis can be maintained and that there is not a significant difference between the employee levels of BM and the PGB.

Tool 4 Mission Statement

Chart 4.5.4 Businesses with and without a company Mission Statement, PGB v's Non PGB



A 2x2 Pearson's Chi Squared test was carried out to discover whether there was a significant relationship between companies that had Mission Statements and whether the business was managed by a PGB holder or not. The Chi squared value of 1.56 had an associated probability value of $p = .212$, DF 1, $n=362$. This result suggests it is extremely unlikely that there is a relationship between holding a PGB qualification and not in respect to having a Mission Statement, the null hypothesis is therefore maintained on this occasion.

Table 4.5.4 A&B Ranking Results

4.5.4 A Ranking Results

	Mission Statement	N	Mean Rank	Sum of Ranks
Ave Turnover	No	56	78.14	4376.00
	Yes	110	86.23	9485.00
	Total	166		
Ave Profit	No	53	82.52	4373.50
	Yes	100	74.08	7407.50
	Total	153		
Ave Employees	No	72	111.00	7992.00
	Yes	154	114.67	17659.00
	Total	226		

4.5.4 B Ranking Results ^a

	Ave Turnover	Ave Profit	Ave Employees
Mann-Whitney U	2780.000	2357.500	5364.000
Wilcoxon W	4376.000	7407.500	7992.000
Z	-1.025	-1.122	-.393
Asymp. Sig. (2-tailed)	.306	.262	.694

a. Grouping Variable: Mission Statement

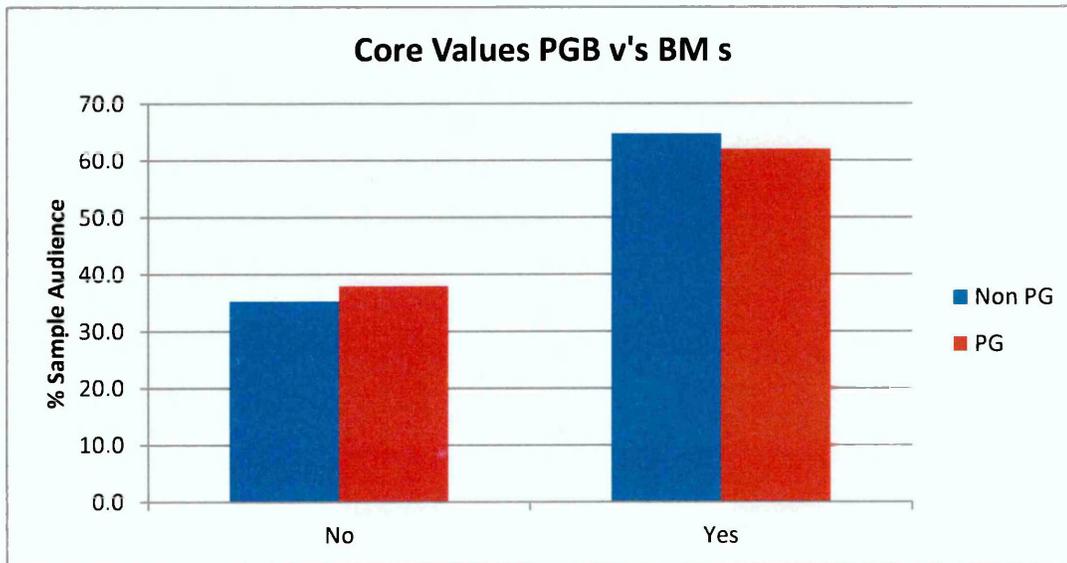
Turnover; The Mann Whitney U test score of 2780 and mean rank comparisons of 78.1 BM and 86.2 PGB, with a Z score of -1, $n = 166$ and $p = 0.306$ Asymp. Sig. (2-tailed) demonstrate the null hypothesis can be maintained and that there is not a significant difference between the turnover of BM and the PGB.

Profit; The Mann Whitney U test score of 2357.5 and mean rank comparisons of 82.5 BM and 74.1 PGB, with a Z score of -1.1, $n = 153$ and $p = 0.262$ Asymp. Sig. (2-tailed) demonstrate the null hypothesis can be maintained and that there is not a significant difference between the profit of BM and the PGB.

Employees; The Mann Whitney U test score of 5364 and mean rank comparisons of 111 BM and 114.6 PGB, with a Z score of -0.393 , $n = 226$ and $p = 0.694$ Asymp. Sig. (2-tailed) demonstrate the null hypothesis can be maintained and that there is not a significant difference between the employee levels of BM and the PGB.

Tool 5 Core Values

Chart 4.5.5 Businesses with and without Core Values PGB v's Non PGB



A 2x2 Pearson's Chi Squared test was carried out to discover whether there was a significant relationship between companies that had Core Values and whether the business was managed by a PGB holder or not. The Chi squared value of .155 had an associated probability value of $p = .693$, DF 1, $n=362$. The null hypothesis is maintained, there is no difference between holding a business Post Graduate qualification or not in respect to the business having core values.

Table 4.5.5 A&B Ranking Results

4.5.5 A Ranking Results

	Core Values	N	Mean Rank	Sum of Ranks
Ave Turnover	No	57	75.46	4301.00
	Yes	105	84.78	8902.00
	Total	162		
Ave Profit	No	54	74.19	4006.50
	Yes	94	74.68	7019.50
	Total	148		
Ave Employees	No	78	103.35	8061.50
	Yes	139	112.17	15591.50
	Total	217		

4.5.5 B Ranking Results ^a

	Ave Turnover	Ave Profit	Ave Employees
Mann-Whitney U	2648.000	2521.500	4980.500
Wilcoxon W	4301.000	4006.500	8061.500
Z	-1.208	-.066	-.993
Asymp. Sig. (2-tailed)	.227	.948	.321

a. Grouping Variable: Core Values

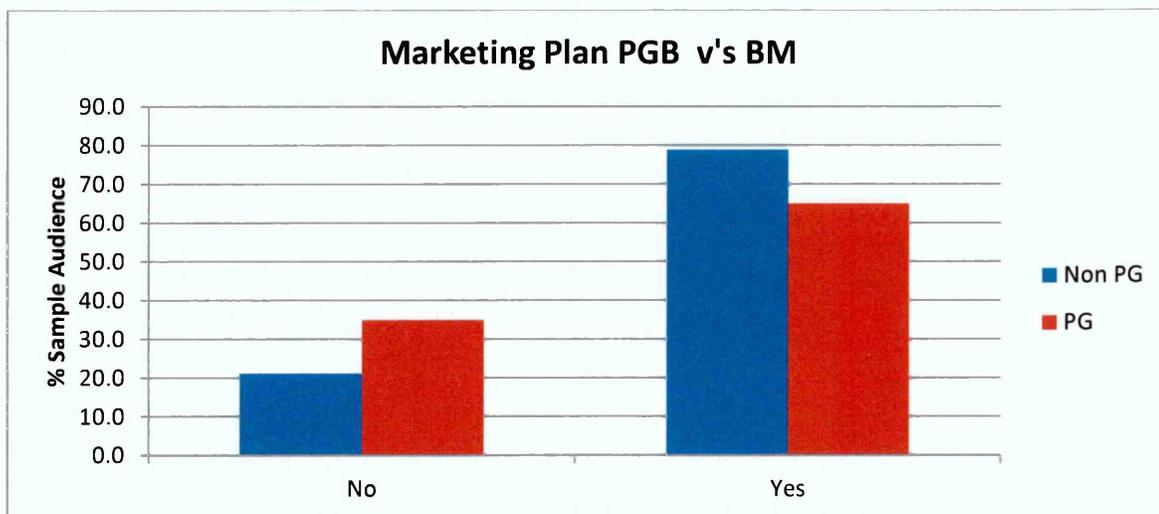
Turnover; The Mann Whitney U test score of 2648 and mean rank comparisons of 75.5. BM and 84.8 PGB, with a Z score of -1.2, n = 162 and p = 0.227 Asymp. Sig. (2-tailed) demonstrate the null hypothesis can be maintained and that there is not a significant difference between the turnover of BM and the PGB.

Profit; The Mann Whitney U test score of 2521.5 and mean rank comparisons of 74.2 BM and 74.7 PGB, with a Z score of -.07, n = 148 and p = 0.948 Asymp. Sig. (2-tailed) demonstrate the null hypothesis can be maintained and that there is not a significant difference between the profit of BM and the PGB.

Employees; The Mann Whitney U test score of 4980.5 and mean rank comparisons of 103.4 BM and 112.2 PGB, with a Z score of -.993, n = 217 and p = 0.321 Asymp. Sig. (2-tailed) demonstrate the null hypothesis can be maintained and that there is not a significant difference between the employee levels of BM and the PGB.

Tool 6 Marketing Plan

Chart 4.5.6 Businesses with and without a Marketing Plan, PGB v's Non PGB



A 2x2 Pearson's Chi Squared test was carried out to discover whether there was a significant relationship between companies that had a Marketing Plan and whether the business was managed by a PGB holder or not. The Chi squared value of 5.1 had an associated probability value of $p = .024$, DF 1, $n=362$. The null hypothesis is discarded on this occasion, businesses that are managed by PGB are statistically more likely to have a marketing plan.

Table 4.5.6 A&B Ranking Results

4.5.6 A Ranking Results

	Marketing Plan	N	Mean Rank	Sum of Ranks
Ave Turnover	No	40	76.99	3079.50
	Yes	126	85.57	10781.50
	Total	166		
Ave Profit	No	38	76.28	2898.50
	Yes	113	75.91	8577.50
	Total	151		
Ave Employees	No	58	109.49	6350.50
	Yes	166	113.55	18849.50
	Total	224		

4.5.6 B Ranking Results ^a

	Ave Turnover	Ave Profit	Ave Employees
Mann-Whitney U	2259.500	2136.500	4639.500
Wilcoxon W	3079.500	8577.500	6350.500
Z	-.984	-.045	-.411
Asymp. Sig. (2-tailed)	.325	.964	.681

a. Grouping Variable: Marketing Plan

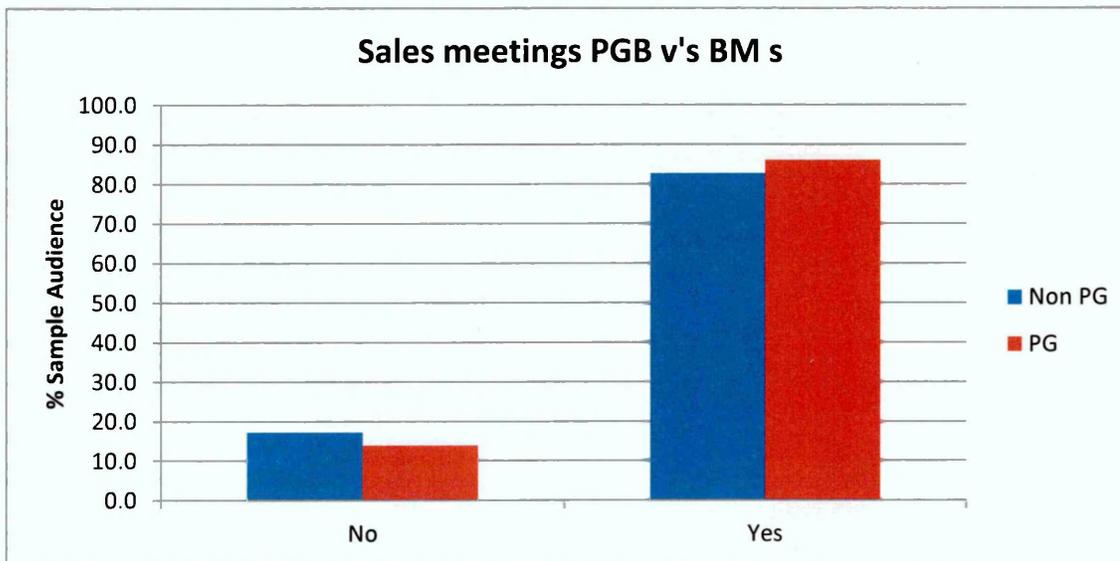
Turnover; The Mann Whitney U test score of 2259.5 and mean rank comparisons of 77 BM and 85.6 PGB, with a Z score of -0.98, n = 166 and p = 0.325 Asymp. Sig. (2-tailed) demonstrate the null hypothesis can be maintained and that there is not a significant difference between the turnover of BM and the PGB.

Profit: The Mann Whitney U test score of 2136.5 and mean rank comparisons of 76.3 BM and 75.9 PGB, with a Z score of -.05, n = 151 and p = 0.964 Asymp. Sig. (2-tailed) demonstrate the null hypothesis can be maintained and that there is not a significant difference between the profit of BM and the PGB.

Employees: The Mann Whitney U test score of 4639.5 and mean rank comparisons of 109.5 BM and 113.5 PGB, with a Z score of -.411, n = 224 and p = 0.681 Asymp. Sig. (2-tailed) demonstrate the null hypothesis can be maintained and that there is not a significant difference between the employee levels of BM and the PGB.

Tool 7 Sales Meetings

Chart 4.5.7 Businesses that do and do not hold sales meetings, PGB v's Non PGB



A 2x2 Pearson's Chi Squared test was carried out to discover whether there was a significant relationship between companies that held Sales Meetings and whether the business was managed by a PGB holder or not. The Chi squared value of .417 had an associated probability value of $p = .518$, DF 1, $n=362$. This result suggests it is extremely unlikely that there is a relationship between holding a PGB qualification and not in respect to having a Sales Meetings, the null hypothesis is therefore maintained on this occasion.

Table 4.5.7 Sales Meetings

4.5.7 A Ranking Scores

	Sales Meetings	N	Mean Rank	Sum of Ranks
Ave Turnover	No	22	54.57	1200.50
	Yes	144	87.92	12660.50
	Total	166		
Ave Profit	No	18	67.44	1214.00
	Yes	135	78.27	10567.00
	Total	153		
Ave Employees	No	36	80.31	2891.00
	Yes	191	120.35	22987.00
	Total	227		

4.5.7 B Ranking Scores ^a

	Ave Turnover	Ave Profit	Ave Employees
Mann-Whitney U	947.500	1043.000	2225.000
Wilcoxon W	1200.500	1214.000	2891.000
Z	-3.031	-.974	-3.356
Asymp. Sig. (2-tailed)	.002	.330	.001

a. Grouping Variable: Sales Meetings

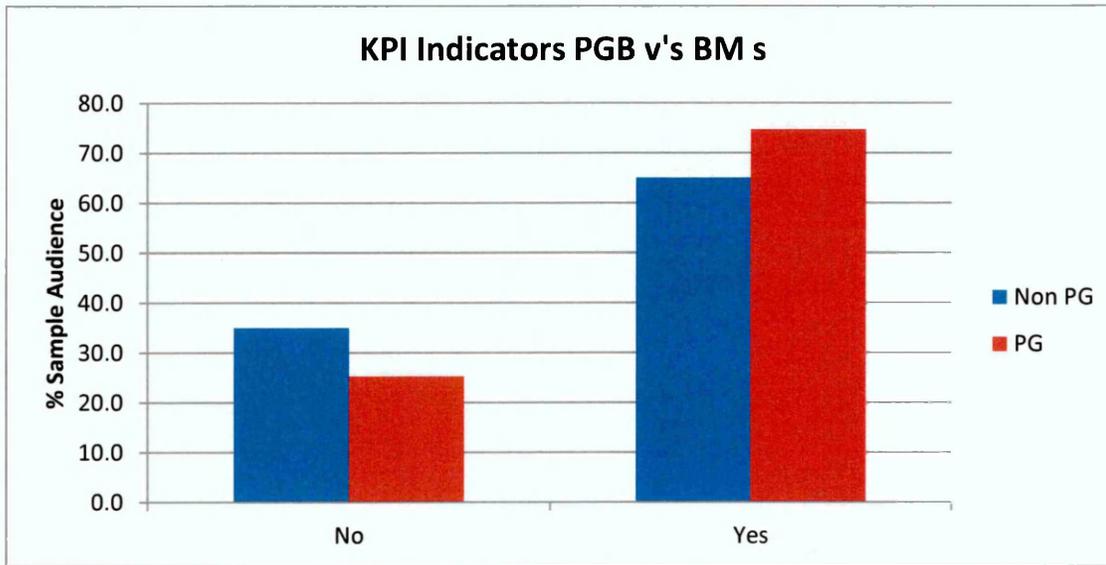
Turnover; The Mann Whitney U test score of 947.5 and mean rank comparisons of 54.6. BM and 87.9 PGB, with a Z score of -3.03, n = 166 and p = 0.002 Asymp. Sig. (2-tailed) demonstrate the null hypothesis can be rejected and that there is a significant difference between the turnover of BM and the PGB.

Profit; The Mann Whitney U test score of 1043 and mean rank comparisons of 67.4 BM and 78.3 PGB, with a Z score of -.974, n = 153 and p = 0.330 Asymp. Sig. (2-tailed) demonstrate the null hypothesis can be maintained and that there is not a significant difference between the profit of BM and the PGB.

Employees; The Mann Whitney U test score of 2225 and mean rank comparisons of 80.3 BM and 120.4 PGB, with a Z score of -3.36, n = 227 and p = 0.001 Asymp. Sig. (2-tailed) demonstrate the null hypothesis can be rejected and that there is a significant difference between the employee levels of BM and the PGB.

Tool 8 KPI Indicators

Chart 4.5.8 Businesses that do and do not utilise KPI indicators , PGB v's BM



A 2x2 Pearson's Chi Squared test was carried out to discover whether there was a significant relationship between companies that utilised KPI Indicators and whether the business was managed by a PGB holder or not. The Chi squared value of 2.194 had an associated probability value of $p = .139$, DF 1, $n=362$. This result suggests it is extremely unlikely that there is a relationship between holding a PGB qualification and not in respect to utilising KPI, the null hypothesis is therefore maintained on this occasion.

Table 4.5.8 A&B Ranking Results

4.5.8 A Ranking Results

	KPI Indicators	N	Mean Rank	Sum of Ranks
Ave Turnover	No	48	58.18	2792.50
	Yes	116	92.56	10737.50
	Total	164		
Ave Profit	No	42	59.69	2507.00
	Yes	109	82.28	8969.00
	Total	151		
Ave Employees	No	69	81.61	5631.00
	Yes	152	124.34	18900.00
	Total	221		

4.5.8 B Ranking Results ^a

	Ave Turnover	Ave Profit	Ave Employees
Mann-Whitney U	1616.500	1604.000	3216.000
Wilcoxon W	2792.500	2507.000	5631.000
Z	-4.220	-2.845	-4.604
Asymp. Sig. (2-tailed)	.000	.004	.000

a. Grouping Variable: KPI Indicators

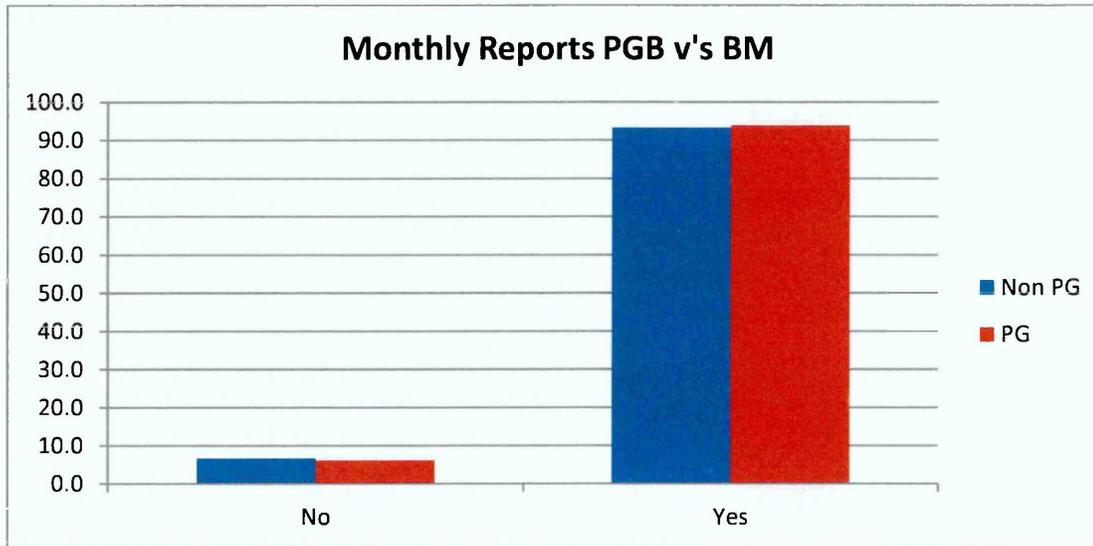
Turnover; The Mann Whitney U test score of 1616.5 and mean rank comparisons of 58.2 BM Team and 92.6 PGB, with a Z score of -4.22, n = 164 and p = <0.001 Asymp. Sig. (2-tailed) demonstrate the null hypothesis can be rejected and that there is a significant difference between the turnover of BM and the PGB.

Profit; The Mann Whitney U test score of 1604 and mean rank comparisons of 59.7 BM and 82.3 PGB, with a Z score of -2.85, n = 151 and p = 0.004 Asymp. Sig. (2-tailed) demonstrate the null hypothesis can be rejected and that there is a significant difference between the profit of BM and the PGB.

