The evolution of management from a trust to arm's length model in family run businesses: the case of the diamond industry

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Abstract.
Purpose – The primary purpose is to fill the research gap regarding the evolution of managerial processes within [largely family] diamond industry firms, especially over the last seven decades.
Design/methodology/approach – Qualitative data was gathered from interviews with 100 managers in the diamond industry in Israel, together with data from Israeli government, industry and academic sources.
Findings – Over the recent life cycle of the diamond industry, with its changing structures and dynamics, participant firms have evolved through seven stages of engagement, from one based on trust and personal connections to more impersonal, standardized connections that exist today.
Research limitations/implications – In seeking to tell the story of industry participants as a group, we have not explored differences in behaviours between the family firms and the non-family firms. This should be the work of future research which, if aimed at teasing out the results of this study may help shed additional light on the strategic processes that occur within family firms.
Practical implications – Although the firms examined in this study were from one industry (and an arguably narrow cultural base), their development over time was not dissimilar to the experience reported in other industries and cultures. This suggests that components of the evolution of the strategic process that ensues within family firms may be generalizable throughout cultures. In the absence of kin relationships, the importance of trust in their dealings cannot be overstated.
Originality/value – Our findings demonstrate how one group of participants in the global diamond industry has responded to the changing economic, social and political contexts of their operations, where trust and personal connections have been replace by more impersonal, standardized dealings.
Keywords: History, Diamonds, Industry Evolution, Family owned firms, Social networking, Trust, Management
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Introduction

Family managed firms play a significant role in economies around the world especially in terms of GDP growth and employment (Carraher, 2005; Carraher and Carraher, 2006). Indeed, some of the large, multidivisional businesses such as Michelin, Armani, Wal-Mart, Home Depot, and IKEA were founded and are still controlled and managed by families (Miller and Le Breton Miller, 2005). One industry in which family firms have been prominent for centuries is the sourcing, manufacture and sale of diamonds (Berger and Herstein, 2015). Inter-industry rivalry was restricted, and a co-operative approach was in place, leading to a fragile differentiation of firms (Berger and Herstein, 2012; Mostovicz et al., 2007).

Until recently, the supply side of the diamond industry, worth more than $US72 billion in retail sales globally in 2012 (Bain & Co and AWDC, 2013), was dominated and controlled by a single firm - De Beers. The control was structured around a cartel structure with a tight control on the supply side of rough diamonds (unpolished diamonds). A gradual process of market withdrawal lead to DeBeers marketing arm, the Central Selling Organization (CSO), to give up its custodianship of the industry and letting market forces lead it. On the demand side many family firms in the diamond industry have gone out of business, merged, or became non – family firms run by career managers. The mentioned industry evolution forced a managerial evolution in the demand side discussed in this paper.

Strategic management has sought from its early stages to answer the important question of how firms attain sustainable competitive advantage. In this expedition, strategic management has established theories and concepts that scrutinize the environment and look inside the firm, develop ideas and methodological advances that follow and try to predict management practice. Managers need models that help them understand the organizational and environmental antecedents and outcomes. Managers should be able to identify how these factors interact to promote change and competitive advantage. This paper uses these concepts to explain the managerial evolution of the diamond industry in line with environmental change.

Organizational capabilities are one of the key constructs in strategic management. Building on the resource-based view of the firm and ideas about firm routines and capabilities have become one of the predominant ways of thinking about firm heterogeneity and performance. The fundamental premise of the resource-based view of the firm is that resources and capabilities must be valuable and rare to produce above industry average economic rents or competitive advantage. Research to date has acknowledged the complex and changing environments in which family businesses operate, but often only to the extent that they influence the evolution of the internal structures of those businesses. For example, Trevinyo-Rodríguez (2009) argues that the evolutionary process of family firms, especially in terms of their ownership structure, is mainly driven by environmental opportunities (e.g. market expansion, extended geographic coverage). This has tended to be a fairly generic understanding though, considering the "environment" and its impacts as rather uni-dimensional. While it is known that cartels form in order to limit competition and increase profits (Berger and Herstein, 2014; Bernstein 1992), research into the effects of external environmental forces on the evolution and managerial models has been limited (Gupta et al., 2010). The aim of this paper is to fill the research gap in both these areas by way of an examination of the managerial evolution of the diamond industry, with a focus on how firms within the industry have adapted to changing environments, especially in the post-World War 2 period.

Diamonds were initially mined in India roughly 2,800 years ago. The first accounts of diamonds are biblical, comprising references in Exodus 28:18 and 39:11; Ezekiel 3:9 and 28:13; Jeremiah 17:1; and Zachariah 7:12. In Exodus, the diamond (*Jahalom*) is mentioned twice as being one of the twelve valuable jewels etched on the breastplate of the High Priest. These biblical references to diamonds are of importance, for they show that even during very early times, the diamond was considered to be a valuable stone. The diamond's scarcity as a gem and its hardness are the dominant features that resonate throughout the history of diamonds (Ghaswala, 1987). Historically, the diamond industry was based on social ties because, given its spread globally, there was little possibility of enforcing contractual arrangements (Berger and Herstein, 2012). Thus, it became a tribal business based on family ties, with contracts enforced through trust and cultural coercion (Spar, 1994). This system made selling polished diamonds for Jewish merchants' relatively easy, reducing enforcement and product assessment costs as a result of the community spread out over many countries (Grief, 1994). Most exchanges were undertaken through intermediaries who helped certify the exchange partners. With the expansion of trade routes and limitations of distribution through tribally structured distribution networks, a centralized complex bringing traders together was created. It was an accepted enterprise for the Jews scattered throughout Europe to deal in diamonds, because they were moneylenders and had strong international networks (Harel, 1986). Since the fourteenth century, it was one of the few occupations permitted to the Jews in Europe. As a result, they had to acquire in-depth knowledge about how to assess, repair and sell the jewellery that they received as collateral for loans. The cutting and polishing of diamonds was one of the few crafts that the medieval guilds in Europe allowed the Jews to pursue as a profession (Schnitzer, 1988; Szenberg, 1973). If Jews sought a profession, it had to be either gem polishing or money lending. In either instance, they would be dealing with diamonds (Berger and Herstein, 2015).

Jews had been attracted to the diamond trade as early as the Middle Ages; diamonds are the most concentrated and easily transportable form of wealth (Freedman, 1980; Saldern, 1990). Hence, for Jews who lived in constant fear of expulsion from their homes, diamonds became a rational means of storing and preserving their wealth. The competitive nature of cutting and polishing diamonds, and their low transport costs, resulted in diamonds being polished where skills and/or technology were highest or where labour costs were lowest. These circumstances led to diamond centres – Antwerp, Tel Aviv, Bombay and New York, the four largest cutting and polishing centres in countries in which not a single diamond was mined. The local diamond exchanges provided the framework within which diamond prices were determined on the demand side based on market forces. An important point to make is the fact that the supply side of the diamond industry was tightly controlled by a cartel like structure, while the demand side was driven by free competition based on private family firms. The following figure represents the diamond value chain from the ground to the jewel:

Insert Figure 1 about here

The Supply Side: De Beers

In 1725 diamonds were discovered in Brazil, and for 130 years Brazil remained the world's chief supplier. In 1876 the South African diamond fields were developed, leading to the formation of De Beers, the CSO and its affiliates. By 1876 Rhodes had gained control of most of the land around Kimberly and merged his interests with those of two other syndicates, leading to the formation of the De Beers Mining Company in 1880 (Pallister et al., 1988). De Beers has policed the global diamond industry for over 100 years, using its powerful diamond marketing arm, the Central Selling Organization (CSO). The CSO established a set of rules that ensured low-cost, efficient industry trade in diamonds – and, more important, it enforced these rules, via a system of extra-legal sanctions (Bernstein, 1992). The De Beers family of companies, which presided over the production and trade in unpolished (rough) diamonds, was the most successful and long-lasting cartel in the world (Spar, 1994). The cartel has managed to convince consumers that diamonds are both valuable and scarce, and that they should be purchased based on quality rather than price (Hart, 2001). It was argued that only a strong core like the De Beers Group, could maintain such a hold over a complex and global industry for such a long time. On the other hand, similar cartels have not appeared in the gold, uranium, silver or oil markets, which have similar structures but no cooperation (Spar, 1994). At its peak (1996), sales through the CSO were almost US$5 billion, accounting for more than 75% of the world's rough diamond production by value. Since then, the market has evolved from an intricate weblike structure to a market open to free competition. De Beers has of late sought to adjust its role in the industry from being the overseer of the industry to acting purely as a major player in it (Gupta et al., 2010). In 2000, external events such as the decision by producers in Russia, Canada and Australia to allocate diamonds outside the De Beers channel forced De Beers to modify its model (Campbell et al., 2005; Kretschmer, 2003). Furthermore, in the wake of the increasing awareness of blood diamonds, De Beers sought to avoid the risk of bad publicity by limiting sales of its own mined products. De Beers' market share fell from as high as 90% in the 1980s to less than 40% in 2012. These changes on the supply side resulted in a more fragmented diamond market with more transparency and greater liquidity and price fluctuations. In November 2011 the Oppenheimer family announced their intention to sell the entirety of their 40% stake in De Beers to Anglo American, thereby increasing Anglo American's ownership of the company to 85% (AFP, 2011). The transaction was worth £3.2 billion ($5.1bn) in cash and ended the Oppenheimer dynasty's eighty-year ownership of De Beers (Bloomberg, 2011).

The Demand Side

The De Beers' network of marketing firms in 1893 was made up of 10 firms only (Roberts, 1987). All of the firms were interconnected by marriage and family links, and all were controlled by Jewish merchants (Pallister et al., 1988). The demand for rough, gem quality diamonds represents a derived demand (Saldern, 1990). A rough diamond is required only for the sake of its final product. Polished diamonds are traditionally purchased for three main reasons: (1) adornment and conspicuous consumption, (2) a means of storing value, and (3) as keepsakes. Generally, several of these motivational factors are present when diamonds are purchased and manifest themselves in products such as wedding related jewellery, luxury jewellery, jewellery for other occasions, and loose diamonds. It is important to note that around one-third of all retail diamond sales consist of wedding related jewellery (Paribas Capital Markets, 1996; Saldern, 1990). As a result, demand is strongly influenced by the number of marriages around the world. The purchase of luxury jewellery depends primarily on the amount of disposable income available to the customer. The demand for jewellery is affected by the price of related goods, because diamonds compete against or complement other luxury goods such as gems and fashionable clothes. The consumption of other diamond jewellery, for instance, non-wedding and non-luxury diamonds, consists mainly of casual jewellery worn by women and increasingly by men on a daily basis. The purchase of diamonds as an investment was popular in the late 1970s, when good quality diamonds reached extraordinarily high price levels (Economist, 1992). During the global recession of the early 1980s, this demand dwindled. Cut and polished diamonds rarely provide a satisfactory rate of return for an investor (Saldern, 1990). In times of uncertainty, however, diamonds still remain an important medium for capital flight, as they retain their value across international boundaries and are easily transportable and their value is relatively constant over borders (Shainberg, 1987). Currently, investment demand can be described as marginal and is not generally viable.