Employees; The Mann Whitney U test score of 3216 and mean rank comparisons of 81.6 BM and 124.3 PGB, with a Z score of -4.6, n = 221 and p = <0.001 Asymp. Sig. (2-tailed) demonstrate the null hypothesis can be rejected and that there is a significant difference between the employee levels of BM and the PGB.

Tool 9 Monthly Reports

Chart 4.5.9 Businesses that do and do not utilise Monthly Reports , PGB v's BM



A 2x2 Pearson's Chi Squared test was carried out to discover whether there was a significant relationship between companies that utilised Monthly Reports and whether the business was managed by a PGB holder or not. The Chi squared value of .025 had an associated probability value of $p = .874$, DF 1, $n=362$. This result suggests it is extremely unlikely that there is a relationship between holding a PGB qualification and not in respect to utilising Monthly Reports, the null hypothesis is therefore maintained on this occasion.

Table 4.5.9 A&B Ranking Results

4.5.9 A Ranking Results

	Monthly Reports	N	Mean Rank	Sum of Ranks
Ave Turnover	No	12	64.46	773.50
	Yes	159	87.63	13932.50
	Total	171		
Ave Profit	No	11	72.27	795.00
	Yes	146	79.51	11608.00
	Total	157		
Ave Employees	No	15	76.77	1151.50
	Yes	218	119.77	26109.50
	Total	233		

4.5.9 B Ranking Results ^a

	Ave Turnover	Ave Profit	Ave Employees
Mann-Whitney U	695.500	729.000	1031.500
Wilcoxon W	773.500	795.000	1151.500
Z	-1.563	-.509	-2.390
Asymp. Sig. (2-tailed)	.118	.611	.017

a. Grouping Variable: Monthly Reports

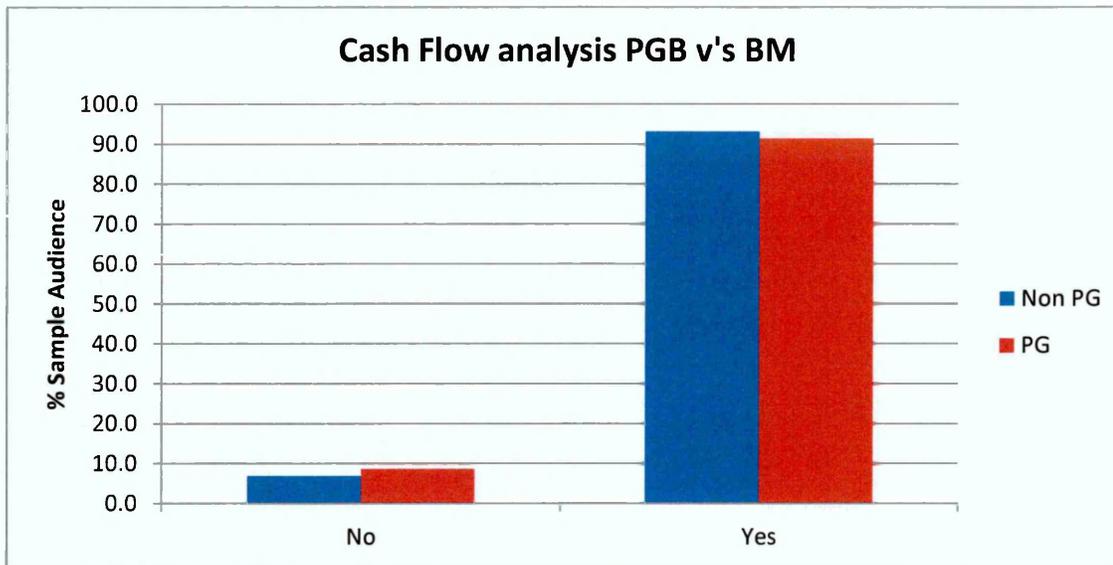
Turnover; The Mann Whitney U test score of 695.5 and mean rank comparisons of 64.5 BM and 87.6 PGB, with a Z score of -1.56, n = 171 and p = 0.118 Asymp. Sig. (2-tailed) demonstrate the null hypothesis can be maintained and that there is not a significant difference between the turnover of BM and the PGB.

Profit; The Mann Whitney U test score of 729 and mean rank comparisons of 79.3 BM and 79.5 PGB, with a Z score of -.509, n = 157 and p = 0.611 Asymp. Sig. (2-tailed) demonstrate the null hypothesis can be maintained and that there is not a significant difference between the profit of BM and the PGB.

Employees; The Mann Whitney U test score of 1031.5 and mean rank comparisons of 76.8 BM and 119.8 PGB, with a Z score of -2.39, n = 233 and p = 0.017 Asymp. Sig. (2-tailed) demonstrate the null hypothesis can be rejected and that there is a significant difference between the employee levels of BM and the PGB.

Tool 10 Cash Flow Analysis

Chart 4.5.10 Businesses that do and do not utilise cash flow analysis , PGB v's BM



A 2x2 Pearson's Chi Squared test was carried out to discover whether there was a significant relationship between companies that utilised Cash Flow Analysis and whether the business was managed by a PGB holder or not. The Chi squared value of .242 had an associated probability value of $p = .623$, DF 1, $n=362$. This result suggests it is extremely unlikely that there is a relationship between holding a PGB qualification and not in respect to utilising Cash Flow Analysis, the null hypothesis is therefore maintained on this occasion.

Table 4.5.10 A&B Ranking Results

4.5.10 A Ranking Results

	Cash Flow Anal	N	Mean Rank	Sum of Ranks
Ave Turnover	No	10	74.25	742.50
	Yes	159	85.68	13622.50
	Total	169		
Ave Profit	No	9	77.11	694.00
	Yes	146	78.05	11396.00
	Total	155		
Ave Employees	No	17	94.03	1598.50
	Yes	213	117.21	24966.50
	Total	230		

4.5.10 B Ranking Results ^a

	Ave Turnover	Ave Profit	Ave Employees
Mann-Whitney U	687.500	649.000	1445.500
Wilcoxon W	742.500	694.000	1598.500
Z	-.716	-.061	-1.383
Asymp. Sig. (2-tailed)	.474	.951	.167

a. Grouping Variable: Cash Flow Analysis

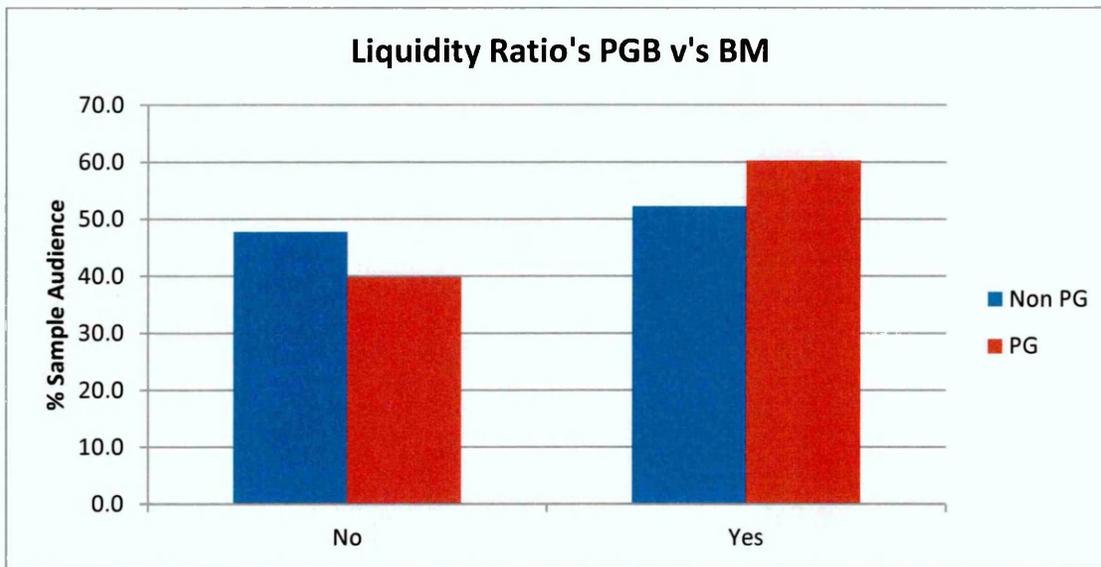
Turnover; The Mann Whitney U test score of 687.5 and mean rank comparisons of 74.3 and 85.7 PGB, with a Z score of -0.72 n = 169 and p = 0.474 Asymp. Sig. (2-tailed) demonstrate the null hypothesis can be maintained and that there is not a significant difference between the turnover of BM and the PGB.

Profit; The Mann Whitney U test score of 649 and mean rank comparisons of 77. BM and 78.05 PGB, with a Z score of -.061, n = 155 and p = 0.951 Asymp. Sig. (2-tailed) demonstrate the null hypothesis can be maintained and that there is not a significant difference between the profit of BM and the PGB.

Employees; The Mann Whitney U test score of 1445.5 and mean rank comparisons of 94.03 BM and 117.21 PGB, with a Z score of -1.383, n = 230 and p = 0.167 Asymp. Sig. (2-tailed) demonstrate the null hypothesis can be maintained and that there is not a significant difference between the employee levels of BM and the PGB.

Tool 11 Liquidity Ratio

Chart 4.5.11 Businesses that do and do not utilise liquidity ratios , PGB v's BM



A 2x2 Pearson's Chi Squared test was carried out to discover whether there was a significant relationship between companies that utilised Liquidity Ratio's and whether the business was managed by a PGB holder or not. The Chi squared value of 1.281 had an associated probability value of $p = .258$, DF 1, $n=362$. This result suggests it is extremely unlikely that there is a relationship between holding a PGB qualification and not in respect to utilising Liquidity Ratio's, the null hypothesis is therefore maintained on this occasion.

Table 4.5.11 A&B Ranking Results

4.5.11 A Ranking Results

	Liquidity Ratios	N	Mean Rank	Sum of Ranks
Ave Turnover	No	65	71.20	4628.00
	Yes	95	86.86	8252.00
	Total	160		
Ave Profit	No	59	73.98	4365.00
	Yes	89	74.84	6661.00
	Total	148		
Ave Employees	No	95	95.35	9058.50
	Yes	119	117.20	13946.50
	Total	214		

4.5.11 B Ranking Results ^a

	Ave Turnover	Ave Profit	Ave Employees
Mann-Whitney U	2483.000	2595.000	4498.500
Wilcoxon W	4628.000	4365.000	9058.500
Z	-2.100	-.119	-2.564
Asymp. Sig. (2-tailed)	.036	.905	.010

a. Grouping Variable: Liquidity Ratios

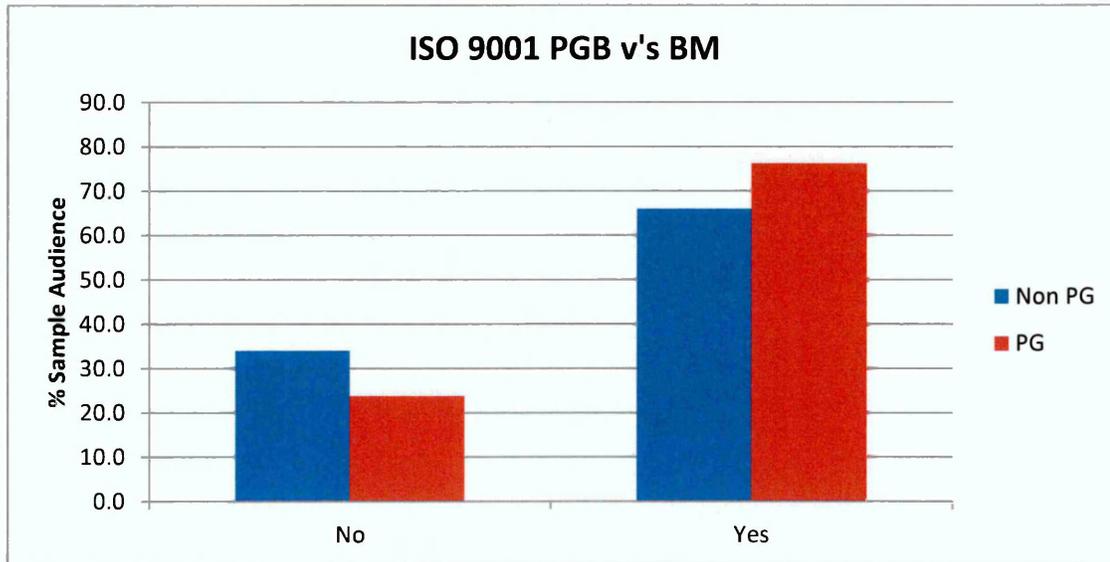
Turnover; The Mann Whitney U test score of 2483 and mean rank comparisons of 71.2 BM and 86.9 PGB, with a Z score of -2.1 $n = 160$ and $p = 0.036$ Asymp. Sig. (2-tailed) demonstrate the null hypothesis can be rejected and that there is a significant difference between the turnover of BM and the PGB.

Profit; The Mann Whitney U test score of 2595 and mean rank comparisons of 74 BM and 74.9 PGB, with a Z score of $-.119$, $n = 148$ and $p = 0.905$ Asymp. Sig. (2-tailed) demonstrate the null hypothesis can be maintained and that there is not a significant difference between the profit of BM and the PGB.

Employees; The Mann Whitney U test score of 4498.5 and mean rank comparisons of 95.35 BM and 117.21 PGB, with a Z score of -2.564 , $n = 214$ and $p = 0.010$ Asymp. Sig. (2-tailed) demonstrate the null hypothesis can be rejected and that there is a significant difference between the employee levels of BM and the PGB.

Tool 12 ISO 9001

Chart 4.5.12 Businesses that do and do not utilise ISO 9001, PGB v's Non PGB



A 2x2 Pearson's Chi Squared test was carried out to discover whether there was a significant relationship between companies that utilised ISO 9001 and whether the business was managed by a PGB holder or not. The Chi squared value of 2.559 had an associated probability value of $p = .110$, DF 1, $n=362$. This result suggests it is extremely unlikely that there is a relationship between holding a PGB qualification and not in respect to utilising ISO 9001, the null hypothesis is therefore maintained on this occasion.

Table 4.5.12 A&B Ranking results

4.5.12 A Ranking Results

	ISO9001	N	Mean Rank	Sum of Ranks
Ave Turnover	No	51	63.40	3233.50
	Yes	114	91.77	10461.50
	Total	165		
Ave Profit	No	44	65.88	2898.50
	Yes	108	80.83	8729.50
	Total	152		
Ave Employees	No	68	83.51	5678.50
	Yes	156	125.14	19521.50
	Total	224		

4.5.12 B Ranking Results ^a

	Ave Turnover	Ave Profit	Ave Employees
Mann-Whitney U	1907.500	1908.500	3332.500
Wilcoxon W	3233.500	2898.500	5678.500
Z	-3.524	-1.899	-4.421
Asymp. Sig. (2-tailed)	.000	.058	.000

a. Grouping Variable: ISO9001

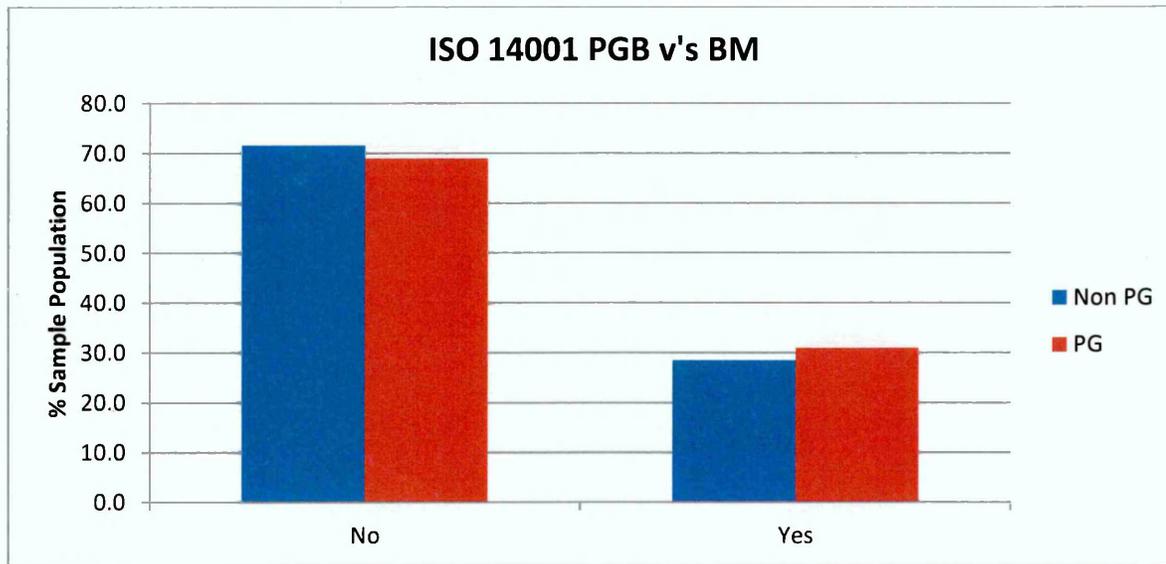
Turnover; The Mann Whitney U test score of 1907.5 and mean rank comparisons of 63.4 BM and 91.77 PGB, with a Z score of -3.53 $n = 165$ and $p = <0.001$ Asymp. Sig. (2-tailed) demonstrate the null hypothesis can be rejected and that there is a significant difference between the turnover of BM and the PGB.

Profit; The Mann Whitney U test score of 1908.5 and mean rank comparisons of 65.88 BM and 80.83 PGB, with a Z score of -1.9 , $n = 152$ and $p = 0.058$ Asymp. Sig. (2-tailed) demonstrate the null hypothesis can be maintained and that there is not a significant difference between the profit of BM and the PGB.

Employees; The Mann Whitney U test score of 3332.5 and mean rank comparisons of 83.51 BM and 125.14 PGB, with a Z score of -4.42 , $n = 224$ and $p = <0.001$ Asymp. Sig. (2-tailed) demonstrate the null hypothesis can be rejected and that there is a significant difference between the employee levels of BM and the PGB.

Tool 13 ISO 14001

Chart 4.5.13 Businesses that do and do not utilise ISO 14001, PGB v's BM



A 2x2 Pearson's Chi Squared test was carried out to discover whether there was a significant relationship between companies that utilised ISO 14001 and whether the business was managed by a PGB holder or not. The Chi squared value of .139 had an associated probability value of $p = .709$, DF 1, $n=362$. This result suggests it is extremely unlikely that there is a relationship between holding a PGB qualification and not in respect to utilising ISO 14001, the null hypothesis is therefore maintained on this occasion.

Table 4.5.13 A&B Ranking Results

4.5.13 A Ranking Results

	ISO14001	N	Mean Rank	Sum of Ranks
Ave Turnover	No	105	65.75	6904.00
	Yes	44	97.07	4271.00
	Total	149		
Ave Profit	No	94	67.37	6332.50
	Yes	43	72.57	3120.50
	Total	137		
Ave Employees	No	139	85.71	11914.00
	Yes	58	130.84	7589.00
	Total	197		

4.5.13 B Ranking Results ^a

	Ave Turnover	Ave Profit	Ave Employees
Mann-Whitney U	1339.000	1867.500	2184.000
Wilcoxon W	6904.000	6332.500	11914.000
Z	-4.041	-.712	-5.064
Asymp. Sig. (2-tailed)	.000	.476	.000

a. Grouping Variable: ISO14001

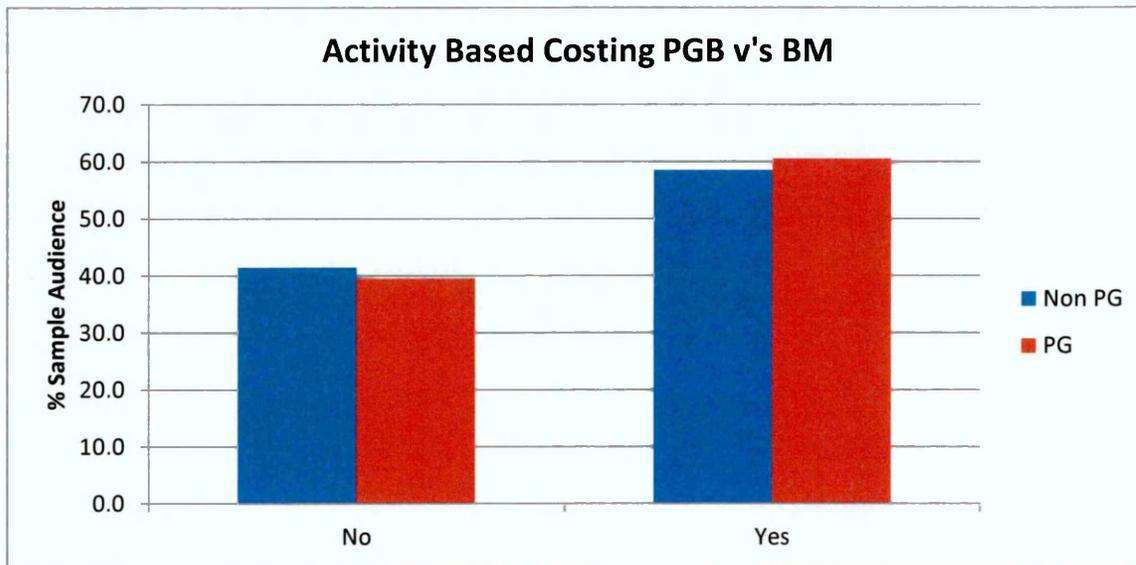
Turnover; The Mann Whitney U test score of 1339 and mean rank comparisons of 65.75 BM and 97.07 PGB, with a Z score of -4.04 $n = 149$ and $p = <0.001$ Asymp. Sig. (2-tailed) demonstrate the null hypothesis can be rejected and that there is a significant difference between the turnover of BM and the PGB.