Our approach is a combination of historical review of the global diamond industry, to provide a context within which the more recent industry changes can be explored, followed by explication of the changes we derived from qualitative data gathered via interviews with industry participants and experts to better understand its managerial evolution. This article describes further the way in which environmental forces affect network structures and how managerial models evolve in relation to them. In particular, the aim of this paper is to understand and explain the dynamics of network behaviour and managerial evolution resulting, in part, from external forces. We begin with a review of the existing literature leading to the questions we posit as a result. A discussion of the methodology we utilized is followed by the presentation of the results of the historical review and consideration of the changes in the operating environments for the (largely) family businesses that have taken place over the last 70 years, and to explore the impacts these different environments might have on the businesses and their development. From this analysis, we discern the movement of the industry through seven distinct managerial evolutionary stages, and so illustrate the managerial model in each stage and the market forces shaping it. The paper concludes with a discussion of the lessons learned from the process and avenues for future research.

Theoretical Development

In essence, the primary philosophy underpinning modern management can be characterized as the Material-Instrumental model. The model claims that firms are purely material objects and those in them are purely instruments (Dent and Bozeman, 2014). As Bedeian (1998, p. 9) has noted, “an appreciation for the management discipline’s origins is also invaluable for understanding the implicit values and orientations of modern practitioners, as well as the inherited epistemological foundations, theoretical paradigms, and methodological strategies of today’s scholars”. Trevinyo-Rodríguez (2009) examined the evolution of internal structures of family businesses (ownership structure transitional configurations p. 296), as they manage the family, business and environmental networks in which they are embedded and respond to the key challenges of growth, adaptation of ownership structures and family conflict. She utilizes the insights of Gubitta and Gianecchini (2002) and Litz (1995) to characterize a family business as a firm in which two or more key players related by kinship, adjacent affinity or solid alliances hold a sufficiently large portion of financial capital (full ownership) or board control (controlling ownership/governance) to empower them to make decisions concerning strategic management and overall business goals, and where the family members aim to perpetuate the degree of family involvement, implying therefore, a trans-generational pursuance intention (Trevinyo-Rodríguez, 2009:285).

Organisational change management theory for small and medium-sized family managed firms is an under-researched field (By and Dale, 2008). Changing political, economic, social and technological factors can leave such unprepared firms exposed to external as well as internal pressures (Berger and Herstein, 2015). The successful management of change is crucial for these firms’ survival and success. Change is an ever-present feature of firms’ life affecting all organisations in all industries. Changes in the external environment can have a major influence on the ability of these firms’ to compete effectively. When new players enter the market, the long-standing competitiveness of SMEs that are unprepared for change can be undermined. We believe that change management needs to be at the heart of the strategic management process. Managers need to understand the strategic framework within which the firm is operating. This includes a full understanding of the firm’s existing strengths, weaknesses, opportunities and threats. Furthermore, the process includes identifying the change agent be it internal of external to the industry.

This definition provides a vibrant statement about the classes of firms in which we are interested in this study. Using a comparable definition, Kreiser, et al (2006) pursued to better understand the strategic method that occurs within family firms, by way of an intergenerational and intercultural case study analysis of the historical development of the growth strategies of four family firms in the USA, Finland, and Sweden. We too will be utilising a case study approach, albeit with one industry and one country. Two further important points Kreiser’s, et al’s (2006) findings highlight are, firstly, that throughout their evolution, the strategies enacted by the family companies appear to have been formulated with two issues in mind – financial security and control of the firm within the family unit – and, second, the different ways in which competitive market pressures influence the companies’ strategic postures, depending on the stage in the company life cycle.

The aptitude of a firm to modify its strategy in line with evolving and changing internal capabilities and environmental conditions is a crucial outcome (Brunninge et al., 2007). The unification of ownership, the focus of ownership, and management lead to managers being exposed to fewer pressures from outside stakeholders who demand transparency, accountability, and strategic renewal. Ownership concentration among the top management of the firm can lead to risk aversion and lack of preparedness to engage in strategic change doings such as corporate diversification, product innovation or entering new international markets. Strategic change typically involves taking risk. The concentrated nature of ownership places closely owned firms at a disadvantage in terms of risk bearing and promotes strategic inertia. Moreover, in closely held firms, owner-managers typically develop the strategy at the founding of a firm. Due to their personal involvement, this commitment to the strategy often continues over time leading to unwillingness to change the original strategy.

McNaughton's and Green's (2006) analysis of the relationship between corporate ownership and market structure utilized resource dependence and transaction cost analysis in organizational theories. These theories explicitly focus on the structure of the relations that define a market and attribute variability in firm performance to the ability of corporations to adapt to those relations (Burt, 1988: 357). The resource dependence literature characterizes industry structures as dense but ever-changing networks of interdependent companies, each competing for positional advantage in relation to their environment and each other, by gaining control over resources (Glasberg and Schwartz, 1983). Transaction cost analysis theory predicts that firms seek to gain control over resources where there is environmental uncertainty, high risk of opportunistic behaviour and high costs of monitoring and enforcement (Williamson, 1975). In terms of the behaviour of the firms themselves, this includes mergers that internalize resources, and diversification and conglomerate strategies to decrease dependence on a particular set of resources. Both theories argue that businesses are restricted in their autonomy by structural dependence on the inputs and outputs of other businesses, or to put it another way, by their place in the value chain (Walters, 2012). While not explicitly focusing on networks, Porter (1980) suggests that external forces can influence relationships within exchange systems. To the extent that a key element of this analysis is the impact of changing environmental contexts on organizations, it is also entirely appropriate to make reference to the systems thinking of the environment school of strategic management, and the work, for example, of Ansoff (1957; 1965) and Emery and Trist (1965).

Throughout history, external forces have affected the infrastructure of the diamond industry and changed its strategic direction and market structure. One must be familiar with the industry's origins and the effect of external forces on its workings if it is to be better understood and researched. Given that industry structures evolve constantly and alter their managerial models in light of internal and external changes, so a more comprehensive, longitudinal investigation of the industry is warranted. In examining the Israeli diamond industry as a case study, the contribution of this paper is to consider the changes in the value chain that have taken place over the last 70 years as different operating environments for the (largely) family businesses, and to explore the impacts these different environments might have on the managerial models. An important additional element in the mix is the evolution of the diamond industry from a trust based or socially based industry to a more impersonal, standardized industry.

Methodology

The research focused on the firm and its management as the primary context in which to explore the relationship between the choice of the strategy and environmental change. We claim that in small firms the study of change should be focused on the owner–manager, who is at the core of the change processes. Interestingly, change management was argued to be equivalent to crisis management in many situations, and it was also reported that changes more often than not came about as a reaction to a situation rather than being proactive initiatives.

Information pertaining to this research was gathered through extensive research amongst diamond companies, access to who is notoriously difficult. Face–to–face interviews with 100 managers in the Israeli diamond industry were conducted building up step by step a behavioural picture of the diamond industry, its operations and networks as it unfolds over time. Since one of the world's main centres for the diamond trade is based in Israel, and it being one of Israel's key export industries, the study focused on polished diamond exporters located in the Israeli Diamond Exchange. The population of Israeli polished diamond exporters comprised of around 900 polished diamond exporting firms, of whom 190 firms were defined as official Israeli diamond exporters. The Israeli Ministry of Industry and Trade – Diamond Division defined an official diamond exporter as one who officially export $4m and above of polished diamonds a year. A database of polished diamond exporters was built after examination of all available sources of information.

Following Brand and Slater’s (2003) argument that in business research, qualitative work should precede quantitative testing, we used a case study approach to shed light on the structural factors that affect business in the Israeli diamond industry (see also Burgelman, 1983; Eisenhardt, 1989; Robertson, 1993, Welch, 2000; Zhang, 1994). Case study research is useful for focusing on understanding the dynamics present within specific settings (Eisenhardt, 1989) i.e. the diamond industry. Through interviews with key players, we aimed to elucidate the various forces at work in the industry and examine the dynamics between them. The interview stage provided key information on the intricacies of the mutual relations that would have been hard to capture in a closely structured research instrument or questionnaire. To complement the fieldwork, we collected data from journals, books, industry magazines, official government data and interviews with government officials. The case study approach to theory building was therefore used to develop our holistic view of the evolutionary transformation of the industry (Eisenhardt, 1989; Yin, 1994). During the interviews, we applied an open-ended interview protocol. Open - ended interviews are widely accepted as an appropriate technique for gathering data on cultural issues, especially when hard data are difficult to come by and the research is exploratory in nature (McCracken, 1988). Open-ended questions allow interviewees to elaborate on cultural and managerial issues as well as the managerial mechanisms relating to conducting business in the industry. The interviewer requested supplementary information when a theme was unclear or incomplete and supplemented the prepared questions as needed to obtain more accurate and in-depth responses. The researchers emphasized to all respondents that their comments would remain anonymous. All interviews were transcribed and due to the secrecy of the industry none of the respondents were willing to be recorded or directly linked to a specific quote.

Extensive interviews were conducted with the respective managers of 100 firms out of the 190 (53%) official diamond exporters, which represent 56% of the total official Israeli polished diamond exports by value. The interviews ranged from 3/4 of an hour up to 4 hours in length depending on the level of co-operation the researchers got. Based on industry experts and the Israeli Ministry of Industry and Trade, the sample was divided into the four groups by size of their polished diamond exports in US dollars. Group one consisted of 8 firms with exports exceeding US$50M. We sampled 7 firms covering 88% of Israeli polished diamond exporters in this category. Group two consisted of 26 firms who export between US$20-50M of polished diamond exports. We sampled 20 firms covering 77% of this category. Group three consisted of 41 firms who exported polished diamonds between US$10-20M. We sampled 20 firms making up 49% of this category. Group four consisting of 115 firms exporting polished diamonds between US$4-10M. We sampled 53 firms constituting 46% of this category. The researchers operating from offices in the Ministry of Industry and Trade proved to be a catalyst to obtain interviews and examine otherwise unattainable sources of information. However, achieving the trust needed for access through governmental institutions such as the Israeli Ministry of Industry and Trade, the Diamond Controllers Office and the Israeli Diamond Institute was a gradual process that took more than a year to formulate. The sample limitation was achieved as a result of time allocation and the need to interview the various firms building up the industry. Once redundancy in the information attained was achieved the interview process was stopped. The sample characteristics as well as the distribution of the study sample and the research coverage are presented in tables 1 and 2.