Profit; The Mann Whitney U test score of 1867.5 and mean rank comparisons of 67.37 BM and 72.57 PGB, with a Z score of -0.712 , $n = 137$ and $p = 0.476$ Asymp. Sig. (2-tailed) demonstrate the null hypothesis can be maintained and that there is not a significant difference between the profit of BM and the PGB.

Employees; The Mann Whitney U test score of 2184 and mean rank comparisons of 85.71 BM and 130.84 PGB, with a Z score of -5.06 , $n = 197$ and $p = <0.001$ Asymp. Sig. (2-tailed) demonstrate the null hypothesis can be rejected and that there is a significant difference between the employee levels of BM and the PGB.

Tool 14 Activity Based Costing

Chart 4.5.14 Businesses that do and do not utilise Activity Based Costing, PGB v's BM



A 2x2 Pearson's Chi Squared test was carried out to discover whether there was a significant relationship between companies that utilised Activity Based Costing (ABC) and whether the business was managed by a PGB holder or not. The Chi squared value of .081 had an associated probability value of $p = .776$, DF 1, $n=362$. This result suggests it is extremely unlikely that there is a relationship between holding a PGB qualification and not in respect to utilising ABC, the null hypothesis is therefore maintained on this occasion.

Table 4.5.14 A&B Ranking Results

4.5.14 A Ranking Results

	Activity Based Costing	N	Mean Rank	Sum of Ranks
Ave Turnover	No	67	70.67	4735.00
	Yes	92	86.79	7985.00
	Total	159		
Ave Profit	No	61	70.85	4322.00
	Yes	87	77.06	6704.00
	Total	148		
Ave Employees	No	87	94.89	8255.00
	Yes	126	115.37	14536.00
	Total	213		

4.5.14 B Ranking Results ^a

	Ave Turnover	Ave Profit	Ave Employees
Mann-Whitney U	2457.000	2431.000	4427.000
Wilcoxon W	4735.000	4322.000	8255.000
Z	-2.180	-.867	-2.384
Asymp. Sig. (2-tailed)	.029	.386	.017

a. Grouping Variable: Activity Based Costing

Turnover; The Mann Whitney U test score of 2457 and mean rank comparisons of 70.7 BM and 86.8 PGB, with a Z score of -2.18 $n = 159$ and $p = 0.029$ Asymp. Sig. (2-tailed) demonstrate the null hypothesis can be rejected and that there is a significant difference between the turnover of BM and the PGB.

Profit; The Mann Whitney U test score of 2431 and mean rank comparisons of 70.85 BM and 77.06 PGB, with a Z score of -0.867 , $n = 148$ and $p = 0.386$ Asymp. Sig. (2-tailed) demonstrate the null hypothesis can be maintained and that there is not a significant difference between the profit of BM and the PGB.

Employees; The Mann Whitney U test score of 4427 and mean rank comparisons of 94.89 BM and 115.37 PGB, with a Z score of -2.38 , $n = 213$ and $p = 0.017$ Asymp. Sig. (2-tailed) demonstrate the null hypothesis can be rejected and that there is a significant difference between the employee levels of BM and the PGB.

4.6 Summary of Tools employed

To recap, the literature identifies that business strategy and the use of strategic tools can influence business growth. Exploring these fourteen strategic business tools enables me to better understand at least two things; do PGB use strategic business tools more than non-PGB and is there a correlation between the deployment of the strategic tools and numbers employed, revenue generation or profitability. By utilising a chart, I can see instantly whether there is a broad spread of difference between the tool employed and growth in relationship to; turnover, profit and number of employees. The table below demonstrates whether the null hypothesis is maintained or rejected. If the null hypothesis is maintained then there is no difference in respect to business growth on the measure identified and deployment of the said business tool, if the null hypothesis is rejected then there is significant statistical difference in results via the deployment of the said tool.

The fourteen tools employed have been analysed utilising the Mann Whitney U Test. The table below summarises the results by indicating whether the null hypothesis is maintained or rejected in respect to increase turnover, profit and number of employees.

Table 4.6 Summary of results for tools employed v'growth performance measures

	Turnover	Profit	Employees
Strategic Plan	<i>Rejected</i>	<i>Accepted</i>	<i>Rejected</i>
Annual Appraisal	<i>Accepted</i>	<i>Accepted</i>	<i>Accepted</i>
Vision Statement	<i>Accepted</i>	<i>Accepted</i>	<i>Accepted</i>
Mission Statement	<i>Accepted</i>	<i>Accepted</i>	<i>Accepted</i>
Core Values	<i>Accepted</i>	<i>Accepted</i>	<i>Accepted</i>
Marketing Plan	<i>Accepted</i>	<i>Accepted</i>	<i>Accepted</i>
Sales Meetings	<i>Rejected</i>	<i>Accepted</i>	<i>Rejected</i>
KPI Indicators	<i>Rejected</i>	<i>Rejected</i>	<i>Rejected</i>
Monthly reports	<i>Accepted</i>	<i>Accepted</i>	<i>Rejected</i>
Cash Flow Analysis	<i>Accepted</i>	<i>Accepted</i>	<i>Accepted</i>
Liquidity Ratios	<i>Rejected</i>	<i>Accepted</i>	<i>Rejected</i>
ISO 9001	<i>Rejected</i>	<i>Accepted</i>	<i>Rejected</i>
ISO 14001	<i>Rejected</i>	<i>Accepted</i>	<i>Rejected</i>
Activity Based Costing	<i>Rejected</i>	<i>Accepted</i>	<i>Rejected</i>

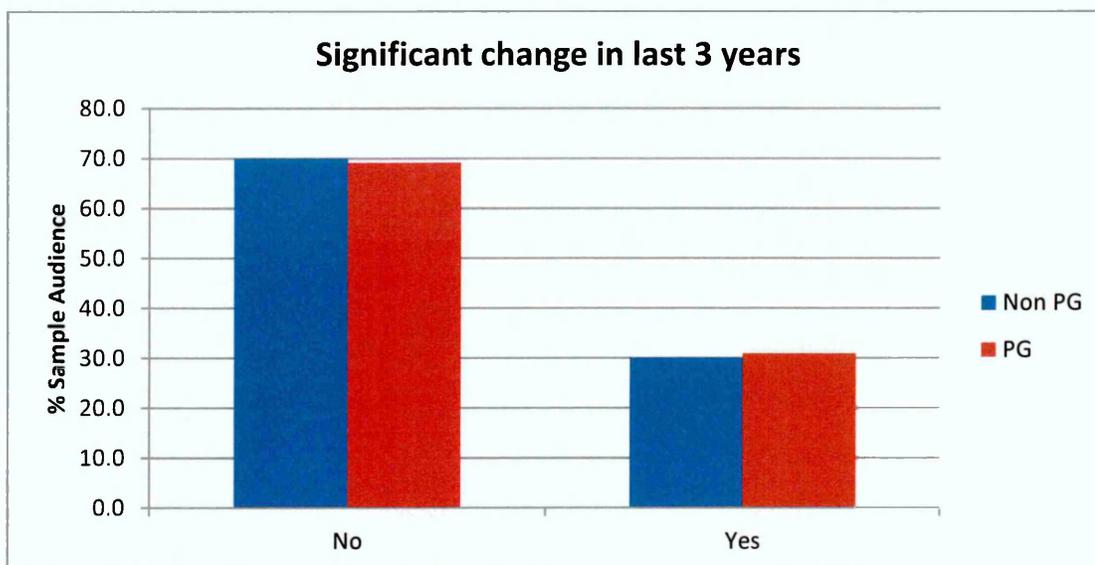
In general, the theory of Revenue generation (Turnover) and Numbers employed having a strong correlation has been maintained. In all but one question when the null hypothesis was rejected in the turnover aspect, it was then rejected in the number of employee's aspect also. Once again there appears to be little in terms of correlation between numbers employed and revenue generation when compared against profit, this further supports all the previous data findings. There was no significance difference found of any relevance in terms of strategic tool use and whether the business was managed by PGB or not. The use of the strategic tools is similar between the two groups. Results demonstrate that some business tools have a significant result on business performance; strategic plan, Sales meetings, KPI indicators, Liquidity ratios, ISO 9001 & 14001 and activity based costing all significantly contribute to enhanced business performance. This is discussed further in the following chapter.

Moving on to the next question now, I continue to explore difference and variability. One aspect that could have a profound effect on business growth is that of significant change, with that in mind I explore this characteristic further.

4.7 Significant Change

In order to separate out any erroneous results specific to significant recent change and the PGB manager employed, I looked to see if businesses that were managed by PGB were more likely to realise such change i.e. takeover/acquisition/new market entry and so I ask the question; Has your business been subject to any significant changes over the last 3 years that has had a direct result on net growth (Takeover, Acquisition, New market entry)?

Chart 4.7.1 Businesses that have undergone significant changes in last 3 years, PGB v's BM



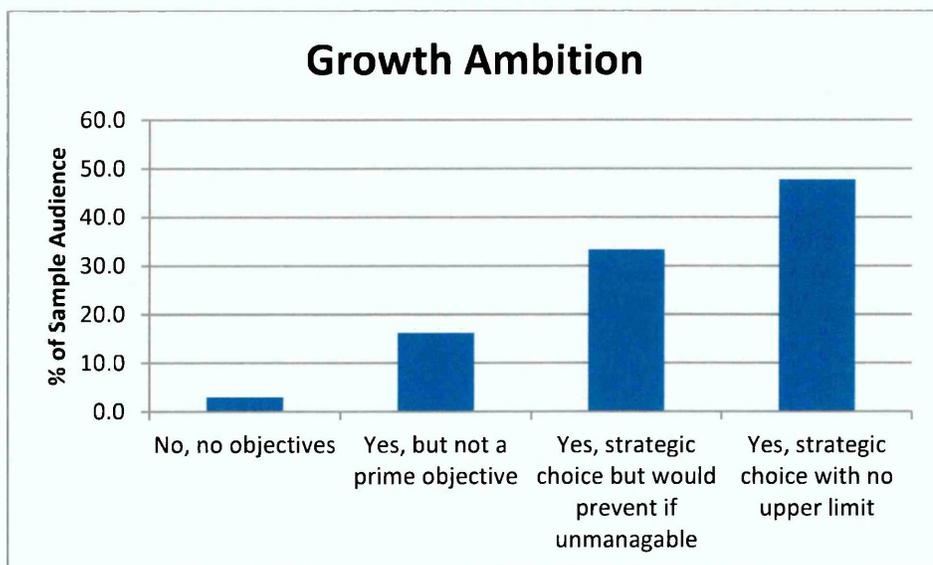
A Pearson's Chi Squared test was carried out to discover whether there was a significant relationship between companies that had undergone significant changes within the last 3 years that were managed by a PGB holder or not. The Chi squared value of .019 had an associated probability value of $p = .892$, DF 1, $n=231$. This result suggests it is extremely unlikely that there is a relationship between holding a PGB qualification and not in respect to significant business changes, the null hypothesis is therefore maintained on this occasion. As there is no significance difference in recent business changes the detail of any changes is not be explored further. I now look to explore business growth ambition, are PGB more ambitious in terms of business growth? Let us see.

4.8 Business Growth Ambitions

This section explores the growth ambitions of the surveyed businesses. The literature highlighted that many businesses are not looking to grow and that they are more tailored towards being a lifestyle business. My thoughts are that maybe businesses that employ a PGB to manage the business are more ambitious towards growth, and if so does that ambition yield results?

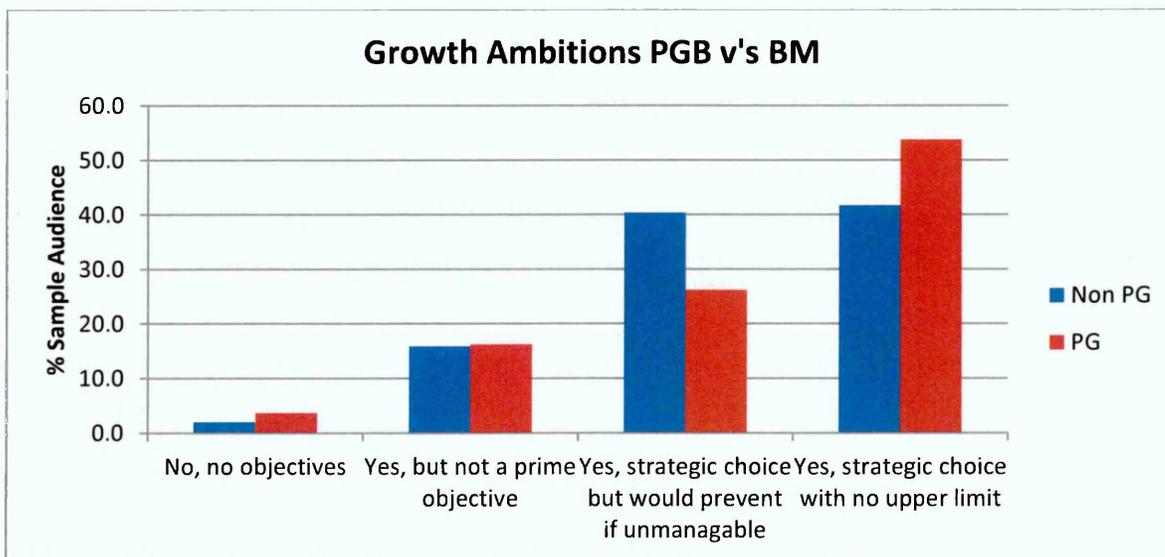
Do you want your business to grow? if yes please indicate your growth ambitions:

Chart 4.8.1a Businesses thoughts towards growth ambition.



Overall respondents are in favour of growing their businesses.

Chart 4.8.1b Businesses thoughts towards growth ambition, PGB v's BM



A Pearson's Chi Squared test was carried out to discover whether there were any significant relationships regards business growth ambitions which were managed by PGB holders or not. The Chi squared value of 5.227 had an associated probability value of $p = .156$, DF 3, $n=362$.

This result suggests it is extremely unlikely that there is a relationship between holding a PGB qualification and not in respect to business growth ambitions, the null hypothesis is therefore maintained on this occasion.

The interviews highlighted that the main business objective is more focused on business continuation and survival than growth, albeit businesses managed by PGB do typically employ more staff with 2 out of the 3 interviewees certainly working a business growth strategy, however all three BM made specific reference to being comfortable with their business size. Gordon and Michael mentioned being comfortable and recognising that if they had more ambition then they could probably drive the businesses on if they really wished for this. Gordon answered the questionnaire stating he wanted to grow his business, however when quizzed further on this he expressed his desire is for the business to stay pretty much the same, he did not want more stress at his time of life, Michael answered similarly. Martin was looking at new technologies with an objective to grow, albeit he expressed a nervousness about growth because historical experience towards taking on larger contracts had yielded bad results which nearly broke his business. My general feeling was that Martin was also comfortable, but he was exploring new technology to ensure he had business continuity should his current client base dry up. Martins business was historically linked to coal mining equipment supply which had now ceased to exist, he was being careful to branch out into new fields to avoid this happening again. Peter, Abbas and Tom all spoke of recent expansion into complete new territories. Peter had built a lighting company that was now larger than his original businesses. Tom had ventured into America and was seeing massive rates of expansion and Abbas had recently launched new products that were selling very well, again Abbas was recruiting new staff at a growing rate.

Maybe the education gave these three the confidence to take on these expansion projects, this could be the subtle difference that is needed in business to reach out and test new waters? The qualitative data certainly shed new light on the quantitative findings, especially in respect to Gordon who filled in the questionnaire expressing a desire to grow but later admitting he was totally comfortable with the size of his business. The interviews provided a richness to the data that the questionnaire alone could never have provided, on this occasion I believe the qualitative data was more of an accurate reflection of the true position than the quantitative data suggests. Having attained an understanding of business characteristics and how business characteristics can have an influence on the data, exploring the strategic tools employed, and

growth ambitions I finish the section by exploring PGB education in business and the thoughts that managers have about the place for education in UK manufacturing SMEs.

4.9 PGB Education

This section explores respondent's thoughts towards the PGB qualification. My thoughts are that managers who hold the qualification will think that holding the qualification has a positive influence on the business, business results and growth, whilst managers who do not hold the qualification will think that the qualification does not have a positive effect on the business, business results and growth. I think this will quite simply be because non-PGB will either not want to admit to lacking in their educational skills or perhaps do not see how their businesses could be performing at a lesser level because there is no PGB on the management team. This section consisted of two questions.

Do you believe a PGB education has a positive impact on business performance?

Chart 4.9.1a Businesses thoughts towards positive impact of PGB qualification

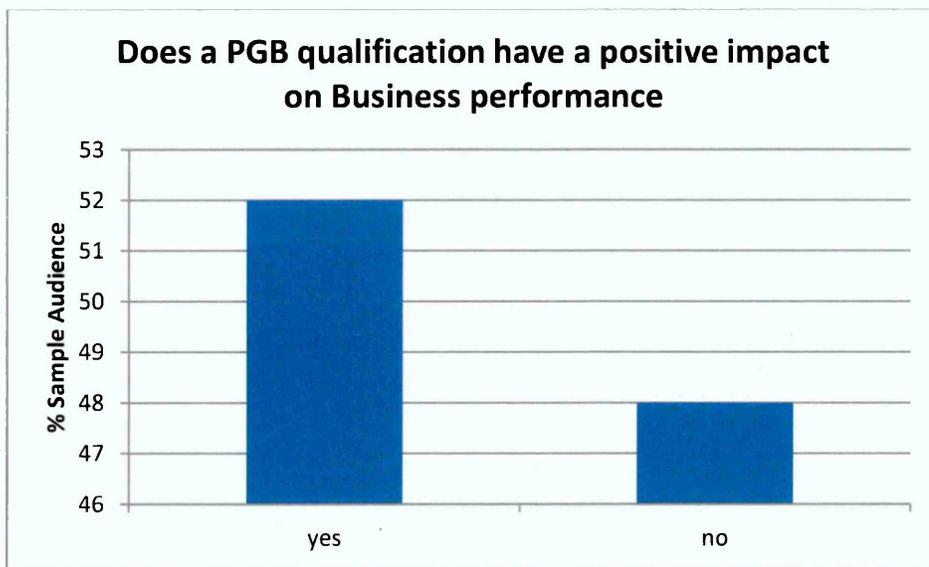
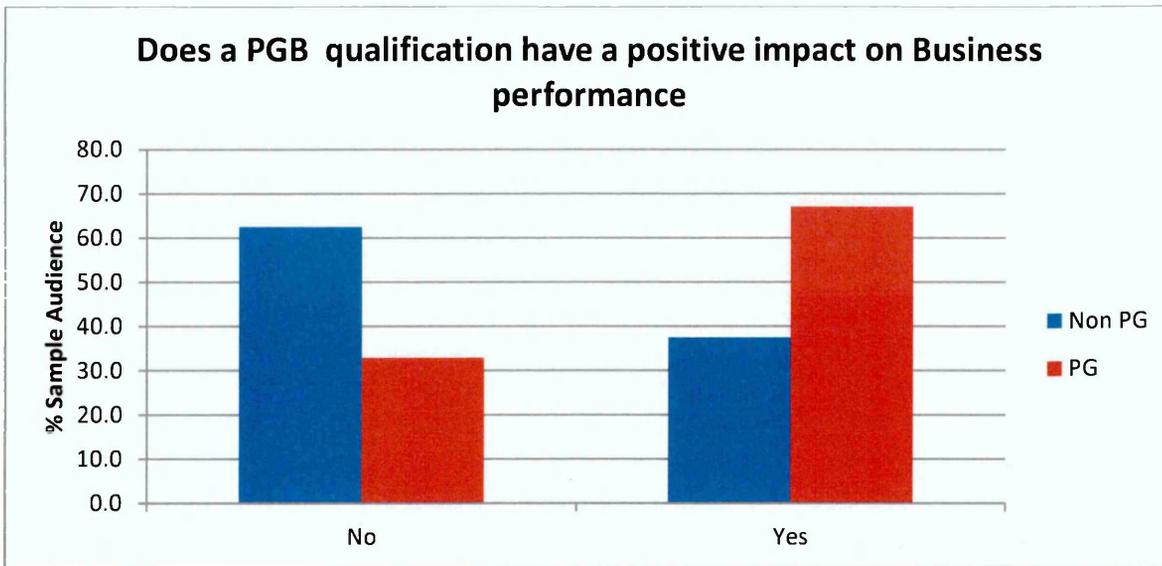


Chart 4.9.1b Businesses thoughts towards positive impact of PGB qualification, PGB v's BM



A Pearson's 2x2 Chi Squared test was carried out to discover whether there was any significant relationship between thoughts on whether respondents believed holding a PGB education had a positive impact on business performance. The Chi squared value of 17.1 had an associated probability value of $p < .001$, DF 1, $n=362$. This result suggests it is extremely likely that PGB believe their education has an impact on business performance, BM strongly disagreed with this view, hence the rejection of the null hypothesis on this occasion.

Please state why? 177 respondents answered this question. 187 respondents opted to skip this question. Answers were received both in favour of a PGB qualification and not. Primarily three core answers were given, these being; it is beneficial, it is neither beneficial nor un-beneficial or it is not beneficial. The answers that responded positively towards holding the qualification used the following as expressions to support their answers; knowledge and experience combined to provide completeness, provides strategic awareness and understanding of different perspectives, quality people, educational intellect equals quality results. The neutral respondents were typically sat on the fence stating they did not know, had no experience to comment or maybe it did or maybe it did not. The group that saw negatives expressed their opinions. Their opinions were primarily focused around experience over qualifications, and not seeing any benefits in employing educated staff.

The points raised in the questionnaire responses are aligned with the views provided by the interviewees. The interviewees who held a PGB qualification believed in the benefits and spoke of an enhanced confidence, improved knowledge and understanding and subsequent benefits

in training other staff to enhance their performance. The interviewees who did not hold the qualification talked about the negatives, Gordon mentions the educated staff who “*Could not hack it*”, Martin mentioned that it is better to “*Learn the hard way*”, referring to on the job learning and Michael discussed the negatives regards staff retention and a “*Lifetime of learning via on the job education.*”

There is certainly a split between the two groups, the “Have’s’ believe in the benefits and the “Have not’s” are far from convinced. The Qualitative data supports the quantitative data; the qualitative data gives us more of an understanding as to why the respondents provided the answers they did. Having undertaken the interviews, I believe there is a little of the “You cannot see what you cannot see” phenomenon happening. The ones who do not hold the qualification are unable to see the intangible benefits; increased self-esteem, enhanced confidence because they have not undertaken the qualification. Put this alongside the general feeling of “Being outside the club”, and you start to get an idea of why the qualification is seen as not being beneficial by those that do not hold it. There was certainly a big negative expressed by Gordon about the “Educational club”, the “Club” was also mentioned by Martin, Abbas, Tom and Peter. Peter mentioned how he saw the light somewhat once he attained his qualifications and felt as though he was now “In the club”, so to speak.

Table 4.9.2 Participants thoughts towards impact of PGB education

Beneficial to hold qualification	Neutral opinion	Not necessarily beneficial to hold qualification
Knowledge and experience combined is a powerful tool.	Neutral - depends on other factors - size/capability etc.	Not the only quality that matters.
Helped me focus on strategic issues and become less hands on.	I have no experience to suggest it does or does not.	We rely on inner skills.
Key employees gain understanding of different functions, best practice & exposure to business practices across a variety of industry sectors.	Don't know if it does or not - not had any experience of it.	No substitute for on the job experience.
Quality people = Quality business.	Don't know, have no experience to compare.	Has never affected my business experience counts for more.
Provided strategic thinking to my make-up.	Our business is a small engineering company that cannot see what advantage a PGB can give, in medium to larger operations would be advantageous.	Feel that experience is a better qualification for our business.
I believe it is an enabler.	Knowing the business can also be beneficial.	More businesses are messed up by MBAs than are benefitted.
Broadens horizons and allows people to have multiple skillsets when solving problems.	My answer would actually be maybe - could improve strategic thinking, better networking.	Recruits who have PGB qualifications have disappointed in their ability to contribute towards business development.
Gives structure to practical knowledge.	Difficult to measure as none of the Directors have PGB education.	Only experience in recent years was negative - too academic.
Moderated with experience it adds a new dynamic to the management team.	Depends on the individual, there is lots of talent without qualification.	Common sense and personality are the most important.
In theory: the person has a wider perspective on the business in the whole environment in which it does, or could, operate.	Not known.	Business knowledge based on experience.
To help become more proactive rather than reactive.	Maybe in some instances.	Not necessary, what is important is continual challenging objectives and exposure to other disciplines.
By addition of prior experience and proven techniques.	We have done OK without it but who knows, it could do!	Need people with hands on & product knowledge.
Brings a different perspective.	Not applicable.	
Enables more complete analysis of all aspects of business performance.	Key personnel have professional qualifications.	
It is easier to be taught than find out as you go along.	Prejudice?	
Education is power.		
I think it brings a certain (higher) level of intellect into play.		
Historically we've gained our experience by doing the job (i.e. with no formal management training), and increasingly we're finding we learn new ways of looking at and resolving business issues from our MBAs etc. recruits.		
General Planning. Greater focused education.		
Makes you think more.		
Post grad would look at the business from a different perspective and perhaps see opportunities in other areas.		
Any additional education is likely to have a positive effect on the individual and on the company		

This now completes the analysis of the qualitative and quantitative data gathered in order to satisfy the thesis aims and objectives. The findings will be discussed in the discussion section that follows, however before I move on to the discussion and recommendations I need to explore further the findings attributed to subsidiary businesses. Albeit exploring subsidiary businesses is not fundamental to this thesis I believe this subject warrants further investigative work as there are aspects that tie in closely with my initial thoughts about the PGB manager. My thoughts, which resulted in the setting of the research aims and objectives, are that companies that employ PGB managers will grow more than those that do not. The research has identified that subsidiary businesses employ more PGB, therefore if my thoughts are correct then subsidiary businesses should be larger, it is this thought that leads me to explore further.

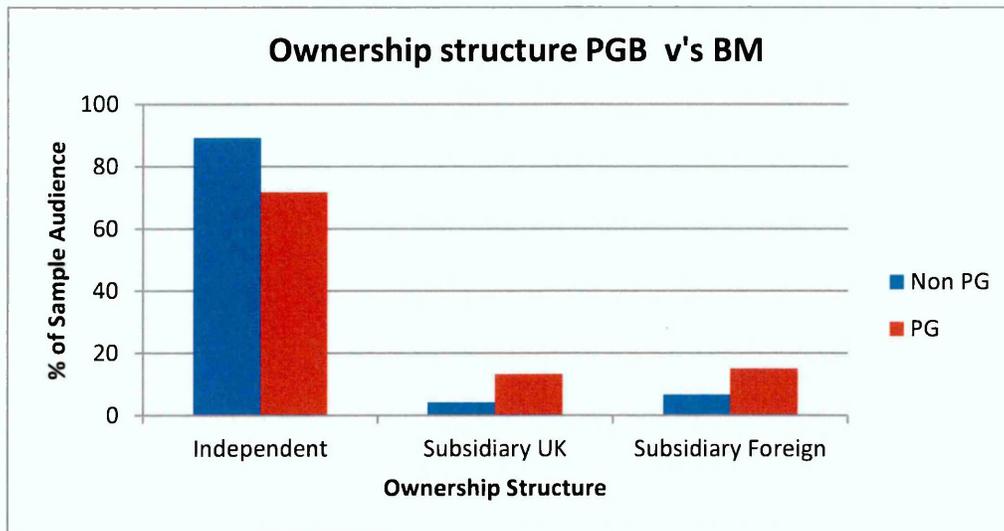
4.10 Subsidiary Businesses

A subsidiary business is nominally one that has larger parent business ownership. There is a strong argument for excluding subsidiary businesses at the data cleansing stage, after all it can be argued that subsidiary businesses are not stand alone SMEs. I decided to keep the subsidiary businesses in the survey because they are UK manufacturing SMEs, they have their own accounts, are registered UK businesses at Companies house and satisfy the general criteria defined in the literature in respect to what constitutes an SME. I think that as long as the subsidiary businesses are identified and controlled then the comparative information gleaned from including the subsidiaries in the research can strengthen the thesis and add value to the overall contribution to knowledge.

The research has identified that Subsidiary businesses employ significantly more PGB than non-subsidiary businesses. This finding reverses the general trend that PGB managed businesses are similar in terms of general business characteristics.

Chart 4.10.1 Ownership structure PGB v BM

The data represented in the chart below is not normally distributed.



The Kruskal Wallace score of 17 with 2 DF and a $p = < 0.001$ Asymp. Sig (2 tailed) denotes the null hypothesis can be rejected and that there is a significant difference between the groups. This leads me on to explore difference in business results achieved by subsidiary businesses that employ more PGB in management positions. Do subsidiary businesses employ more staff, have increased revenue turnover and enhanced profitability?

4.10.1 Subsidiary businesses; Numbers employed;

The Kruskal Wallace test identifies mean ranks of employees. The mean rank for independently owned businesses is 158, UK subsidiaries have a mean rank of 213 and foreign owned subsidiaries having a mean rank of 200. The Kruskal Wallace test score is 14.8 with $p = < 0.001$, 2DF, $n = 349$, hence rejection of the null hypothesis and a visible increase in mean rank scores relating to numbers employed. Subsidiary business employ significantly more employees. It was previously identified that businesses with PGB on the management team employ significantly more staff, so, this comes as no surprise. It has been identified that subsidiary business have a greater number of PGB in the management team, this result falls in line with what was found earlier thus improving further the confidence of findings to date.

4.10.2 Subsidiary businesses; Turnover;

The Kruskal Wallace test identifies a significant difference in turnover between independent businesses and subsidiary businesses. The test score of 15.21, with a $p = < 0.001$, 2 DF, $n=172$ rules out the null hypothesis. Subsidiary businesses have a significantly larger revenue turnover.

4.10.3 Subsidiary business; Profitability;

Utilising the Kruskal Wallace test further to explore difference between profitability and ownership realises a test score of 6.04, with a $p = 0,049$, DF 2, $N = 160$, again ruling out the null hypothesis. Subsidiary businesses are therefore significantly more profitable than independently owned businesses.

This finding does not fall in line with earlier correlation results found between number of employees and profitability or revenue turnover and profitability, it is also different in terms of significance results which were found between PGB and BM managed businesses when comparing profitability. This suggests that the management teams of subsidiary businesses are performing better for other reasons, separate and independent to the qualifications they hold.

4.10.4 Summary; Numbers employed, Revenue Turnover and Profitability.

PGB managed businesses and Subsidiary businesses show significant increases in employment levels. Additionally, subsidiary businesses show significant increases in both revenue turnover and profitability. The literature highlights research work in respect to ownership structure and the professional business manager, this work was undertaken by Berle and Means (1932). Berle and Means work was primarily focused around larger businesses, but their findings lead them to proclaim that “As the diffuseness of ownership increases, shareholders become powerless to control professional business managers. Furthermore, they claim that, given that interests of management and shareholders are not generally allied, company resources are not used efficiently in maximising corporate profit.” Therefore, Berle and Means suggest that the relationship between ownership concentration and performance should be a negative one. This is certainly not the case within the boundaries of this research, SME businesses managed by professional business managers are outperforming their counterparts which is more in line with Demsetz (1983) work, albeit Demsetz work is also focused around larger businesses.

4.10.5 Subsidiary Business characteristics

The research has identified that more PGB are employed to manage subsidiary businesses than independent businesses and that these same businesses see significant increases in; the numbers employed, revenue turnover and profitability. Could this be down to the strategic tools that are deployed within subsidiary businesses when compared to independently owned businesses. The data was analysed to explore this theory further. See tabulated data and summary below 4.10.5.1 and subsequent results table 4.10.5.2

4.10.5.1 Subsidiary Business v's Tools employed Mann Whitney

	Ownership Status	N	Mean Rank	Sum of Ranks
Strategic Plan	Independent	186	112.10	20850.00
	Sub Bus	42	125.14	5256.00
	Total	228		
Annual Appraisal	Independent	188	113.91	21416.00
	Sub Bus	42	122.60	5149.00
	Total	230		
Vision Statement	Independent	181	108.06	19558.50
	Sub Bus	39	121.83	4751.50
	Total	220		
Marketing Plan	Independent	182	114.66	20867.50
	Sub Bus	41	100.21	4108.50
	Total	223		
Mission Statement	Independent	183	111.17	20343.50
	Sub Bus	41	118.45	4856.50
	Total	224		
Core Values	Independent	175	108.74	19029.00
	Sub Bus	41	107.49	4407.00
	Total	216		
Sales Meetings	Independent	185	112.06	20732.00
	Sub Bus	41	119.98	4919.00
	Total	226		
KPI Indicators	Independent	178	105.57	18791.00
	Sub Bus	42	131.40	5519.00
	Total	220		
Monthly Reports	Independent	190	115.45	21936.00
	Sub Bus	42	121.24	5092.00
	Total	232		
Cash Flow Analysis	Independent	187	113.09	21148.00
	Sub Bus	42	123.50	5187.00
	Total	229		
Liquidity Ratios	Independent	172	106.16	18260.00
	Sub Bus	40	107.95	4318.00
	Total	212		
ISO9001	Independent	181	108.93	19716.50
	Sub Bus	41	122.84	5036.50
	Total	222		
ISO14001	Independent	161	100.04	16107.00
	Sub Bus	35	91.40	3199.00
	Total	196		
Activity Based Costing	Independent	171	103.23	17652.00
	Sub Bus	40	117.85	4714.00
	Total	211		

Table 4.10.5.2 Subsidiary business strategic tools results.

4.10.5.2 Test Statistics ^a

	Liquidity Ratios	ISO9001	ISO14001	Activity Based Costing	Cash Flow Analysis
Mann-Whitney U	3382.000	3245.500	2569.000	2946.000	3570.000
Wilcoxon W	18260.000	19716.500	3199.000	17652.000	21148.000
Z	-.193	-1.582	-1.028	-1.599	-2.026
Asymp. Sig. (2-tailed)	.847	.114	.304	.110	.043

a. Grouping Variable: Ownership structure Independent V's Subsidiary

4.10.5.2 Test Statistics ^a

	Strategic Plan	Annual Appraisal	Vision Statement	Mission Statement	Core Values
Mann-Whitney U	3459.000	3650.000	3087.500	3507.500	3546.000
Wilcoxon W	20850.000	21416.000	19558.500	20343.500	4407.000
Z	-1.397	-1.016	-1.427	-.804	-.139
Asymp. Sig. (2-tailed)	.163	.310	.154	.421	.890

4.10.5.2 Test Statistics ^a

	Marketing Plan	Sales Meetings	KPI Indicators	Monthly Reports
Mann-Whitney U	3247.500	3527.000	2860.000	3791.000
Wilcoxon W	4108.500	20732.000	18791.000	21936.000
Z	-1.705	-1.119	-2.956	-1.187
Asymp. Sig. (2-tailed)	.088	.263	.003	.235

The analysis of the data highlights that subsidiary businesses utilise both KPI indicators and Cash Flow analysis significantly more than independent businesses. Neither KPI indicators nor Cash flow analysis were tools that differentiated the management teams with PGB employed. Out of the four tools employed as being significantly different in their deployment by PGB management teams or Subsidiary businesses only one of these tools was identified as having a significant difference when measured against numbers employed, turnover and profitability, this was KPI Indicators.

The survey utilised in this thesis covered fourteen known taught business tools, this list is not comprehensive. The analysis has identified that numbers employed, revenue generation and profitability can be influenced by the tools employed. KPI indicators stood out as the primary contributor in this thesis, KPIs are utilised most by subsidiary businesses. There appears to be no direct link in respect to the majority of the other tools employed between PGB managed businesses and subsidiary businesses, therefore the overall improvement in results by subsidiary businesses cannot be identified in full within the scope of this thesis.

The only subsidiary business to take part in the interviews was that managed by Abbas, the only thing that jumped out at me during the interview with Abbas that truly differentiated his business from others who were interviewed was access to cash. The literature highlights that access to cash is a limiting factor when SME business growth is explored. Abbas states "*I've never felt that I'm short of money, if I want more money I can go and ask them and they have never refused.*" Abbas makes no direct mention of KPIs and reporting structures but he does talk frequently about data analysis and employing staff who are capable of analysing data, this line of inquiry needs further investigation.

Further research would need to be undertaken to better identify the characteristics surrounding why this business sector is significantly more successful in terms of growth than independently owned UK manufacturing SMEs. I would suggest further research be undertaken in and around the use of KPIs in UK manufacturing SMEs. It would appear that there is something happening around this area that can have a significant effect on business results that warrants further research work.

Having now completed the data analysis and having a small look into what is happening in subsidiary businesses I now need to set out on the journey to explore whether if I have satisfied the thesis aims and objectives, identified any new emergent themes that warrant further research and made a contribution to existing knowledge.

4.11 Quantitative finding summary.

The surveyed businesses fit the research criteria; UK manufacturing SMEs, the sample size is sufficient to achieve the chosen confidence levels. The businesses are established limited companies that employ more than ten staff. The data shows that businesses that employ PGB employ significantly more staff, have increased revenues and make more profit. Prior management experience before undertaking the PGB qualification makes no difference to the results measured within the confines of this research, thus questioning Mintzberg's (2005) opinion in this debate. Family businesses are equally as likely to employ PGB and are as hungry for growth as non-family businesses, this is contrary to key academic literature surrounding this subject. Ownership structure does have an effect on business performance, subsidiary businesses significantly out-perform non-subsidiary businesses across the board, subsidiary business were found to employ a greater degree of PGB. Strategic business tools are equally used between PGB and BM, the use of these tools does not highlight fundamental performance differences across the two groups. In order to attain a richer understanding of what lies behind the data the following discussion chapter explores what was said in interview by the managers who gave up more of their valued time.

4.12 Discussion

Having analysed the questionnaire results and undertaken the interviews the findings are now discussed, more emphasis is based on the interview findings within this section. This section builds on the quantitative data analysed earlier in chapter 4. As detailed in section 3.3.4 six interviews were undertaken, the interviewees all hold the post of Managing Director, the interviewees are Tom, Peter, Abbas, Martin, Gordon and Michael. The first three interviewees hold management PGB qualifications, the others do not. A more detailed synopsis of each individual is outlined in section 3.3.4. The interviews were semi structured by design, the interviewees were given background knowledge regards the reason for the research and then left to tell me about their careers, their individual journeys, their stories. Particular attention was focused on education, the PGB qualification and how they had picked up their management skills.

This discussion chapter will highlight the salient points from the research, these points are then used to construct a conceptual framework., This framework (figure 4.10.1) presents the research through the metaphorical lens of a gearbox which is referred to as the “Grafton Gearbox.” The literature highlights several business variables, as outlined in chapter 1 and detailed extensively in chapter 2, these variables are known to influence SME business performance. The research findings attributed to these known variables are discussed within this chapter. The findings summary discusses the research aims and objectives, recommendations follow in the final chapter, chapter 5. The format for this discussion follows the outline of the literature review. The literature starts by exploring what constitutes an SME, so, with this in mind, I will now start the discussion around this topic.

4.12.1 What is an SME

The first area of the literature review explored the SME, what constitutes an SME, the size in terms of numbers of employees, revenue turnover and net worth. This research concentrates on manufacturing SMEs, the reason for concentrating on manufacturing was to limit business scope variability and focus on my area of expertise. As detailed in chapter 2 SME business variables influence SME business results. Prior research studies; (Cf. Berle & Means, 1932; Demsetz, 1983; Demsetz & Lehn 1985; Cho, 1998, Lansberg, Perrow, & Rogolsky 1988; Chua

et al., 1999, Mc Kenna, 1991, Romano & Ratnatunga, 1991) explore SME business variables and the effect that these variables have on business performance. In order to understand any effect, the PGB has on business performance I need to identify and control the variables that previous researchers have recognised as having an effect on SME business performance.

If I had looked at SMEs in general then I would not have an accurate reflection of PGB performance, the reason being the UKs SME sector is protean in character, (Cf. Kusyk & Lozano, 2007), put simply there are too many SME sector variables. I needed to be sure that I was comparing apples with apples. Throughout any economic period, businesses perform at different levels because of market conditions, by concentrating on manufacturing industry I limited market variability. The feedback I received in terms of the size of the businesses that formed the basis of this research falls in line with the 2006 companies act, this outlines the boundaries of a UK SME. The data shows I reached the target audience, this was good news.

The literature identifies that the SME sector has witnessed significant growth over the last 60 years and that it is the lifeblood of our economy, (Wijewardena et al., 2008). Business pulse (BDO 2012) reports that manufacturing in the UK is performing at soaring levels with greater investment and improved sales. Despite the UK witnessing recession during the period in which this research was undertaken (2009-2014) the BDO report that the manufacturing sector continued to grow at an outstanding rate in terms of revenue generation. The findings of this research demonstrate cross sectional growth across both PGB and BM managed businesses, findings show the growth level running at 12.6% over the 3 years researched. The national economic position was growth never exceeded 0.5% in any quarter throughout this 3 year period, in fact the UK economy witnessed decline in 2012 and the UK went back into recession (ONS 2012). The overall three-year total growth rate for the UK economy was 2.2% (ONS 2012). The growth findings of this research support views held by others (Cf. Beaver & Jennings, 2000; Curran & Blackburn, 2001; Benedettini et al., 2010) in that UK manufacturing and the SME sector are best positioned to lead our nation out of recession, with MAS (2012) specifically laying claims to manufacturing being at the forefront of any economic recovery.