Insert tables 1 and 2 about here

The Seven Managerial Stages

Based on the qualitative data we gathered from interviews together with data from Israeli government, industry and academic sources we built the managerial evolutionary process of the industry and linked it to external events that were in many cases the catalyst for change. We can see the rationalization of the industry has forced the managers to evolve from trust or social models of exchange to more rational ones structured around arm's length models of exchange. It is important to note that as the managerial models changed in the Israeli diamond industry filtered to the rest of the industry, leading to global managerial change and the emergence of new managerial standards. In the current section, we included and highlighted some key quotations that were taken from the interviews in order to bring the readers the atmosphere of the managerial changes that took place in this seven stages' model. Hence, the seven managerial stages model including a unique combination of academic sources as well as first sources information. The stages were constructed on external forces that forced managerial adaptation.

STAGE ONE: PRE 1940s *– Socially based network model of exchange*

The ingathering of Jews to the land of Israel galvanized the formation and spectacular growth of the Israeli diamond Industry. The socially embedded relations and social contacts that have always been important features of Jewish daily life (Ganitsky, 1989; Mannheim, 1984; Patt-Shamir, 2006) played a key role in this development. From its inception, the Israeli diamond industry was an industry devoted entirely to export. Diamond clubs sprouted up in Israel and polishing diamonds provided a decent living (Shainberg, 1987). Israeli polished diamond exports were largely targeted at American consumers (Economist, 1992; Spar, 1994), to a large extent because of the Jewish connections with their communities overseas. Initially, social networks made selling polished diamonds for the Jewish diamantaire relatively easy (Shainberg, 1987; Shor, 1993). Before World War II (1939), Jewish diamantaires lived in close proximity as a result of the high degree of uncertainty in daily life in Palestine (Forem, 1997). The managers we interviewed who were active at the time claimed that in those days, if they did not help themselves and each other, no one would (a type of altruistic behaviour). Indeed, many managers claimed that their initial success during the 1930s and 1940s was attributable to global and highly networked family ties.

The development of the Palestinian diamond industry led to the formation of the first managerial model discussed in this paper, which was based on the CSO's marketing and selling framework. Foreign polished diamond buyers came to Palestine to purchase polished diamonds. Most exchanges were conducted through intermediaries who helped certify the exchange partners and extended family members (Gulati, 1995). They showed the foreign diamantaires an assortment of polished diamonds in a "box". The foreign buyers were forced to purchase the entire contents of the box or none at all, so they could not select specific diamonds from the box. This lead to a model based on the average quality versus the average price of the lot. This was a very similar model undertaken by DeBeers when it sold rough diamonds to sight holders. The Palestinian diamantaires presented a number of boxes that the foreign buyers could choose from, at varying prices. As opposed to the managerial rules of the CSO, negotiation on the price was more readily acceptable. However, if a buyer reneged on an oral agreement or negotiated too hard over the price, no one would ever deal with him again (he would be cast out of the network). Interviewees claimed that one specific polished diamond might have made the entire transaction profitable. On the other hand, the foreign buyer may have purchased the box simply to build trust for future exchanges. Thus, relationships built on the mutual understanding of helping each other out evolved, or reciprocity, over time through ongoing exchanges. As one of the interviewees noted:

When you dealt with a broker or customer that you did not know well, it could be a problem. If things went wrong, only God knew what could happen. With someone I knew, problems could be solved internally and quickly as it's a cash business... I keep long term and friendly relations with my suppliers and customers as that's the only way to become important, and if you are not important, you are not shown the stones first or get the best price".

Given the problems with cash flow, in the Palestinian diamond industry, payments for polished diamonds were based on cash before delivery (CBD), cash on inspection (COI), or cash against box (CAD) in the country of origin. The increased demand for polished diamonds throughout the world, especially based on social business networks, pushed foreign buyers to come to Israel despite the high costs of transportation to the country. Having made the investment, these foreign buyers were under a great deal of pressure to actually purchase diamonds. Furthermore, there were the time constraints of the visits. The interviewees claimed that these facts helped close deals quickly. The steady supply of rough diamonds at competitive prices provided by the CSO as a result of De Beers' interest in creating a strong diamond industry in British-ruled Palestine also helped build the industry. This help came at the expense of rough diamonds that normally would have been allocated to other diamond centres. The motivation and specialization of the Palestinian diamond industry established by Jews who came from Europe to Palestine out of ideological inclinations made it an economically attractive industry at the time.

***STAGE TWO: 1940s - 1950s** – The resource based view of managing diamonds*

As diamond centres in Europe fell under Nazi control during World War II, the demand for polished diamonds from Palestine increased. Given the increased demand and increased stocks, the CSO increased rough diamond allocations to Israel at competitive prices (Pollak, 1975). The resource-based perspective emphasizes firm-specific capabilities and the creation of dynamic capabilities to exploit internal and external firm-specific competencies to compete in changing environments. In 1940 the Palestine Diamond Club was formed (Shor, 1993) to strengthen the industry's capabilities. This was the first step in the formalization of a coherent organizational structure that pushed Palestinian diamantaires to conform to specific rules, norms and values (Forem, 1997). Space and security problems within the Israeli Diamond Exchange necessitated a new and enlarged diamond complex. Interviewees claimed that what the industry leaders at the time envisioned was a self-contained structure that provided providing all of the facilities necessary for the trade in diamonds. Diamantaires wanted a diamond exchange with a trading floor and office facilities, complemented by offices, governmental agencies, shipping facilities, insurance, legal and accounting services, banks, restaurants, travel agencies and gemmological laboratories, all under one roof. These leaders believed that polished diamond buyers globally would be lured by the prospect that within a single secure environment they could find everything they needed. In addition, industry experts anticipated that as a result the exchange would also prompt other international diamond firms and customers to reallocate diamonds to Israel. The managerial model of the period was still strongly embedded in family based social networks. As the following quotation illustrates, the better the ties, the better the price:

"If two diamantaires brought the exact same polished diamond to me, I might pay up to 5% more to the one I feel more comfortable with – it's more to encourage him to come back and help him out".

In addition, another manager noted that during this period of time:

"

As the organizational structure of the Israeli diamond industry matured, some Palestinian diamantaires were able to develop relationships with new customers who came to buy in the new central complex, as opposed to using intermediaries and going around to geographically dispersed firms".

As a result, this managerial model increased competition because the buyer could shop between various diamond firms in a relatively short span of time. Hence, the buyers could move easily, compare prices and product range but were still under time and expense constraints.

***STAGE THREE: 1950s - 1970s** – The knowledge based view of marketing diamonds*

Following the end of World War II, Holland and Belgium began to reconstruct their diamond industries (Bruton, 1981; Paribas Capital Markets, 1996). With the withdrawal of Britain from Palestine in 1947, full-scale war erupted leading to the formation of the state of Israel in 1948, which destabilized the diamond industry in Israel. The Israeli diamond industry had to compete once again with other diamond centres while trying to keep existing customers. The competition was based on managerial knowledge and connections. The knowledge-based view focuses on the acquisition, internal development, accumulation, exploitation and diffusion of knowledge-intensive organizational capabilities. A new diamond complex, complementing the existing one, was constructed in 1969. The mass immigration from Europe after WWII brought much needed managerial knowledge, experienced workers, and networked diamantaires to the country strengthening the industry's knowledge based advantage over other centres that were in the process of rebuilding themselves. As a result of the positive outlook for the diamond industry as a whole and the strong position of the Israeli diamond industry, Israeli diamantaires started taking even larger risks than in the past. Until the late 1950s managers still relied heavily on family ties to market their polished diamonds, an approach that began to limit the growth of the Israeli diamond industry demanding managerial rethinking. One of the interviewees noted that:

"As the new generation of managers inherited and set up businesses, introduced new cuts of diamonds, and implemented new managerial models, the evolution of the diamond industry continued. The structural changes and entrepreneurial nature of the Israeli firms led to the influx of new customers and the introduction of new trade".

Business networks were enlarged to include customers who were not necessarily Jews or related through family. This further eroded socially networked based managerial models and transformed them more and more to arms' length models of exchange. This enlargement of the marketing network demanded a change in the managerial mindset and in the existing exchange model. Stage three evinced increasing flexibility relative to its predecessors. Each "box" had a price per carat (US$/C) based on the polished diamonds it contained. The range of polished diamonds was homogeneous in quality, colour, cut, clarity and within a certain carat range. The foreign buyers could pick and choose those polished diamonds that were best suited to their needs and paid only for those polished diamonds that were chosen at the price quoted on the box (US$/C). Then, they could pick and choose diamonds from another box that had a different assortment of diamonds on the 4C scale with a different price attached (Freedman, 1980). However, despite these changes, at this stage the principle managerial models were still fundamentally based on socially embedded ties but in extended networks resulting in more frequent problems of exchange enforcement.

***STAGE FOUR: 1970s - 1980s** – Marketing management in full swing*

Management strategy came to rely progressively more on statistical analysis of market research and market segmentation strategy was consistent with the thinking of customer orientation. By the mid-1970s, the discipline of strategic design was in full bloom. Many key notions from marketing, such as consumer orientation, positioning, and market segmentation, were accepted and endorsed aggressively in the diamond industry. Throughout the 1970s and 1980s, the marketing discipline continued to stress the development of enhanced methodological sophistication and analytical rigor.

Stage four, the 1970s and 1980s, represented a time of relative growth in the Israeli diamond industry and stability in the industry with strong backing from the Israeli government and the banking system. However, increased competition from other diamond centres and security problems in Israel caused foreign buyers to be wary about coming to Israel (Saldern, 1990). Fierce internal and external competition complemented by a decline in the number of customers coming to Israel, demanded that the existing managerial model be aligned with the business environment of the time. The environmental situation put pressure on the diamantaires in Israel to find customers outside of the

Israeli diamond exchange, leading to a need for a more active approach to the marketing of diamonds. One of the interviewees described well this stage. He emphasized that:

"in this time, boxes with polished diamonds were sent to highly trusted customers, so they could pick and choose as if they were in Israel. The problem with this managerial model was that the buyer was under no pressure to buy and could more easily compare prices, and the personal touch was missing".