Bearing all this in mind we clearly have a sector of interest to our economy which plays a significant part of our nation's economic success. Exploring and understanding better the contributory factors that enable this sector to thrive is of interest to many stakeholders, especially if our nation is to continue to prosper and be at the forefront of global manufacturing.

4.12.2 Legal Status

The literature explores historical thinking around the legal status, ownership and structure of the SME. This literature highlights that these variables have an impact on SME business performance in relationship to business size, profitability and the numbers employed. In identifying and controlling legal status, ownership and business structure I was able to analyse results based on these variables. The results I found are in line with previous research and show that the variables do have an influence on business performance, more detail now follows.

4.12.3 Ownership Structure

Ownership structure in specific has attracted much interest from certain academics (Berle & Means 1932; Demsetz, 1983; Demsetz & Lehn 1985; Cho, 1998; Randy & Goel, 2003). As discussed in chapter 2 ownership structure is a variable that needs to be understood and monitored, the literature identifies performance variability in businesses that have different ownership structures (Cf. Porter, 1990; Daily & Dollinger, 1992; Randy & Goel, 2003; Welch, 2003). These research findings highlight difference in the independent variables; number of employees, revenue generation and profitability when ownership structure is the dependent variable. The data shows that subsidiary businesses outperform non-subsidiary businesses. However, my interest is primarily focused on the PGB. I needed to understand if there is any difference in PGB employment levels across the varying ownership structures, if there is difference and businesses perform at different levels then this difference needs to be studied and understood.

Analysis of the findings show PGB employment levels within businesses that have different ownership structure differs considerably, see chart 4.3.3b. Subsidiary businesses both UK and foreign owned employ significantly more PGB. This is potentially of interest to me, my thoughts are centered on the notion that PGB managed businesses will out-perform non PGB managed businesses, if this is the case the subsidiary businesses should out-perform non subsidiary businesses, which they do. The Kruskal Wallace test identifies mean ranks of employees. The mean rank for independently owned businesses is 158, UK subsidiaries have a mean rank of 213 and foreign owned subsidiaries having a mean rank of 200. The Kruskal Wallace test score is 14.8 with $p < 0.001$, 2DF, $n = 349$, hence rejection of the null hypothesis

and a visible increase in mean rank scores relating to numbers employed. Subsidiary business employ significantly more employees. See 4.10 for further detail on revenue generation and profitability.

Data attained via the survey highlights significant difference in respect to PGB employment levels, but what do the interviews reveal in this area? The interview transcripts highlighted that only one of the six businesses is a subsidiary business, this being Abbas's business. Abbas's business employs Post Graduate Business managers. Abbas recently went back to University to undertake an MBA. Abbas states that the reason for this was "*When I started managing this business, I thought I need to communicate more, the MBA was a mechanism for me to find the language of communicating with the new managers.*" I see this statement as tentative recognition that MBA qualified managers were managing within the business that Abbas manages and that Abbas needed to be able to speak their language. Later in the transcript Abbas mentions he sent three managers to University to undertake their MBAs, thus confirming the commitment by the company to enrol staff on formal PGB courses. In respect to Abbas communicating with the new managers, Sturdy (2006:850) discusses management language in the context of undertaking an MBA and states the following "If respondents generally disregarded the tools and techniques as being of value, even the explicit tools and techniques of strategy then what else lies behind such an apparently pronounced and widespread sense of increased self-confidence?" A looser examination of the managers' responses showed that the acquisition of the language or discourse of business and management "The ability to speak with a certain air of authority" was vital. The findings of this thesis support this view. The benefits to practice are outlined explicitly by both Abbas and Peter in Chapter 4 section 4.12.3 when they talk about the successes (increased revenue generation and profitability) of their businesses, and how they believe their PGB education has acted as the catalyst to achieving these successes.

There were no other subsidiary business managers interviewed, however Gordon's business was previously a subsidiary business. Gordon sold his business to a larger parent company and then bought the business back. Gordon made some interesting comments that directly refer to the recruitment of PGB educated managers in subsidiary businesses. Gordon talks about the acquisition and states the following "*Me and Paul got this chunk of money when we sold out, we were now working for this big business, and thought we were set for life. Now you go back to people with an education, and talk to people with diplomas and degrees, all of a sudden,*

from the outside going in, there is a club. They are all asking you "Well where did you study? What is your story? What are your qualifications?" That is what it was like then in the late 1980s early 1990s." Gordon recognised that both he and his partner did not have the qualifications that the managers in the larger business had, they were not "In the club" to use Gordon's words. Gordon felt like an outsider. Gordon found himself being made redundant by the new business owners shortly after the acquisition, Gordon felt he and his partner did not fit in, thus suggesting the parent company had a preference towards employing more formally educated managers, albeit no direct reference was made to PGB over Graduates.

So, we have both quantitative and qualitative data confirming the prevalence of recruiting PGB in subsidiary businesses. Interview transcripts also identify that non subsidiary businesses managed by PGB are also committed to employing PGB. Peter talks about education and states *"I think if you become educated you also employ people who are better educated"* Peter talks about his deputy completing his Masters and how this gave him added confidence. Section 2.5.2 talks about management confidence and how reflective learning techniques can enhance the competence, confidence and decision making ability of the manager employed. Sturdy (2006:850) talks about a "Widespread sense of increased self-confidence?" and how the gaining of self-confidence plays an important part in management development, as highlighted in chapter 2. More specifically the literature (Raelin, 2001; Høyrup, 2004; D'Cruz, Gillingham, and Melendes, 2007) identifies how management learning can be enhanced by proactive critical reflectivity, the surfacing and critiquing of tacit or taken for granted assumptions and beliefs. This takes place through the dialectical relationship between reflection and action in which reflection is a precursor to action, but the process of action leads to further thinking and reflective processes.

This process can be enhanced by managers who have undertaken the PGB qualification. The PGB manager is able to reflect on management theory. Management theory can then be used as an analysis tool to any given practical situation. The PGB manager thinks reflectively to tailor a solution to suit both theory and practice. The qualification provides enhanced confidence by allowing reflective thinking to take place.

Not all the interviews shared the view that PGB recruitment is necessarily a positive thing, Gordon feelings are not isolated when he states *"I think if two guys came and one's got a Master's degree and one hasn't, I wouldn't see that as a prejudice to the other guy. We have had people here with good degrees and they haven't been able to hack it."* Generally speaking

Gordon's opinion as outlined in Chapter 4 section 4.12.7, is contradictory in parts to that of the literature. Gordon is unsupportive of the graduate/Post Graduate route and at times Gordon sees the negatives as opposed to positives as a direct result of the training. However, this said, Gordon goes on to discuss how he believes that PGB would probably take his business to a new level in terms of size and profitability, this viewpoint supports the literature. Gordon has clearly had prior negative experiences when recruiting graduates and these experiences have tainted his opinion in respect to management and education.

Michael appeared to have mixed views, albeit overall I believe Michael would be more positively minded towards the qualification if it could be undertaken over a longer more flexible time period. Martin appeared favourable towards recruiting PGB in his privately owned business, Martin does not hold a PGB qualification. Martin's views differed to those held by Gordon, also a non-PGB. This opposing view demonstrates that there is not a distinct split of opinion based on qualifications held, there is a large degree of grey, everything is not just black and white when the two groups are questioned about their views on the PGB.

It is well documented that larger businesses employ more Graduates/PGB than small businesses (Mintzberg, 2005; Nabi et al., 2006). Albeit all businesses that took part in this survey fall into the SME business category as outlined in chapter 2, there appears to be a difference in terms of management structure in the subsidiary businesses, they appear to be following the lines of larger business when recruitment decisions are made. In general businesses that are non-subsiary but managed by PGB appear to be very favourable in their thoughts towards employing graduates and PGB. The larger business recruitment model appears to be applied in subsidiary SMEs, this research demonstrates that this yields more fruit. Further aspects of subsidiary business protocols are explored later.

Ownership structure has been identified as a variable that is influencing UK manufacturing SME performance in terms of the targeted measures this research focuses upon. The positive aspect that has been identified to date in respect to ownership structure is that subsidiary businesses employ more PGB, with the research highlighting quite clearly that PGB have a positive effect on performance.

4.12.4 The family Business

The last aspect of ownership structure to be explored is that of the family business. As discussed in the literature review 66% of the UKs SMEs are family businesses (Cable, 2011), with 11.4% of these businesses involved in the manufacturing sector. It has been discussed that family businesses differ in terms of size, strategy and internal controls and are more traditional or lifestyle type businesses. They are more inward looking and tend to recruit and promote family members over and above business professionals (see Donkels & Frohlicht, 1991; Daily & Dollinger, 1992; Story, 1994; Westhead, 1997; McMahon, 2001; Poutziouris, 2001; Wang et al, 2004; Sambrook, 2005). This is important in respect to this research study, as, if the literature is correct then family businesses will be employing less PGB and should be smaller in size, should the ideas behind the research be found to be correct.

Analysis of the quantitative (survey) data shows no difference in terms of recruitment of PGB within family and non-family businesses. The interviews identified only one true family business, this was Martin's business. Martin's father handed over his business to Martin when he retired. Martin does not hold a PGB qualification, but did discuss that since undertaking a mentoring process he thought that he had "Seen the light" and was determined to undertake a formal PGB qualification. Martin has also just recruited a Ph.D., who now managed the development department and explores new technologies, this work is being financed by grant awards. Martin was enthusiastic about the opportunities this new line of business could bring to his company. The qualitative evidence attained via interviewing Martin suggested that Martin was looking to employ talent over and above family members. Therefore it would appear that participants in this research are either;

- Sending family members to university to undertake the PGB qualification.
- Or, family businesses are employing outside professionals to manage their businesses

This is contrary to what is identified in the literature (Daily and Dollinger,1992; Whisler 1998), this is an important finding in terms of this research as the family business does not need to be separated out as a variable when the employment of PGB is discussed, family business recruitment and training policy falls in line with non-family business UK manufacturing SMEs.

If family businesses are employing outside professionals to manage their businesses, then work undertaken by Westhead (1997) is challenged. Westhead (1997:47) identifies in his research

work that “A prime objective is to maintain/enhance the lifestyle of the owners” and “To provide employment for family members in the management team.” Additionally, we have Anderson and Reeb (2003:1302) who identify that “Families can limit executive management positions to family members,” suggesting a restricted labour pool from which to obtain qualified and capable talent, potentially leading to competitive disadvantages relative to non-family firms. Finally, we have Lee and Rogoff, (1996) discussing that family members often take precedence when employment decisions are taken. With all this in mind I would have expected to see a greater number of PGB educated managers employed in non-family businesses, albeit I accept that this study is focused on UK manufacturing SMEs only. The fact that I have not highlights a difference in the findings within the confines of this research study. The findings of this research are contrary to all of the above historical literature.

In addition to the above there was also no difference identified between family and non-family businesses when growth ambition was explored. A student t-test was undertaken exploring growth ambition; growth ambition was the variable explored between the two groups. Family businesses that were looking to grow had a mean score of 2.18 (SD 0.824) compared to a mean score 2.33 (SD .803) for non-family businesses. The mean difference between conditions was 0.156. The t score found was 1.451, DF 232, this denotes no difference between growth ambitions of family and non-family owned firms. These research findings are certainly contrary to what Donckels and Frohlicht (1991) found, they found that family businesses are often inwardly directed or closed family related systems. Once again this data negates growth ambition as a variable to consider when undertaking research work of this nature within the confines of this study. This is positive news because the overall findings of this research will be just as important to family businesses as non-family businesses.

4.12.5 Learning Theory

As highlighted in the literature, significant figureheads of the business world dropped out of university to concentrate on managing their businesses. The literature highlights several learning paradigms; behaviorism, cognitivism, constructivism, ELT etc. Fundamentally the literature highlights that human learning is the combination of processes throughout a lifetime, whereas the person experiences social situations, the perceived content of which is then transformed cognitively, emotively, or practically (or through any combination) and integrated into the individual person’s biography, resulting in a continually changing (or more

experienced) person (Jarvis, [in Illeris] 2009). With the research exploring difference (Post-Grad v Non Post-Grad) the interest in learning theory comes about regarding how individuals who are not PGB pick up the skills to manage their businesses. In order to best understand how non-PGB learn I need to look into data attained via interview both from PGB and BM.

Interview analysis identifies evidence that managers learn in different ways, principally following the paradigms highlighted within the literature; behaviorism, cognitivist, constructionism (Cf. Chomsky, 2006; Berliner, 2006; Bransford, Brown, & Cocking, 2000) see section 2.2. The following interview passages demonstrate this; Interview one was undertaken with Peter, Peter is a PGB. Peter starts the interview with the following comment *“But fortunately I got to work with some fairly clever people, people who were far better qualified and far brighter than me in my early twenties.”* Peter implies in this comment that he can learn from the people who work alongside him, he can learn from their behaviour, experience and skills. Behaviourism the term coined by Watson (1878-1959) works on the premise that we learn from systematic observation. Peter talks about how he *“Met these brighter people in drawing and technical departments”* and observed their drawing techniques, learning along the way. Peter also demonstrates cognitive learning when he discusses how he learns from experience and utilisation of knowledge when he states *“We did work for people like JCB. Who, if you’ve ever worked for JCB, if you ever put a price increase on the table they take the work off you automatically. Even if you’re still the cheapest it’s just a policy they have, you never get a price increase out of JCB.”* Peter mentioned that his business no longer works with JCB because he never makes money from JCB. Peter now passes this knowledge onto his junior team.

Peter also demonstrates constructive learning when he talks about his term as chairman of the advisory panel at Nottingham University. Peter states *“I was chairman of the advisory panel, I was taking something out the system, by giving them my time, but it allowed me to look at all of these things and as a consequence got better, we got smarter, our reputation was enhanced, because everybody was engaged.”* Peter demonstrates in this statement that he was learning in many ways, thus constructing knowledge via numerous sources. Peter also demonstrates how he learns from experience and by training his brain, transformation of experience (ELT), Kolb’s (1984) learning cycle. Peter demonstrates this clearly when he talks about historically learning from past-experience in terms of acquisitions and historical failures that taught him and his team how not to go about acquiring a business.

The fundamental aspect that stands out in terms of learning throughout the whole of Peter's interview is that of the PGB qualification. Throughout Peter's interview Peter constantly refers to the business skills he picked up at university, the networking opportunities that attending university presented him with and the added confidence that attaining the qualification gave him. The following are passages taken from Peter's interview; *"And over the years I've joined a lot of committees and represented the industry at a lot of forums and I always felt that I wasn't as clever as the people around me. And all of a sudden I did, I was a chartered manager, I was a chartered engineer, I'd got a Master's degree, I thought more, for my self-esteem it was brilliant", "We got better and smarter, reputation went up, turnover and profitability went up. And that basically came out of me wanting to improve myself", "We've put people through Master's degrees and the whole ethos now of the business, it raises the professionalism of the business."*

The above passage supports the literature (Zimmerer and Scarborough, 2005; Sturdy et al., 2006; Wheelen and Hunger, 2010; Smith and Lewis, 2011; Franka et al. 2013; Anyadike Danes et al. 2015) which fundamentally supports the view that by undertaking an MBA/PGB qualification one's confidence levels soar to new heights. Peter's comments detailed throughout this section describe how Peter is utilising reflective learning techniques, which, in turn make Peter a more competent and confident manager, these are all traits that have been identified as being critical to being a successful business manager. When Peter states *"We got better and smarter, reputation went up, turnover and profitability went up. And that basically came out of me wanting to improve myself,"* the link to professional practice becomes clear. Peter points out the direct link between the PGB qualification and enhanced business performance via an increase in both revenue generation and profitability.

A subsequent interview with Abbas highlights similar findings; Abbas has recently undertaken an MBA qualification. Abbas talks extensively about the confidence aspect in respect to both himself and others, as discussed in the following passage, *"Certainly in that respect going to University and formalising a few things, I have seen it in my people here. I have a very good Engineer Manager, he came in aged 16 and for 25 years he knew all the engineering aspects of this business. He doesn't really have any formal education, he's never been to University and so on and five or six years ago I convinced him to go to University and get his Master's Degree. It has changed him, in terms of confidence he's a lot more confident. Whereas five or six years ago if he sat in a meeting which were all University even young graduates from University he would keep quiet, whereas now he's confident enough to tell them what his*

experience is and to be able to pass on his experience in a language which they can understand." Here we have Abbas demonstrating reflective practice being used by the team he has sent to university, we see how confidence is an enabler in terms of Abbas's learning and the learning of the team who work alongside him now they have been formally trained. The statement provided by Abbas (4.12.3) mirrors statements that Sturdy et al. (2006:851) were given when they undertook their research. Ian a first year student and one of the participants in Sturdy's research stated the following; "The MBA gives you the ability to stand up in front of anybody in a conversation and talk through a business perspective." The message that is coming out from people who have undertaken the MBA is very clear and concise, the thinking is common in terms of the MBA being a confidence enabler.

Others who have not undertaken the PGB qualification do not talk about confidence and show tendencies to be quite dismissive about education, the strongest views are held by Gordon. Gordon does not hold a PGB qualification, Gordon explains how he has picked up his management skills in the following passage, "*We started asking questions and talking to people "Who do you know, who does this, who does that?" If I look at the management perspective of the skills that I learnt from that, the key skills I think are people, you know communicating with people, finding out what people do, finding out what areas they like. I think that that is the biggest lesson I learnt, people skills.*" Gordon then goes on to describe some of his weaknesses, "*What we didn't realise was that we needed business skills. That's what let us down, because we didn't know anything about cash flow, banking or funding. We knew how to do things, we knew how to make things, and we knew how to make money. We didn't know how to control money; we didn't know what to do with it.*"

Gordon goes on to say "*So all of a sudden, you start thinking bank, money, bank, money, but we still weren't getting that business side of life from a financial perspective, because we'd never been there. We had never understood it. We had never had to put budgets together, we didn't have to put the forecasts together, we didn't know what we were doing.*" Gordon then talks about how after spending time working alongside qualified experienced managers he developed his skill set, Gordon states "*Come 1993 we knew about cash flow, we knew about business. We'd had a proper learning curve. We knew about marketing, we knew about product development, we knew about budgeting and forecasting. We got our knowledge and your*

experience through rubbing shoulders with them people⁶ (managers with qualifications) and being dragged screaming and kicking through it all, and understanding it. we had to attend management meetings, we had to attend the big board meetings. I picked that up and quickly thought 'I've got to be savvy about this.' I quickly learnt, kept my mouth shut, and learnt as much as I could. Within a couple of years of it all, I was in the mainstream."

The above demonstrates Gordon had learned following the behaviour of others, learning cognitively, constructively and via Kolb's learning cycle (as discussed in 2.2.1). Gordon is demonstrating that learning is in fact relearning from concrete experiences between the person and the environment which surrounds the person, Gordon is creating knowledge from his personal experience.

The one thing that differed in Gordon's interview was he never mentioned confidence, he spoke dismissively about managers with an education but openly admits he had learned from them. He mentions, *"All of a sudden, from the outside going in, there's a club. They're all asking you 'Well where did you study? What's your story? What are your qualifications?'"* That's what it was like then in the late 80s/early 90s. *I couldn't really give a toss. Alright, you might have a degree, but it became an important thing. It was "Which University did you go to?" "Oh I went to Bristol, I've got a 2:1, I've got a 2:2".* Although it is clearly evident that Gordon picked up his business skills from others with business qualifications (he openly admitted this) he is always quick to talk down others who have qualifications. This is further demonstrated when he states, *"We've had people here with good degrees and they haven't been able to hack it."* Overall I believe Gordon resents education and graduates/PGB, the interview suggests he did not enjoy his time working alongside university educated managers, he clearly felt excluded. The point that is being demonstrated here is that if one does not hold the PGB qualification, and therefore feels excluded from the club and the confidence is lacking, then it will be very difficult to convince this management population that holding the qualification is actually a benefit for the business. It would appear that this type of manager looks for the negatives in educated managers, this could be because they feel threatened and inferior (as Gordon did) and therefore feel they need to be able to defend their position.

⁶ Gordon refers to them people, the people are the graduate and PGB managers he worked with when his business was acquired by a larger company. He later bought the business back and utilised his learnings to ensure his business was more successful second time around.

Martin's interview was again quite different. Martin does not have a PGB qualification. Martin talks about how he learns, he states, "*You learn in three different ways; you either learn visually, audibly or kinaesthetically. So, we did an assessment to learn how you learn and I got highly visual and highly kinaesthetic because I'm an engineer. She (the assessor) said I have very rarely seen such a squashed audible profile. So, you notice that in a classroom environment; it doesn't work for me at all. I have to see; it's got to be visual. If I read myself I take it in, or if I see a diagram, I love diagrams, or if I actually do something.*" Here we have Martin explaining to me how he learns via behavioural and cognitive techniques. Martin also discusses how he picks up his management skills from others.