As the interviewees claimed, the diamond buyers could "sleep on their decisions" and were not under pressure to purchase polished diamonds. Furthermore, as a result of the enlarged business network, fraud was becoming more prevalent, leading to huge losses. The value of the polished diamonds in the eyes of the diamantaire changed as a result of the change in the atmosphere in the physical location of the transaction. Diamond sellers maintain that the mood, light, smell in the room and one's imagination are all fundamental parts of the value of polished diamonds and precious stones. During this period, trust was strained to its limits, and fraudulent behaviour flourished when the "box" was in another country and out of the immediate reach of its owner. The strong degree of mutual interdependency of the firms within the industry caused a chain reaction in which the bankruptcy of one company as a result of fraud led to the failure of other firms, undermining the stability of the industry.

STAGE FIVE: 1980s – 1990s *– The rationalization of the industry.*

The global diamond industry, based for generations on socially based models of exchange, founded on trust and reputation, received two external shocks in the form of the publication of the Rapaport polished diamond price list and the formation of the GIA (Gemmological Institute of America), which certified the quality of polished diamonds. The price list standardized a large part of the diamond industry in the sense that a diamond on the 4Cs scale now had a price based on a price list available to all who wanted it. The list removed some of the mystery surrounding diamonds and standardized the industry, creating new opportunities and threats in an environment of increased transparency and fewer barriers to trade. In the wake of the price list's publication, the pricing power within the diamond industry diminished. The existence of the price list reduced the need for industry specific knowledge, allowing new "external" managers who were interested to engage in the trade to enter until recently, a closed industry with high entry barriers. The GIA standardized the industry even further by issuing quality certifications based on the 4Cs scale that could later be priced with the Rapaport price list, increasing transparency and decreasing needed managerial knowledge. This decreased the need for managerial models based on networks that demanded from managers a new managerial mindset.

The insider/outsider paradox has been taken to its limits, reducing collective cohesion and eroding individual participants' sense of security (Berger and Herstein, 2012). However, since 1980, the industry has responded defensively to its competitive, economic and legal landscape, escalating the negative effects of the paradoxes and compelling itself into a sustained decline in the effectiveness of socially based managerial tools (Mostovicz et al., 2007). The 1980s also brought increased competition from other global diamond centres such as the new centre in India and the well-established centre in Belgium (Berger and Herstein, 2015). Pressure from Israeli banks to increase collateral and call in loans forced Israeli diamantaires to become more aggressive. As their hefty debts and interest payments ballooned, they became increasingly desperate to get rid of polished diamonds (Even-Zohar, 1997). The high level of returns from fraudulent behaviour, the desire to survive, and the standardization of the industry undermined the confidence that mutual exchange partners would refrain from exploiting each other's vulnerabilities. All of these factors led to the further degradation of socially based managerial models and to the start of the rationalization of the industry, based on arm's length managerial models common in most other industries. Emblematic of this change was the new demand for written as opposed to verbal contracts, which increased transaction costs and helped the tax authorities collect the money owed to them. The following quotation from our fieldwork illustrates this trend:

"No company, no matter how good its relations with its customers and suppliers, was as important as the end price of the diamond. Price at the end of the day would close the deal not friendship! ... Diamantaires would sell their mothers if there was a profit to be made from it!".

Managers needed to become more pro-active than ever before. Therefore, for the first time, they actively searched for buyers en masse and created new markets outside of the known diamond centres. Given their need to sell quickly at good prices and prevent fraudulent behaviour, they could no longer just send the "box". The situation had reversed, and now it was the sellers, not the buyers, who bore the transactional costs of transportation and time constraints, which further eroded prices and profitability.

***STAGE SIX: 1990s – 2000s** – The globalization of management*

The liberalization of trade restrictions and financial deregulation in Israel and the world during the 1990s increased the mobility of capital (Berger and Herstein, 2012). Many of Israel's diamond managers moved large parts of their operations to low cost centres to be competitive globally (Shor, 1993). As a result of the standardization of the industry, the Israeli government began clamping down on tax evasion, and banks were reluctant to give generous credit lines. Managers relied more on written contracts and the court system to reduce uncertainty. These impersonal tools reduced the need to invest in building social relationships, managerial models that demanded huge financial and time investments. Indeed, the distinctive competitive advantage based on social managerial models, for the first time, became a liability as it limited who one could exchange with (Berger, 2014). The following quotation from our fieldwork illustrates this trend:

"The information that in the past had been a highly valued secret now flowed freely through the Internet, transforming the industry to a more transparent industry rendering socially based managerial models obsolete. Firms could now post the polished diamonds they had for sale online, at prices based on the Rapaport price list and certified by the GIA. Such transactions made the personal touch that had once been so important a thing of the past".

New, better-educated managers engaged in the pro-active marketing of diamonds through the Internet, leveraging this tool for selling in the new competitive landscape. In an effort to draw foreign diamond buyers back to Israel, in 1996 the first diamond exhibition in the country was launched under the banner of "Israel the Source". In 1993, the first Israeli magazine devoted to the diamond industry called "Yahalom" was inaugurated. Buyers and sellers began advertising their supply and demand needs globally using vehicles such as the Internet, magazines, and exhibitions. These industrial changes led to the conventional marketing approach common in many other industries that is based on standardized, impersonal practices rather than trusted social ties.