Additionally, Martin attends a monthly management forum with SME business managers, Martin discusses this event in the following passage, "*We used to meet once a month, have a guest speaker come in, have a bit of lunch and we had this guy come in talking about worldwide quality systems. He did his talk, we had lunch, he cleared off and there were about a dozen of us sat around a table. He said 'what topic do you want to do next month? One guy said 'we keep getting these speakers in but we've all got that experience sat in this room anyway, we've got 12 MDs. Why don't we next month, instead of getting a speaker in, let's do it in mornings, someone volunteer to be first, we'll come to your business, give us a guided tour, pick something that's an issue to you, tell us what it is and we'll give you the wealth of our knowledge.'*" I love this peer assisted learning, I've done it two or three times and I think there's a business in here if you can get it right. We know how to advise each other. So I said 'I'll go first.'" So they came here, I gave them a guided tour, I said my issue....we couldn't call it a problem....my issue was we'd done this fantastic project, we're not very good at marketing but we know we should be better at marketing and we should be making more profit. So they all started chipping ideas." The above demonstrates how this group of people are learning through the behaviour of others, they are learning cognitively and via construction techniques. Once again they are following Kolb's learning cycle, however it would appear that the group of non-PGB are not as reflective in their learning behaviour, this could be because they do not have the educational grounding that PGB have. They appear not to have the same degree of confidence to question the theory and adapt the situation to suit their specific needs. This is important, once again the confidence aspect is identified as being the catalyst to question, adapt and succeed. So, is the PGB qualification enhancing business performance? Yes, it most certainly is. It does not appear to matter whether the manager holds prior experience before attaining the qualification as long as the qualification is attained. The qualification and

experience work together reflectively with any knowledge attainment applied into the business by the PGB manager.

The interviews highlight to me that learning takes place in many ways, Martin's interview is interesting in that Martin discusses how he was tested to see how he learns best, hence the recognition that we all learn in different ways.

The key aspects that are prevalent from the interviews held with PGB when exploring learning theory include; The theoretical understanding of the practical position via the attainment of a formal PGB qualification, increased networking opportunities and university based interfaces, knowledge and experience sharing towards business best practice alongside building an enhanced confidence and self-esteem. Another aspect which is frequently mentioned by both PGB and non-PGB is the club, the academics appear to group together and network between themselves more. Interviewees who had not had the formal education talked about feeling excluded from the club, albeit there is no formal club there definitely appears to be a class differentiator in terms of a University schooling and educational background.

Interview findings have helped develop aspects of the "Grafton Gearbox" (figure 5.10.1), such as, 'being in the club' and having the confidence to network with others who are in the club. A further aspect that is identified from exploring learning theory is that albeit non-PGB are learning about strategic tools, it appears they are not carrying the same confidence levels that PGB carry. It would appear that PGB are demonstrating more reflective practice type skills. PGB are more capable of framing and re-framing the theoretical knowledge and applying adapted theory to suit their business needs, via action and interaction with others the added confidence that the qualification brings to the individual appears to be making a positive contribution to the businesses managed by PGB, the "Grafton Gearbox" further demonstrates this.

These factors will be discussed later when the conceptual framework is outlined. The next section follows the outline of the literature review exploring management theory, teaching and the current academic debate.

4.12.6 Management theory, teaching and the current debate

The literature demonstrates management teaching and management theory has been explored since at least 1776 when Adam Smith studied productivity growth. Academics are still debating management theory and how best to teach management today. The literature goes back to the 18th century with Smith (1776) moving on to Fayol (1916), then Taylor (1967) through to more recent times with Drucker (1998), Mintzberg (2005) right up to Morten et al. (2010). The debate surrounding management theory and teaching is current and valid, this research adds to the debate.

As discussed earlier in this section the research identifies improved performance when PGB managed businesses are compared with non-PGB managed businesses. Managers who hold the qualification manage businesses that employ more staff, turnover increased revenue and generate more profit. If one was to look at the qualitative data only then everything would be very much one sided, however, interviews suggest there is more to this than numbers alone. Three of the six interviewees were not PGB and their comments regarding education and business make interesting reading.

Not all the SME business managers interviewed believe the current method for teaching the PGB qualification is best suited for SME business. As Sturdy (2006) highlights (detailed in section 2.3.2) “The search for means through which ostensibly useful ideas and techniques can be acquired and then applied to improve organisational effectiveness has become somewhat of a holy grail.” Michael discusses this in interview, Michael believes teaching schedules should be tailored differently, as he explains in the following interview passage, *“I would really like to see something whereby say I’m in a marketing business, I could do both marketing and general business over twenty-five, thirty years. Whereby I could go off for a week, two weeks a year, go and do some learning, and then put it into action for the next twelve months and come back and do another thing. Why, because I would learn that much more going forward.”* Mintzberg (2005) argues in favour of teaching management in a different way, Mintzberg is an advocate of teaching management to managers with experience and not to students without management experience, others (Schein, 1968; Dyer, 1989, Egbers & Schenck, 2013; Morten et al., 2010) disagree.

Martin also questions management and education. Martin queries the formal system on at least two occasions. The following statements demonstrate Martin's doubts, *"Let me tell you about how I picked up my skills up, because I probably picked things up in a more adult way than you've done."* I take this statement to infer that Martin believes my educational route into management is not as comprehensive as his hands on experience (albeit Martin does not know the background regards my route into management). Martin explains why he is not suited to formal education when he talks about why he is an engineer; this was explained in the previous section when Martin discusses in depth how he learns. I believe Martin is saying that he would not benefit from a University education. However, this said, Martin does go on to say later that he is, *"Talking about formalised qualifications, next week I'm starting an ILM 7 qualification in coaching and mentoring so I'll end up with a postgraduate diploma in coaching and mentoring. So, I'm going back to do some formalised qualifications."*

The interviews bring out many pertinent points relating to how management is taught and how we learn. Martin talks about how he learns, he is quite expressive in his views, he alludes to the fact that classroom teaching does not work for him when he states *"I have to see, it's got to be visual and I see a diagram, I love diagrams' and finally 'or if I actually do something."* Michael's view on teaching managers over longer periods whilst in employment aligns more with Mintzberg's views on how managers should be taught. Gordon's views demonstrate that in his opinion academics cannot adapt to the multi task requirements of working in an SME, and people cannot be taught these skills. The debate regards teaching management, the way in which we learn and the benefits of the PGB qualification is certainly not restricted to academics alone, SME business managers are certainly debating this very subject. The debate on how best to teach will continue between academics and practitioners alike, however, the results of this research are quite conclusive, managers that have undertaken the PGB qualification are outperforming their counterparts, from this I conclude that current teaching practice works within the confines of this research study.

The questionnaire explored the aspect of management experience prior to undertaking the PGB qualification further. The aspect that was explored in the questionnaire focused on the number of years of management experience the manager held prior to undertaking the PGB qualification. In terms of quantitative findings this research highlights no difference in business performance between PGB who have prior management experience and PGB who do not have prior business management experience, the findings also demonstrate that the length of

experience has no effect on the business metrics explored. This questions Mintzberg's (2005) view that teaching students management is a complete waste of time. Additional to this, results demonstrate no difference in performance when one explores the length of time that the qualification has been held (Chapter 4, results and emergent themes).

The final aspect that was explored within the PGB qualification holders section was one of management team size, when management PGB are on the team. It is identified that businesses employ significantly more staff when there is a PGB on the management team, but is there a further significant step up in employee levels when there are two or more PGB on the team? The data shows that there is a significant second step up in respect to numbers employed when there are two or more PGB on the management team. Although revenue generation and profit are at increased levels when two PGB are employed on the senior team, the increases are not significant, (see section 4.4.6).

The PGB interviewed all worked in businesses which had more than one PGB on the senior management team, these businesses were much bigger in size than the businesses managed by non PGB managed businesses that took part in the interviews, thus supporting the findings detailed in 4.4.6. Tom told me that the senior team consisted only of PhD's or PGB, albeit not all of Tom's team had specific PGB on the management team, there were technical PGB mixed in with the PGB. Abbas had explained how he had sent at least three of his managers to University to undertake PGB qualifications and Peter had also explained that the senior team in his business were PGB, again Peter had identified that one of these was a technical PGB. All three of the interviewees managed businesses that employed over 100 people, Tom's business was expanding at an exponential rate, Tom's business employed the largest number of highly qualified staff, Tom stated *"We have about 20% PhDs, mostly... not all Oxford, Oxford Brookes, Cambridge, Stanford. We have a lot from those universities, but we have a lot from a lot of other universities. We have a high number of Master's degree-level science and engineering graduates. Most of the rest of the staff, with possibly only one or two exceptions, will be at Bachelors level in areas that are appropriate."*

The interviewees had explained how they believed that education enhanced individual performance, increased self-esteem alongside self-confidence, and resulted in more committed employees. Tom states *"You've got to actually be really committed, so you know, the people who have got through those various stages are going to have some personality... soft personality skills that means that they are tuned to interact with each other."* Peter who states *"I think there are two or three things, one is in taking on education you obviously pick up tools*

that will help your business, you have to do that. But I think the other thing it does it's a bit like the old GC Hawthorn experiment, if you start showing an interest in people they pay you back tenfold....we show an interest in a lot of people around.' and Abbas who states *"There are people who actually believe because they haven't been to University they shouldn't be listened to, they actually believe that themselves. Or because they haven't been to University then they don't have much to say, whereas if they have a lot to say they don't know how to say it. They have not learnt that language of putting it in a more formal form so that other people can take it. Certainly giving that education to people will make a difference in the output in what the company can achieve."* Without-doubt the PGB interviewed were big believers in formal University educational training.

In Section 4.4.3 it was identified that prior management experience has no impact on business growth results when measured using the metrics utilised in this thesis. It is also identified that business growth in respect to number of staff employed increases further when more than one PGB is on the management team. The interviews highlight further respondents' views towards formal training, education, confidence enhancements and commitment to the business, further supporting earlier findings, these points are utilised in the construction of the "Grafton Gearbox."

Having explored management theory, teaching and the current debate regards the current business school curriculum I will now explore further around the subject of the "Professional business manager⁷", after all, it is the management theory and teaching that fundamentally contributes to the making of the professional business manager. The "Grafton Gearbox" is based within the context outlined earlier, however, in principal, the "Grafton Gearbox", represents the professional business manager.

4.12.7 The Professional business manager

The literature identifies that leadership, business development, people development, relationship management and strategic management skills are important skill sets that successful businesses prefer to develop (Cf. Tate et al., 1975; Dun & Bradstreet, 1979; Broom et al., 1983; Gibb, 1997; Perren & Grant, 2001). The teaching of these skills form part of the

⁷ The term Professional business manager as used in this thesis denotes a manager who holds a formal PGB qualification.

PGB curriculum (QAA benchmarks, 2013). The PGB manager will have developed academically and professionally to ensure they utilise these taught skills throughout their career. The research is designed to further explore this area of the literature. Do practicing UK SME manufacturing business managers agree that the PGB manager, who would have been taught these skills, have a positive impact in managing UK SME manufacturing businesses?

Survey findings show that business managers support the view that PGB managers have a positive impact on business performance, although the results are close; 52% answered yes, 48% answered no. The interviewee's opinions mirror those of the survey. Primarily the interviewees that believed the qualification had a positive impact are the interviewees that hold the qualification, with the non-qualification holders being more reticent towards this opinion.

The split between PGB holders and non-holders in interview was 50/50, the split in the questionnaires was 60/40, with 60% of respondents not holding the qualification. This demonstrates a slight turn in favour of the PGB manager having a positive impact within the survey population when compared with the interview findings. UK manufacturing SME business managers believe PGB who have been taught the business skills identified have a positive impact on business, thus supporting the literature, however the interviews highlight pertinent discussion points, as detailed below.

Gordon was quite negative towards both graduate and PGB managers throughout his interview. Gordon states quite clearly, *"We've had people here with good degrees and they haven't been able to hack it, some people with the greatest will in the world, some really educated people, sometimes can't think outside the box. They can't do three or four different things at once."* Put Gordon's view alongside Martin's, and an ominous picture is painted. Surprisingly though, despite the negativity, Gordon did end his interview by stating that should he and his partner decide to retire he thought a PGB management team could further develop the business and take it to the next level. Similarly, Martin questioned the classroom environment for business teaching, but went on to finish his interview stating that he was hoping to soon undertake a PGB qualification. So, two of the interviewee's who held negative views towards the qualified professional business manager conclude by giving a more positive opinion. There is certainly a preference to part-time learning, all the respondents mentioned this in one way or another.

One further aspect that the literature identifies in respect to professional business managers is one of salary (Decktop, 1988; Crystal, 1990; Daily & Dollinger, 1992). The literature identifies correlation between business size and the manager's salary, the larger the business the larger the manager's salary. Survey results show that PGB managers are more favourable towards unlimited company growth when compared to their non-PGB counterparts. This could be because PGB managers are looking to increase their earning potential, thus finding in favour of the literature in respect to potential personal salary increases. As the "Grafton Gearbox" is primarily capturing the qualities of "The Professional business manager", it is further good news that in general both the qualitative and quantitative data highlight that the professional business manager is a good thing, as this research demonstrates.

4.12.8 Management competence, education and training.

The literature highlights that training, education and competence levels within the UKs SME sector is generally very low and that higher levels of competence and training are crucial to long term firm survival and growth (Cf. Marshall et al., 1995; Ghoshal et al, 1999; Ottewill et al., 2000; Jayawarna, 2003; Storey, 2004). The interviews provided the opportunity to discuss respondents' views on training. Due to the complexity of attaining a strong understanding of training engagement alongside keeping the survey to an acceptable size, training specifics are not explored in substantial detail. The questionnaire did ask respondents about their views regards the PGB qualification and this question allowed survey respondents to voice their opinions, this opinion alongside interview opinion is now discussed.

One of the key themes that came out of questionnaire and interview opinion is the importance of formal training and education to the PGB managers. The PGB were much more favourable towards their staff taking time out and undertaking formal qualifications than non-PGB. This falls in line with the literature, which also identified that there is a positive relationship between firm size and formal training provision (Cf. Mangham & Silver, 1986; 1992; Storey & Westhead, 2007; Sturdy 2006). The research findings have identified that PGB managed businesses are larger in size. Non-PGB managers were more favourable towards on the job training and learning through experience. The questionnaire findings demonstrate this, the following comments were made by the survey group of non-PGB; "*We rely on inner skills*", "*No substitute for on the job experience*", "*Has never affected my business experience counts for more*" and "*I Feel that experience is a better qualification for our business.*" The UK

(RENNES) SME survey 1995-1997 found similar findings to this, with business managers stating they had no time for training and that the courses were irrelevant to their business.

The interviews identified that the non-PGB managers believe in training, but once again not by following the formal qualification route. Martin states *“So again we're doing development things, some of those people like leadership and management training that they've had. We're doing some Masters modules with some of the guys now to try and make sure they've got the right skills there.”* Martin utilises the term “Masters modules” but believes more in mentoring and coaching on the job programmes to train his staff, similarly Michael and Gordon also prefer on the job hands on training and more informal business modules taught over many years combined with an project based work interface (DBA?). There is a preference to part time study as identified in the previous section.

The following comments were received from PGB questionnaire respondents *“Knowledge and experience combined is a powerful tool”, “Helped me focus on strategic issues and become less hands on”, “Key employees gain understanding of different functions, best practice & exposure to business practices across a variety of industry sectors”, “Quality people equals quality business”, “I believe it is an enabler” and “Broadens horizons and allows people to have multiple skillsets when solving problems.”* PGB interviewee’s comments mirror these views with Peter stating *“We’ve got young guys at the moment doing degrees. We’ve put people through master’s degrees and the whole ethos now of the business, I think there are two or three things, one is in taking on education you obviously pick up tools that will help your business, you have to do that. I also think the other thing it does it’s a bit like the old GC Hawthorn experiment, if you start showing an interest in people they pay you back tenfold, and because we show an interest in a lot of people around, everybody. Everybody who works for us has an appraisal on an annual basis and part of that is what training do you want? It’s got to have some relevance to the business.”*

A fellow PGB manager Tom states *“We have about 20% PhDs, mostly... not all Oxford, Oxford Brookes, Cambridge, Stanford. We have a lot from those universities, but we have a lot from a lot of other universities. We have a high number of Master’s degree-level science and engineering graduates. Most of the rest of the staff, with possibly only one or two exceptions, will be at Bachelors level in areas that are appropriate. So we’re driven by education, absolutely driven by it. But we’re also driven by the fact that we know that if somebody’s got*

through a BSc or MSc or PhD, then there is a certain... you can't do that just by sitting on your haunches; it doesn't happen." Tom talks openly about sending staff to undertake further qualifications whilst in full time employment within the business, as does Abbas who states *"But as managers, for us to actually improve our people it gives a big difference in their confidence and so on, to actually in my opinion to get them to do further education to go to."*

To summarise, the PGB argue very strongly in favour of formal training and attaining additional qualifications to enhance the company skill base and to give individuals an enhanced confidence to perform at the top of their game. In general, these views are not aligned with SME training literature, Storey (2004) found small firms are much less likely to send their managers for formal training and Acemoglu and Pischke (1998) who recognise that there is an under provision in small firms to provide training. One reason SMEs are not as likely to invest in training is that of cost. This research highlights the cost benefits to business in terms of undertaking a formal PGB qualification. In addition, if our government enhanced current grant schemes to include formal university educational programs then business in general benefits. Abbas talks about this when he discusses how he has sent managers to university to undertake PGB qualifications, only for these staff to then leave his business. However, Abbas is more broad minded in his thinking, he recognises that UK business benefits collectively. If all businesses thought more like Abbas, then the overall UK business skill levels would improve. It appears that there is an exception to training provision when the SME is managed by a PGB, PGB appear much more focused on formal training provision. This exception falls in line with the literature which highlights correlation between training provision and business performance (Russell et al., 1985; Bartell, 1994; Garcia, 2007). Business performance improves as training provision increases, put this alongside an enhanced view regards training provision and the PGB and we start to paint a positive all round picture. The main themes to come out of this research regards training, education and competence is the importance of the formal qualification and the added confidence that this brings to the management team. This confidence is transformed to improved growth and profitability as identified in Chapter 4 (cf. Zimmerer and Scarborough, 2005; Sturdy 2006; Wheelen and Hunger, 2010; Smith and Lewis, 2011; Franka et al. 2013; Anyadike Danes et al. 2015). Once again I find that confidence, enhanced training provision and the formal qualification stand out as being fundamental when the benefits of competence and education are explored, these again are key aspects of the metaphorical representation of the "Grafton Gearbox."

Having discussed the formal business training curriculum and recognizing the important business skill sets as identified above, alongside establishing that the Harvard Business School MBA curriculum (2013) and QAA benchmarks (2013) includes these aforementioned skill sets; strategy, finance, sales and marketing, vision, mission etc. in the PGB curriculum, it is now time I explored these skill sets further. The final part of the discussion chapter will focus on the commonly taught modules and characteristics surrounding business.

4.12.9 Business Strategy and the tools employed

As identified in the literature review, QAA benchmarks (2013: 2.1) policy states “The overall objective of Master’s level business and management degrees is to educate individuals as managers and business specialists, and thus to improve the quality of management as a profession.” This teaching is undertaken via the utilisation of business modules (Harvard, 2013). Business modules would typically include; Management, Operations, Sales and Marketing, Planning, Finance, Human Resources and Research and Development (Harvard, 2013). The modules include tools and techniques used in business to maximize business performance. The literature makes reference towards performance aspects of these tools and techniques; Hulbert (2013) discusses Marketing and assumptions made by the marketer. King (2007) talks about finance and attaining capital to fund growth. Terziovski (2010) looks at strategic planning with Gibbons and O’Connor (2005) exploring new product development.

The literature also explores the Small Business manager and the skills sets that they are expected to understand and utilise, Gaedeke and Tootelia (1983:19) comment “The owner of a small firm needs to be, or become their own “expert” in many areas because, unlike a large company, he is not usually in a position to employ experts.”

With this theme in mind, knowing that the PGB will have covered many of the taught business modules, and will have a general understanding of the tools and techniques to use, I ask questions regarding the use of these aforementioned tools and techniques in the questionnaire and subsequent interviews. The thinking behind this rationale being that the non-PGB will not be utilising the tools and techniques as prevalently as the PGB manager. In addition, I needed to understand if there was any significant impact on business performance in relationship to the use of the business tools discussed. The literature identifies that there is no one ‘silver

bullet' McLarty (1998), however my thinking is; can I identify constituent parts that form the silver bullet and are PGB more likely to be utilising these constituent parts.

In total fourteen business tools were explored, as detailed in chapter four, (section 4.5, Tools 1 to 14). The conclusion from the analysis is that PGB managed businesses are not generally using the tools any more than non-PGB managed businesses. Only two tools highlighted a significant difference in their use, these being Marketing Plans and Mission statements. Business results (No. employees, profitability and revenue turnover) are found to have varying degrees of influence via the utilisation of the business tools employed, as detailed later in this section. My thoughts towards the utilisation of strategic tools in SMEs and the link to the PGB manager and enhanced business growth are not found to be correct. The interviews have highlighted possible reasons for this, these being that managers who have not undertaken the PGB qualification are learning about the strategic business tools and their use in many other ways. I will now expand on this point using interview comments made by non PGB.

Gordon talks extensively about the time when his business was taken over by his largest customer. Gordon mentions on numerous occasions that he and his partner had picked up business skills from the qualified managers who were charged with managing the business following the takeover, this comment highlights to some extent what Gordon had learned *"We'd had a proper learning curve. We knew about marketing, we knew about product development, we knew about budgeting and forecasting. I picked that up and quickly, I thought 'I've got to be savvy about this.' I quickly learnt, kept my mouth shut, and learnt as much as I could."* Similarly, Martin had joined business clubs, he was benefitting from having a business mentor, again Martin makes this clear in this statement *"He was my mentor. So we started to look at everything, how we managed the business. We didn't do one thing; we did millions of little things. So, once we'd done this time with him, we then moved on to sales and marketing, finance, operations and innovation and learning. We realised there were probably softer skills we needed to look at about how we manage people and how we interact with each other, we did things about values, beliefs and vision and that stuff."* Finally, Michael, who now works closely with his local university. Michael talks about his business educational learning process when he states *"I did a further business course with the UEA at the Business School, over a year doing various different things. It essentially was an ongoing business course, also I'm now on the advisory board to the Norwich Business School at the University of East Anglia."* These statements demonstrate clearly that knowledge pertaining to the understanding

and use of strategic business tools is accumulated in many ways, the PGB education is just one way of attaining this knowledge. I had known about these methods of learning, however, I am surprised to see that non PGB are utilising the skills as effectively as PGB and that there is no significant effect on business growth via the use of these tools.

My thoughts that deployment of business tools will influence business performance has found mixed results as is now discussed. The positives that fall in line with the literature include tools relating to Sales and Marketing, (Miles and Snow, 1978; Porter, 1980), Finance (King, 2002; Sunday 2011) and Planning (Preble, 1997; Terziovski, 2010). Results demonstrate that the business tools that have a significant result on business performance are; Strategic planning, Sales meetings, KPI indicators, Liquidity ratios, ISO 9001 & 14001 and activity based costing. The tools that appeared to have no effect on business performance included monthly reports, cash flow analysis, staff appraisals, mission and vision statements, core values and marketing plans. This leaves an overall mixed opinion regarding the deployment of specific known strategic tools.

This finding falls in line with academic literature that questions the overall quality of the deployment of strategy and strategic business tools within SMEs. The literature identifies that in practice SMEs tend to orientate towards short-term operation rather than long-term strategy, and decision making tends to be reactive rather than proactive (Cf. Jones, 1982; Gaskill, van Auken & Manning, 1993; Brouthers, Andriessen & Nicolaes, 1998; Stonehouse & Pemberton, 2002; Mazzarol, 2004). In SMEs that claim to plan, plans are frequently ad hoc and intuitive rather than formally written, and provide little basis upon which business performance can be measured or analysed (Kelmar & Noy, 1990).

With research findings showing enhanced results attained by the PGB, my thinking is that PGB are utilising strategic tools in a more productive manner. My thinking is that the added confidence that PGB talk about extensively is enabling the PGB to reflect and question the theory further, thus resulting in a modified adaption of the use of the strategic tools which results in the enhanced business results. The confidence aspect is once again identified; I liken this confidence to metaphorical oil that acts as a metaphorical lubricant within the 'Grafton Gearbox.'

4.12.10 Discussion Summary

After reviewing the contemporary literature surrounding SME performance, competence, confidence and decision making (cf. Zimmerer and Scarborough, 2005; Wheelen and Hunger, 2010; Smith and Lewis, 2011; Franka et al. 2013; Anyadike Danes et al. 2015) I note that not too much is changing in the world of SMEs. Problems as identified in sections 4.12.5, 4.12.6, 4.12.7 and 4.12.8 are still ever present and are the same age old problems that have been faced by SMEs for the last 30 years. When one examines confidence, competence and decision making one finds that the literature talks about training acting as an enabler. However, there is no consensus within SMEs in respect to the importance of training provision, as has been discussed. On the negative side it is common to read; “There is little careful empirical research which clearly demonstrates the provision of training clearly leads to better performance of that firm” Westhead and Storey (2004:16). However, to counter, Cosh et al. (2003:94) state; “But from a positive aspect I find there is evidence to support the view that a well-designed training process, with clear focus and effective human resources management, would improve performance and increase the likelihood of success in businesses that employ less than 100 staff.”

I believe that this piece of research demonstrates that the PGB has the effect of giving a positive impact on the managers’ competence and confidence (see 4.12.8), evidenced via the following sample of positive comments which were made by PGB qualification holders in interview; *“Knowledge and experience combined is a powerful tool”, “Helped me focus on strategic issues and become less hands on”, “Key employees gain understanding of different functions, best practice & exposure to business practices across a variety of industry sectors”, “Quality people equals quality business”, “I believe it is an enabler” and “Broadens horizons and allows people to have multiple skillsets when solving problems.”* This increase in confidence and competence in turn has a positive effect on business performance, as highlighted in the literature (cf. Zimmerer and Scarborough, 2005; Sturdy 2006; Garcia, 2007; Wheelen and Hunger, 2010; Smith and Lewis, 2011; Franka et al. 2013; Anyadike Danes et al. 2015) the literature highlights correlation between training provision and business performance. Business performance improves (via the measures identified within this thesis) as PGB training provision increases, generally speaking this paints a positive all round picture. Albeit not everyone agrees with this view, again as stated in interview; *“We rely on inner skills”, “No substitute for on the job experience”, “Has never affected my business experience counts for*

more” and “I Feel that experience is a better qualification for our business.” These comments were made by managers who do not hold the PGB qualification. The UK (RENNES) SME survey 1995-1997 found similar findings to these views, with business managers stating they had no time for training and that the courses were irrelevant to their business.

Albeit opinion being somewhat mixed, the overall business results as determined in this piece of research (numbers employed, revenue generation and company profitability) suggests that the PGB trained manager is utilising their learning positively to make a positive effect in respect to business growth. The findings of this thesis add some weight to the pro-training academic views in respect to UK manufacturing SMEs.

This research also explores many further SME business characteristics; what constitutes an SME, the legal status of SMEs, ownership structure and the family business, learning theory, management theory, teaching, the professional business manager, management competence, education, training, business strategy and the strategic tools employed. The interviews and questionnaire results combine to provide common themes which are highlighted at the end of each discussion section, these themes form the constituent parts of the “Grafton Gearbox” that is now explained in more detail, see below.

What is an SME; The preferred definition and parameters set out within the answers given to this question form the size limitations in which the “Grafton Gearbox” will most likely function consistently. Legal Status; The findings suggest the “Grafton Gearbox” will work reliably within the confines of Limited Companies. Ownership Structure; The findings support the initial research thinking in that businesses which employ PGB will outperform their counterparts, the interesting aspect being that subsidiary businesses which employ a greater amount of PGB consistently out-perform all other business ownership structures. This helps confirm the “Grafton Gearbox” theorem. The Family Business; The findings suggest the “Grafton Gearbox” will work within the family owned businesses. Learning Theory; Albeit business skills are picked up via traditional learning theory paradigms the research demonstrates that when the formal PGB qualification is held then confidence is enhanced, this confidence when combined with experience (attained either before or after undertaking the PGB qualification) enables the manager to enhance their reflective practice approach to business management. Business confidence is improved enough to question and adapt. Management Theory, Teaching and the Current Debate; Peer to Peer formal educational

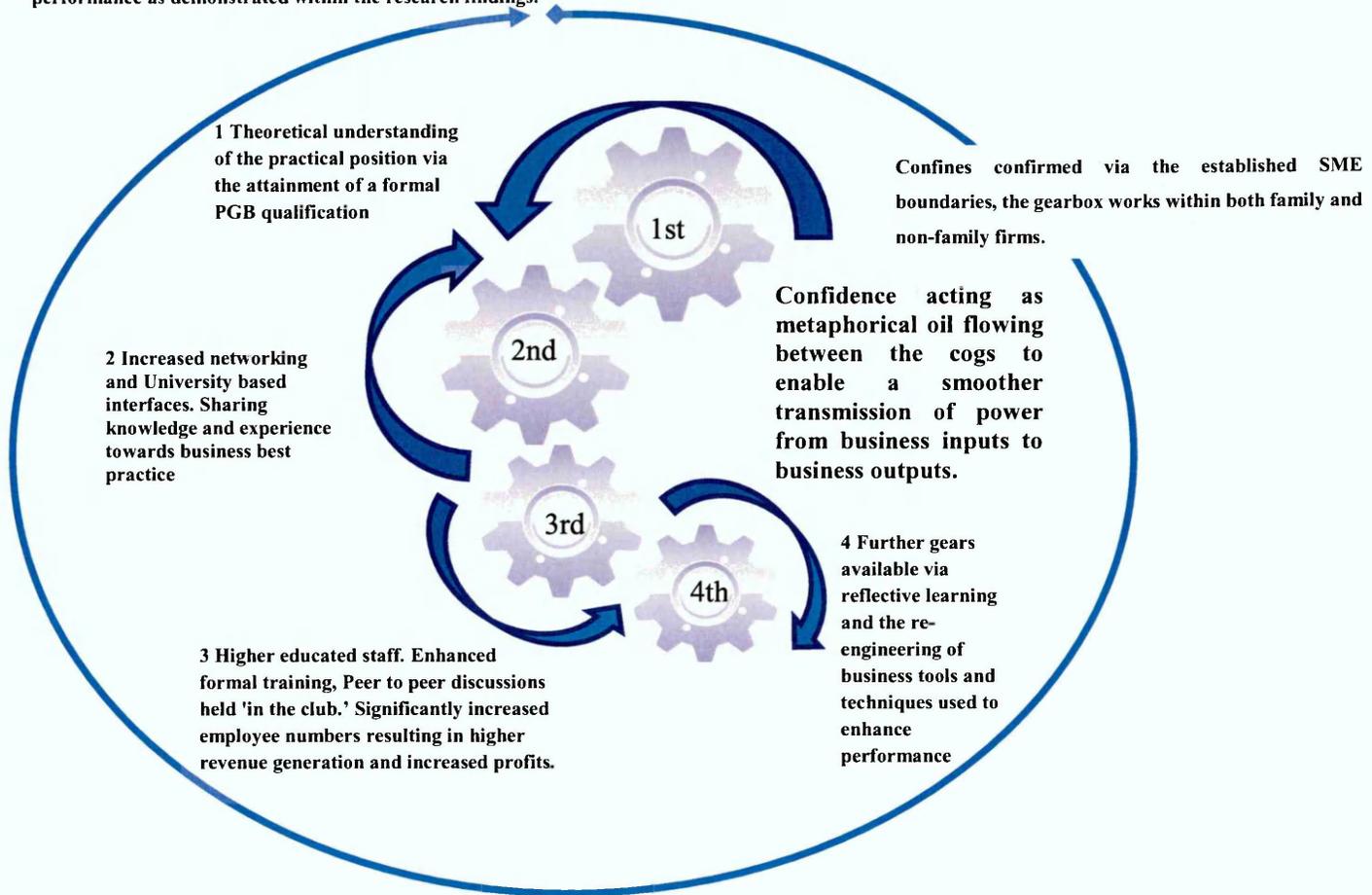
learning enhances networking capacity and forms the boundaries of what is commonly referred to as “The club.” The teaching provides the theoretical underpinnings that give the manager the ability to understand, question and reflect on ever changing practical positions. Management Competence, Education and Training; Confidence, enhanced training provision arranged by PGB resulting in formal qualification attainment stand out as being fundamental when the benefits of competence, education and training are explored, these again are key aspects of the “Grafton Gearbox.” Business Strategy and the Tools Employed; when the PGB qualification is held confidence is improved, this confidence is the metaphorical oil that lubricates the “Grafton Gearbox.” The Professional business manager; Well trained, confident, reflective, strong networking capability, prior or post educational experience completes the make-up of the Professional business manager.

The qualitative findings which appear to drive the quantitative improvements lead me to liken the university education of the PGB (which ultimately leads to the professional business manager) to that of the metaphorical “Grafton Gearbox.” Productivity is maximised by transforming inputs to outputs as efficiently as possible. Productivity as measured in terms of growth within the confines of this thesis. The snippets of learning and enhanced confidence etc. attained via the undertaking of a PGB qualification are likened to the cogs and oil rotating within a gearbox.

Through the image of the “Grafton Gearbox” I have constructed a framework that demonstrates the how post graduate management education may be seen to provide the basis for securing SME growth and success.

Fig 4.12.1 The Grafton Gearbox

Fig 4.12.1 The “Grafton Gearbox” . The framework depicts the metaphorical workings of a gearbox within the confines of a business. The enhanced skills and confidence relate metaphorically to the cogs and oil within the gearbox, these act as enablers to improve efficiencies and enhance growth performance as demonstrated within the research findings.



The cogs synchronise to act as an enabler, the increase in confidence acts as the lubricant to ease the functionality of the cogs turning within the gearbox. A gearbox facilitates an efficient controlled application energy (input) to maximise drive (output) dependent on the requirement, utilising a well-designed systematically controlled gearbox enhances outputs within the confines of a casing. Likewise, a company transforms inputs to outputs within the confines of the business. The inputs that form a typical manufacturing SME business are raw materials and labour (energy), the output is nominally a product (drive), the transformation process is nominally a systematically controlled group of people and equipment via the utilisation of management.

At times the difference between any two cogs functioning together within a gearbox can be minor damage to one tooth, minor damage to one tooth may not sound too significant, however this damage can make the difference between reaching the top of the hill and not. I liken this to the fine line that managers have to tread, the line which separates success and failure. The added piece of information, the decision to send someone for formal training or having the confidence to recruit a new employee can make all the difference. This is highlighted by Peter in interview when he is asked 'would you be sat in the chair you are sat in if you had not attended university, to which Peter replied "*I might have ended up in this chair but it would have been a much smaller chair.*" Having now assembled the metaphorical gearbox, I move on to close out the thesis aims and summarise the overall findings.

Chapter 5 Research Conclusions

The principal aim of the research was to identify whether UK SME manufacturing businesses that are managed by PGB employ more staff, generate increased revenue and make more profit over businesses that are managed by BM. In addition, a second aim and four objectives targeted further SME business variables that could affect SME business performance. The review below sets out to explore whether the research aims and objectives have been achieved;

5.1. Research Aims and Objectives

1. The principal research aim is to critically examine whether businesses that are managed by Post-Graduates in Business generate greater revenue, more profit and employ more staff than businesses managed by Business Managers.

Businesses that employ PGB on the senior management team are bigger in terms of numbers employed, revenue generation and profitability. However, they are only significantly bigger in respect to numbers employed, albeit there is a strong correlation between revenue generation and numbers employed. There is low correlation in respect to profitability and the numbers employed, and medium correlation between profitability and revenue generation.

The interviews confirmed the quantitative data findings and identified an enhanced confidence in the team of managers who held the PGB qualification (Cf. Zimmerer and Scarborough, 2005; Sturdy et al., 2006; Wheelen and Hunger, 2010; Smith and Lewis, 2011; Franka et al. 2013; Anyadike Danes et al. 2015). The interviews enhanced the quality and depth of the survey data.

2. The second aim is to determine how managers learn in businesses run by managers who do not hold a Post-Graduate business qualification.

Managers learn in many ways. The interviews identified that managers learn via informal management training methods, others learn via experience and their mistakes, furthermore managers learn via observation of others alongside peer to peer learning. Behaviourism, cognitivist, constructivism and ELT learning theory traits are all demonstrable (Kolb 2005). Universities offer informal business training, local government provide training through many of their business quango's, SME forums are well established. Additional to this, managers have

access to consultants and mentor training, much of this is made accessible via SME training grants. I now detail how this thesis contributes further to professional knowledge in respect to the objectives set at the onset.

1. Establish if firms managed by PGB deploy more taught strategic business tools in the development of business strategy than BM and determine if the use of these tools has a direct result on improved business results related to growth.

The evidence suggests that there is little difference in the deployment of the 14 business tools explored. There is little to suggest that the deployment of strategic business tools is significantly contributing towards enhanced business growth between the two groups explored (Cf. Sturdy et al. 2006). Little came from the interviews that demonstrated any difference in respect to the strategic tools deployed. The interviews did highlight that BM are fully aware of the strategic business tools at their disposal and that the business tool kit is taught to others outside the formal PGB classroom. BM are attending training sessions undertaken by universities, business groups, peer to peer learning and mentoring/coaching sessions, all of which are teaching the UKs SME sector about business strategy and the strategic tool kit tools which are available to business managers (Cf. Berry, 1998; Ennis, 1998; Mazzarol, 2004). There were views expressed regards the benefits of learning about the strategic business tool kit via mentoring etc. over and above the traditional university route; improved labour retention, less time taken out of the business, shared experiences. Michael was big advocate of lifetime learning outside of the classroom. This learning method does not give the confidence that the formal PGB route does, this is a significant finding. PGB understanding of the business tools may be enhanced via reflective learning as discussed in chapter 4.

2. Identify whether PGB managers are more prevalent in family or non-family businesses, independent or subsidiary businesses.

I can now report the following; There is no difference regarding the prevalence of PGB in the Family business compared to non-family business. The data collated as part of this thesis demonstrates that PGB are equally dispersed throughout non-family and family firms and that there is no difference in business performance in respect to business growth between the two groups, contrary to literature findings (Cf. Lee & Rogoff, 1996: Anderson & Reeb, 2003).

Anderson and Reeb's (2003) work identified that family firms performed better than non-family firms, additional analysis revealed that when family members serve as CEO, performance is better than with outside CEOs. The results of this thesis do not support Anderson and Reeb's theory, which suggests that family management is a more effective organisational structure, however this said the findings of this research are tied to the confines of this thesis, generalisation, albeit applied, is also right to be questioned.

There are significant differences in subsidiary owned businesses.

Research findings demonstrate subsidiary owned firms significantly outperform family and independently owned firms in all three measures employed; number of staff, revenue generation and profitability. Subsidiary firms also employ more PGB. Thus confirming the literature which discusses the influences that ownership structure has on SME performance (Cf. Berle & Means 1932; Demsetz, 1983; Demsetz & Lehn 1985 and Cho, 1998)

3. Identify whether businesses that employ PGB managers have enhanced growth ambitions over BM run businesses

Research results identify that PGB are looking to grow their businesses without limit significantly more so than BMs. This finding supports the literature which highlights professional business managers look to grow their respective businesses to enhance their earning capacity.

4. Consider and examine the importance of business experience and the business Post-Graduate qualification to see if this is related to business growth.

Results show prior PGB experience is not important, it has no effect on business growth. Results show no difference in businesses that are managed by PGB with previous management experience and those that have no previous management experience. This is contrary to Mintzberg's (2005) view. Mintzberg (2005:9) argues strongly that management cannot be taught, so strongly in fact that he is quite definitive; "Organisations are complex phenomena, managing them is a difficult, nuanced business, requiring all sorts of tacit understandings that can only be gained in context. Trying to teach it to people who have never practiced is worse than a waste of time, it demeans management." The findings of this thesis suggest management can be taught in schools and universities to students that have little or no prior management

experience and that the students who attain PGB qualifications achieve improved results over their counterparts who do not hold the qualification. It was also identified that the length in which the PGB qualification has been held does not have any effect on business results attributed to growth.

5.2. Contribution to professional knowledge

Recent critiques of archaic, concrete, in-effective management knowledge, learning and educational teachings have pointed to the importance of experience, practicality, flexibility and availability in terms of progression of management education. I have sought to bring these critical insights under the microscope within the context of this piece of research. It has been argued that although the experience of gaining a multiple strategic perspective of management does no harm the understanding of management language was seen as having improved managerial use value. The popular, policy and promotional pre-occupation with practical tools and concepts was either invisible or dismissed by the research findings. The principal experiential outcome of learning via the PGB route was an interconnected sense of self confidence and improved management competence (Cf. Zimmerer and Scarborough, 2005; Sturdy et al., 2006; Wheelen and Hunger, 2010; Smith and Lewis, 2011; Franka et al. 2013; Anyadike Danes et al. 2015).

Moreover, self-confidence helps managers manage, network, communicate and develop their careers alongside the material privileges it brings. It is this, rather than strategic tools, techniques and scarce practical skills, that gets them to improve business performance. Overall the managers who are undertaking the PGB qualification are adding significant value to professional practice (myself included), this is evident in the day to day results they achieve in their respective businesses. So, in addition to recognising their improved self-confidence, enhanced competence and understanding of the management language there are several tangible paybacks that benefit our nation, these being; increased revenue generation, increased employment levels and increased profitability.

The utilisation of the SIC code system was employed to reach the target audience, this approach worked, the target audience was reached. An extensive literature review highlights the need to separate out and monitor numerous business variables that are known to have an influence on SME business growth, these variables include; business type, business ownership structure,

family or non-family business, training, strategic tool understanding and deployment, prior educational business experience etc. The questionnaire was designed in a manner to address these concerns. Any subsequent variance caused by known and unknown variables is compartmentalised when appropriate.

The research outcomes challenge professional opinion in several key areas. **The findings demonstrate that PGB holders significantly out-perform the BM when business growth is the preferred strategic choice and employee levels are the chosen measure.** Mann Whitney ranking score comparisons of 190 to 156 were found, thus denoting a significant increase in employment levels. **The importance of prior PGB experience is negated,** Mann Whitney ranking scores are comparable at 34 and 37. **Additionally, it was found that contrary to common conjecture family businesses are just as likely to employ PGB as non-family businesses,** a Chi squared value of 2.19 was achieved with 2 df and a probability value of .896 Asymp. Sig. (2 sided), n=340.

The research identifies that managers learn in many ways, informal and formal training is commonplace within the UK's manufacturing SME sector, as is mentoring and coaching. However, the formal PGB trained manager displays an enhanced confidence and sways towards choosing the formal training route for their staff when training choices are made. The CBI (2011) report that UK businesses spend around 39 billion (£) per year on training. The same report details the spending split is 70/20/10. Seventy percent (27.3 billion £) is spent on in house on the job training, 20% (7.8 billion £) is spent on coaching and mentoring with only 10% (3.9 billion £) spend on formal training (qualifications or formal training courses). There is a definitive split of opinion between BM and PGB when the importance of the formal PGB qualification is conversed; qualification holders believe the qualification is essential and has a positive influence on their career and firm performance, interview comments clearly demonstrate this. Non-qualification holders do not believe the qualification helps, in fact, conversely, there is strong opinion that the qualification actually negates business performance. BM sway more favourably towards hands-on experience over and above the holding of formal qualifications.

The comments made within the analysis section clearly demonstrate the mixed views on education between BM and PGB. Nether the less, businesses managed by PGB are larger, make more profit and employ significantly more staff.

HM Government press releases (2013) announced that 238 million (£) grant funding was available for SMEs wishing to undertake staff training. There is a “Jobbing army” out there selling their services as business mentors and coaches, receiving millions (£) in government funded grant assisted training schemes, whilst an equivalent “Qualified army” of highly educated formally trained academics teaching formal qualifications in British Universities receive little. The highly trained “Qualified army” work in UK universities, these same universities hold three out of the top ten places in the World University Rankings chart (2014). The findings of this thesis suggest that universities should be receiving more of the government grants and teaching business to more of our nation’s SME managers. The research interviews highlight that SME businesses are often reluctant to enrol managers onto formal training programs, this is because of several reasons, these include; affordability, time away from the business and staff retention.

I am of the opinion that the government should explore options to help overcome these problems and to grant fund SMEs who prefer to send managers on formal PGB qualification courses, the multiple benefits including those of enhanced individual confidence/self-esteem are all too evident. I also believe that the SME sector would benefit from Universities increasing the flexibility of delivery of said programmes, the interviews highlight known problems; improved access to evening study, work based study and qualification attainment over longer periods could help overcome known issues, thus helping our nation’s SMEs to deliver improved economic growth. The findings of this thesis identify that the PGB qualification is an effective business tool when UK manufacturing SME businesses pursue a growth strategy.

Combine the PGB qualification together with business experience and the manager has an enhanced understanding of the tools which is needed in order to be more productive. The evidence suggests that the experience can come before or after the manager has attained the qualification, the two elements combine to give the manager, the ability to reflectively improve their professional practice. Interestingly, this finding would seem to oppose Mintzberg’s (2005) view that the qualification needs to follow relevant management experience.

The three stakeholders that will benefit from this research are;

1. The business graduate – Undertaking a PGB qualification is undoubtedly massively beneficial to the individual. The qualification will give the individual the core skills needed to help them in their business management career. Via the undertaking of the qualification the individual will take away the key skills to enable them to understand how business works. It is this fundamental understanding that will allow the individual to question everyday business experiences, reflect back on their learning and have the confidence to adapt their approach to tailor a solution that best fits the business need. Additionally, the individual will take benefit from the networking opportunities that will arise via the undertaking of the University PGB degree. The individual will feel part of a unique networking ‘club’. This ‘club membership’ further enhances confidence, as the individual knows they have the backing of a team of individuals with similar skills and experiences. The research has identified that attaining the University PGB qualification is a unique way of learning, the benefits as highlighted above cannot be attained via alternate educational routes. These benefits have a direct influence on business results when qualification holders manage UK Manufacturing SMEs. The importance of undertaking the qualification cannot be overstated; it is hugely beneficial for both the individual and the business in which they choose to work.
2. The SME business owners - The SME business owners will realise the unique benefits that only a PGB holder can bring. The net effect on business performance results, (as highlighted within the research) demonstrate that money spent on financing the recruitment of a business manager with a PGB qualification is money well spent. The manager will have the confidence to reflect on their learning experience and tailor systems to best-match business needs. The business benefits are multi-faceted and span strategic business units, thus resulting in a larger, more profitable stronger business.
3. The Universities - Universities output qualified business managers. Qualified business managers optimise business performance. Businesses benefit from optimised performance. The University PGB qualification is only available from Universities. Universities have a monopoly on supply. The research shouts loud and clear that PGB are invaluable business assets. These assets and their demonstrable benefits need to be extensively marketed. Universities should be shouting from their rooftops about the benefits PGB educated business managers bring to business. The financial benefits are clear and obvious. Universities should be lobbying

government to grant fund PGB qualifications, Universities and business alike would benefit from this. The net effect on our nation's economy is unquestionably positive. Governments grant funding PGB qualifications would be a wise investment for the taxpayer. Universities can benefit from this research.

BM may well learn business theory via alternate routes; mentors, consultants, informal business courses. However, these learning methods are not providing the managers with the same degree of understanding or confidence to question, reflect, re-engineer and achieve as those developed for the PGB. The BMs are not as productive as their PGB counterparts.

I conclude that our nation would benefit from a greater level of PGB managing our nation's SMEs.

In terms of academic development, I recommend that:

1. Universities explore the option to increase the flexibility of and access to formal management training courses. Taking this action would help facilitate a greater amount of business managers holding formal PGB qualifications.
2. Further research is undertaken to investigate why subsidiary owned SME businesses perform at significantly higher levels, work needs to focus around KPIs and how KPIs influence business performance.
3. The findings in this study should be considered exploratory and not definitive.

5.3. Contribution to Professional Practice

The final contribution is personal to me. The DBA has improved me both as a person and as a business professional. My management capacity has increased; alongside this I feel I have developed as an individual. I detail 'my story' in the first sections of this thesis, I make reference to the 'council house kid' who left school with no qualifications entering onto a professional DBA programme, well entering onto that programme is only half the story. The journey has involved far more than the attainment of a professional qualification, that same 'council house kid' alongside the management team he leads, has, over the last 5 years;

- set up from nothing a UK subsidiary business that now turns over £500,000
- bought a failing UK engineering company that was on the verge of collapse, doubling staff employed and revenue turnover, turning a significant loss into a considerable profit
- bought a seriously failing Californian business and turned it around to a breakeven point securing jobs and family livelihoods
- and, significantly increased the size of the parent UK business by a factor of five at the point of writing.

The above is my contribution to professional practice.

I am of the true belief that undertaking this qualification has given me the confidence to achieve all the above, I am now a much more capable individual. In terms of changes to my personal characteristics,

- I now think much more than I ever did, I look at things from many different angles, I understand that we are not all the same and that we all think differently.

An example of this is my approach to staff, prior to undertaking the DBA I believe I was less considerate, I now take other people's views into consideration much more. I also request alternate views; it is good to look at alternate perspectives.

- My business acumen has significantly increased

I undertake much more research; the DBA has made me more aware that many others have been likely to have been in the position I often find myself in at any given time. Instead of muddling through blindly I look at the literature, this, I believe, makes the decisions I make more considered.

- I have the confidence to talk with anyone about anything whatever 'class' they are. I am no longer in awe of others. I believe we are all equal and that we can all achieve whatever we wish, given the right circumstances.

I used to be fearful of meeting some professional people, I felt in awe of their stature. The undertaking of the DBA has given me a new self-confidence. I now believe that I can work at any level, no matter how tough. I have travelled extensively meeting new people, I am happy to interface with anyone, converse at all levels, alone, without the support of my peers. I feel I have the confidence to debate with others, this has helped me in recent visits to America where we are now trading at increased levels.

- I have grown in stature, I recognise and respect more about what other people do and how they contribute to society.

I believe I was more opinionated prior to undertaking the DBA, I certainly did not recognise that everyone has a contribution to make and that all opinions count. I guess I was just not aware of how so many angles issues can be viewed, and that we all have a part to play. An example could include listening more to machine users and understanding as users their advice on machine design is invaluable.

- I understand the benefits of a team, how a team needs different characters/characteristics and how seeing things differently often helps not hinders.

The fact that I now recognise that we are not all the same, we do not all see the same thing and that seeing things from different angles helps. This has enabled me to grow our management team to encompass more views, skills and traits.

- And finally, a degree of mischief in a team from time to time can be beneficial, as long as the shared business goal is central to thinking.

I often now say something that I know will be controversial to attain an alternate view. In meetings I am critical of some ideas, even when I believe the idea to be good. I find this encourages debate and makes us think more about any given situation.

I conclude by making further recommendations, these being;

1. Implement the key research findings within our company, continue to train staff at formal educational establishments, promote PGB to the senior decision making team. I make this recommendation as I feel it is necessary to realise the fruits of my research efforts within the confines of our business group, this is in my control and will have a positive impact on our business.

This process has started, the operations Director is now undertaking his MBA, three engineers are at University doing degree courses and I have three apprentices starting out their careers spending one day per week at university.

2. Lobby government to support grant funding for formal management training within our nations universities. This recommendation is made because I believe too much of our money is wasted supporting poor quality vocational training, this research proves formal university training realises superior business results.

This process has started, a letter has been written and sent to The Right Honorable John Hayes MP, a gentleman I had the pleasure of spending a morning with at our business premise discussing business and education. The letter is detailed in appendix three.

5.4 Conclusion

The contemporary management literature as detailed in section 2.1.3 highlighted that SMEs have been increasing their share of employment year on year; in 2010 their share of employment was triple that of 1998, thus re-affirming the importance of attaining a greater understanding of business growth within the UK SMEs business sector. I am confident that the knowledge generated throughout this thesis is current, valid and topical.

In section: 2.3.3 Olle Ten Cate (2006) discusses the importance of competence, confidence and training in business. Competency based training as discussed in section 2.3.3 and 2.5.2 suggested that competence and competencies are of benefit to business managers. The PGB demonstrates enhanced confidence and competence; thus this piece of research demonstrates that the PGB qualification has value. PGB talk about the business Post-Graduate qualification acting as an enabler, and how the linking of theory and practice allow critical reflection to flourish, and how this enables them to tailor solutions which best fit their business needs, thus demonstrating that much of what is taught in business schools today is of relevance and adds value to the PGB.

This research demonstrates the importance of PGB educational programmes to UK manufacturing SMEs. It demonstrates how business PGB are having a positive effect on the business results within the UK Manufacturing SME sector, this view is supported by Garcia (2007:1704) who summarised; “Our research has provided empirical support which allows us to state that the definition of training programmes oriented towards human capital development will have a positive impact on organisational performance.”

The report by the Centre for Enterprise (2001) (see 2.3.2) notes that leadership, business development, people development and strategic management skills are important skill components that successful businesses prefer to develop to ensure prosperity. The research highlighted that leadership, business development, people development and strategic management skills are taught to PGB, as evidenced in the interviews undertaken. The findings which relate to the numbers employed, revenue generation and business profitability demonstrate prosperity is enhanced in UK manufacturing SMEs managed by PGB, thus supporting the Centre for Enterprises 2001 report.

The PGB qualification is often presented as a tool which can open up further opportunity to change careers or move from middle to senior management, attaining the qualification can be seen a pivotal moment in one's career. It is likely to encourage intensive identity work and its associated anxiety, which may not be the case for other forms of management education; vocational business training, management degrees, government led training days, mentor or executive coaching session. The outcomes of this research suggests that the vast majority of PGB are using the qualification and the enhanced self-confidence/competence it brings to both their benefit and the benefit of their respective businesses. I see it as being fundamental that once a manager becomes a PGB then the manager needs to deliver a performance that has to be credible reflection on the academic qualification they hold and the business results they deliver. One downside to attainment of the PGB qualification, as identified in interview, is that of the manager leaving the business that sponsored the manager to undertake the qualification, however as also identified in interview, UK PLC benefits as a whole as the manager often moves to another UK business to develop their career further.

What are the policy implications of the research findings? The PGB qualification has been positioned as a primary conduit for new management ideas and techniques to nourish and bolster flagging management practice in the UK and elsewhere. It has been a cornerstone of policy for building management knowledge through relevant business education, championed by policy makers and many management educationalists alike. If, as my analysis suggests, taught ideas and techniques are applied either in a direct or reflective sense, perhaps both business managers and our government should be seeking the provision of further training course delivery, which is more tailored to meet the needs of the SME business manager, as identified in interview (see Chapter 4 section 4.12.3) Michael, for example, discusses a longer part-time teaching period.

It is important to note, however, that to expect direct application of PGB training is a heroic assumption given the general reluctance towards investment in training by UK SMEs. Overall the focus of the PGB qualification is not one of informal training (as discussed above) but in fact one of formal education (MBA/MSc), it is about exposing students too new and scarcely distributed perspectives, thorough and comprehensive modes of thought and the strategic business tools as identified in leading business school curricula (see 2.3.1 Education). Indeed, my observation of the PGB qualification is that it teaches management the appropriate language (strategy) and existential condition (self-confidence) for both material and social privilege.

It is imperative that the PGB qualification (primarily the MBA) never loses its support, albeit this would necessarily involve the emergence of similar qualifications developed to produce 'enhanced' senior managers (and management academics). For the time being, despite periodic (including contemporary) claims of its approaching demise, the MBA and management continue to retain their prestige. This piece of research recognises the benefits.

5.4.1 Concluding Personal statement

Employing staff alongside building a happy and motivated team is a fantastic feeling, having the thought that I have contributed to our nation's economic success makes me feel proud. Knowing I have this newly found confidence aspires me to achieve much more in my life. The DBA has been a difficult, arduous and at times tearful journey, coming out the other end has made it all worthwhile. I believe the DBA is a fantastic qualification and is suitable for all aspiring motivated managers, if I can do it then so can others, and so they should, QED.

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Appendices

Appendix 1 National Business Survey: Impact of Post Graduate Management within SMEs

National Business Survey: Impact of Post Graduate Management Within SMEs

Section 1

1. About your business

Q1

1. What is the nature of your business? (Please state the SIC code)

Q2

2. How long has your business been in trade/operation?

- Less than 2 years
- 2 to 3 years
- 4 to 5 years
- 6 to 9 years
- 10 years or more

Q3

3. What Type of Business is it?

- Sole Proprietorship
- Partnership
- Company

Q4

4. What is the ownership structure of your business?

- Independent
- Subsidiary of UK parent
- Subsidiary of foreign parent

Q5

5. Do you consider the business to be a family business?

- Yes
- No

Q6

6. How many people did you employ in the following years?

2009	<input type="text"/>
2010	<input type="text"/>
2011	<input type="text"/>

Section 2

2. Your Post Graduate Education

Q7

1. Do you have a post graduate business qualification e.g. MBA, MSc or MA?

- Yes (Go to Q2)
- No (Go to next section)

Q8

2. Did you have work experience before you undertook your post graduate qualification?

- Yes (Go to Q3)
- No (Go to Q4)

Q9

3. How many years' experience did you have prior to completion of your post graduate qualification?

Q10

4. How many years have you held your post graduate qualification?

Section 3

3. Post Graduate Education and your Business

Q11

1. How many people form part of the senior decision making team (senior management team or Directors)?

Q12

2. How many of this team hold a PGB degree in business e.g. MBA, MSc or MA?

4. Business Strategy

Q13

1. Please tick the relevant box if the business has or carries out the following:

	Yes	No
Documented strategic plan	<input type="radio"/> *Please tick the relevant box if the business has or carries out the following: Documented strategic plan Yes	<input type="radio"/> Documented strategic plan No
Annual appraisal for all staff	<input type="radio"/> Annual appraisal for all staff Yes	<input type="radio"/> Annual appraisal for all staff No
Vision statement	<input type="radio"/> Vision statement Yes	<input type="radio"/> Vision statement No
Mission statement	<input type="radio"/> Mission statement Yes	<input type="radio"/> Mission statement No
Core values	<input type="radio"/> Core values Yes	<input type="radio"/> Core values No
Marketing plan	<input type="radio"/> Marketing plan Yes	<input type="radio"/> Marketing plan No
Sales meetings	<input type="radio"/> Sales meetings Yes	<input type="radio"/> Sales meetings No
KPI indicators	<input type="radio"/> KPI indicators Yes	<input type="radio"/> KPI indicators No
Monthly reports	<input type="radio"/> Monthly reports Yes	<input type="radio"/> Monthly reports No
Cash flow analysis	<input type="radio"/> Cash flow analysis Yes	<input type="radio"/> Cash flow analysis No
Liquidity ratios	<input type="radio"/> Liquidity ratios Yes	<input type="radio"/> Liquidity ratios No
ISO 9001	<input type="radio"/> ISO 9001 Yes	<input type="radio"/> ISO 9001 No

ISO 14001

ISO 14001 Yes

ISO 14001 No

Activity based costing

Activity based costing Yes

Q14

2. Has your business been subject to any significant changes over the last 3 years that has had a direct result on net growth (Takeover, Acquisition, New market entry)?

Yes

No

Q15

3. If yes please state change

Q16

4. Do you want your business to grow? if yes please indicate your growth ambitions

No, there are no objectives for the business to grow.

Yes, if the business grows a little I would be pleased, it is not a prime objective.

Yes, the strategic choice is growth, however we may look to prevent continued growth if we decide growth problems become too difficult to manage.

Yes, the strategic choice is growth, there is no upper limit on our growth plans.

Section 5

5. PGB Education in Business

Q17

1. Do you believe a post graduate business education has a positive impact on business performance?

- Yes
- No

Q18

2. Please state why:

Section 6

6. Business Finances

Q19

1. Please state your company turnover over in the following periods:

2009	<input type="text"/>
2010	<input type="text"/>
2011	<input type="text"/>

Q20

2. Please state your profit over the following periods:

2009	<input type="text"/>
2010	<input type="text"/>
2011	<input type="text"/>

Section 7

7. Your Details

Q21

1. Please give your details below if you are willing to be contacted for a follow up interview as outlined in the covering letter and be entered into the draw for the chance to win a New Apple I Pad 3:

Name	<input type="text"/>
Job Title	<input type="text"/>
Company	<input type="text"/>
e-mail address	<input type="text"/>
Contact number	<input type="text"/>

Appendix 2 Nomenclature statistics

Histogram - A histogram is a graphical representation of the distribution of data. It is an estimate of the probability distribution of a continuous variable (quantitative variable) and was first introduced by Karl Pearson.

Correlation - In statistics, dependence is any statistical relationship between two random variables or two sets of data. Correlation refers to any of a broad class of statistical relationships involving dependence.

Parametric - Parametric statistics is a branch of statistics which assumes that the data have come from a type of probability distribution and makes inferences about the parameters of the distribution. Most well-known elementary statistical methods are parametric.

Non-parametric -. The difference between parametric model and non-parametric model is that the former has a fixed number of parameters, while the latter grows the number of parameters with the amount of training data.

Regression and Regression analysis - In statistics, regression analysis is a statistical process for estimating the relationships among variables. It includes many techniques for modelling and analysing several variables, when the focus is on the relationship between a dependent variable and one or more independent variables. More specifically, regression analysis helps one understand how the typical value of the dependent variable (or 'criterion variable') changes when any one of the independent variables is varied, while the other independent variables are held fixed.

Normal distribution curve - In probability theory, the normal (or Gaussian) distribution is a very common continuous probability distribution. Normal distributions are important in statistics and are often used in the natural and social sciences to represent real-valued random variables whose distributions are not known.

Skew - In probability theory and statistics, skew/skewness is a measure of the asymmetry of the probability distribution of a real-valued random variable about its mean. The skewness value can be positive or negative, or even undefined

Null hypothesis - In inferential statistics on observational data, the null hypothesis refers to a general statement or default position that there is no relationship between two measured phenomena.

Appendix 3 The Rt Honourable John Hayes MP

John Hayes
Office 1
Broad Street Business Centre
10 Broad Street
Spalding
Lincs PE11 1TB24.03.2015

Ref: Apprenticeships and beyond

Dear John,

It was around 1 year ago since you and Nigel Mills visited our SME in Ripley, Derbyshire. I remember the visit well; our business has fond memories of the time you chose to spend with us. During the day we spoke about apprenticeships. I commented on how good I believe they are for both our business and our country, you mentioned that you played a fundamental part in bringing apprenticeships back into vogue, well done and thank you.

Over lunch I mentioned that I was undertaking my Business Doctorate at Sheffield Hallam University. For 5 years I have researched UK manufacturing SMEs, PGB education and business performance. I had a hunch that SMEs managed by PGB would be outperforming businesses that were not managed by PGB. My research has confirmed the hunch. SMEs managed by PGB employ significantly more people, they turn over increased revenue and generate more profit. This is very good news for our nation, it creates jobs and wealth.

So, why am I writing to you? I have studied at University for 22 years, and at no time has my study been subsidised by grant assistance. Our business can apply for grant funding for training via many organisations, however no grant funding is available (to my knowledge) for SME managers to undertake MBAs or equivalent. I believe this is a mistake, I believe that too much of taxpayer's money is used to finance grant assisted business training via consultants who are not properly qualified to teach business.

I appreciate you are a very busy man, however I would welcome the opportunity to discuss this matter further with you.

Kind Regards