***STAGE SEVEN: 2000 – Today** – The age of e-diamond management*

Firms presently compete in an intricate and dynamic environment transformed by the flow of, and need for, instantaneous information. Knowledge is increasingly becoming the most valuable resource for managerial decision making. The influence of technology and globalization increasingly the need for firms to acquire information, create knowledge and innovate in order for them to competing successfully. The currently forming discontinuities and dominant designs of strategic management will in the future stress individual and organizational capabilities to learn and innovate. This managerial trend has fully transferred the diamond industry to an arm's length industry and the dissolvent of DeBeers as the custodian of the industry.

The decade began with the elation of the new millennium and ended with a global economic crisis that threw the net turnover of the Israeli diamond industry back 10 years, to the same level as

1999. As a result, De Beers decided to brand its diamonds, and forward integrate into polished diamond trading, in order to compete with other producers such as Australian Argyle and Canadian BHP that were not under De Beers' control (Sheintal, 2010). The diamantaires soon realized that if De Beers were offering brand diamonds, they could do the same. Managers adopted the new trend and invested more in marketing introducing into the industry dozens of brands, special cuts, trademarks, and registered diamonds allowing for differentiation.

After 9/11, sensitivity to the financing of terror and money laundering worldwide rose to unprecedented levels. The U.S. Patriot Act, intended to prevent money laundering for the purpose of financing terrorism (Berger and Herstein, 2015), had a direct impact on the diamond industry. Labelling the world diamond industry as vulnerable to money laundering and financing terrorism, the act imposed severe restrictions on buyers and sellers of diamonds, precious stones, gold, and silver. In the 1990s the U.S. government, led by the Departments of State and the Treasury, began exploring ways of restricting the trade in blood diamonds, diamonds that originated in conflict areas and were mined at an extreme cost to human life. These efforts culminated in the Kimberley Process, a comprehensive international program launched in 2002, aimed at eradicating the sale of such diamonds that made the industry and trade within it more transparent and open to scrutiny (Spar, 2004).

On the supply side, not even the steadiest of cartels have been wholly immune to change. Over the past decade, the diamond trade has faced the end of apartheid in South Africa, the fall of Communism in Russia, the opening of many new mines, the fight against terror and money laundering, and the emergence of a worldwide movement against so-called "blood" or "conflict" diamonds. All of these developments have changed the diamond industry and required the diamantaires to transform the nature of their work. While a diamond may be forever, as the De Beers advertising claims, the cartel itself has also adapted its role from being the custodian of the industry to acting purely as a key player, thereby dismantling the cartel network that controlled the industry for over two centuries. This change led to the seventh stage based on free competition and marketing strategies both on the supply and demand side.

Where is the Diamond Industry Headed?

Management theory evolves continually with new ideas that come from the attempts to transform theory into practice. Appreciating its history is a fundamental step for identifying the problems and sources of such paradigms. Managers often pay no attention to the importance of understanding the management history since they are more disposed to pay attention to actions occurring in the present. To disregard the progress of management throughout history is to risk repeating the same mistakes. Firms working in competitive environments are continually trying new ideas in-order to manage an increasingly complex business environment. They now understand that keeping in touch with and developing new knowledge is key factor in assuring their survival. The evolution of management theory mirrors the changes in the economic and social environments. Competitive advantage will increasingly be more difficult to define, for it will be based on speed, innovation, service and customization as well as volume, scale and low cost. Established firms cannot exclusively compete with sustaining technologies, because new entrants typically invade their markets with disruptive technologies.

Many managerial theorists argue that firms and managerial models can be understood as planned mechanisms that use various strategies for adapting to environmental change in pursuit of their goals (Berger and Herstein, 2015). Adhering to past managerial models in the face of changing market environments and customer demands can destroy a company's competitive advantage. We believe that some of the inconsistent and weak findings in previous research on managerial behaviour in the diamond industry may be due, in part, to the failure to consider the role of the environment and strategic choice on the firm's managerial strategy. Heightened competition is changing the structure of many industries, and the diamond industry is no exception. De Beers led the industry for over a century, ensuring that its stakeholders, be they producers or buyers, were satisfied. Its role was to guarantee stability in the market. Its strategy was to maintain the illusion that diamonds were scarce.

Changes in the external environment have been so significant that recently De Beers decided to relinquish its role as the custodian of the industry. No cartel in history has been able to extend its influence as broadly or for as long as De Beers, making it the most successful and long-lasting cartel in the world (Spar, 2006).

Historically, the diamond industry has implemented a flexible and opportunistic culture under the protective umbrella of De Beers (Mostovicz et al., 2007). Product familiarity and membership in the diamond centres have been deemed more important than managerial competencies leading to a strong sense of cohesion, but also of complacency. This led to managerial neglect and a failure to build robust intellectual property, processes, management systems, which would justify a premium within the wider market. Over time, the relationship with the outside world has become more complex, demanding a wider managerial skillset. Two managerial models based on strong interpersonal trust characterize the family business networks that dominated the diamond industry for a long time. First, these managerial models developed reciprocity based trust in which a member of the community offers to help another for the greater good of the collective. Such behaviour is evident in stages one to three presented in this paper. The managerial models are based on moral obligations but also in the fact that the social standing of a person within the wider network does not depend on individual performance but rather on the family. With a further evolution of the industry, a second type of managerial models emerged, characterized by enforceable trust, meaning that the deviant actions of network members would be sanctioned by the members of the network, thereby enforcing the compliance of shared norms. Networked members put their trust not only in close family members but also in the whole community. As stage four illustrates, outsiders would not be in a position to benefit from these trust-based relationships. However, over time, these dense family managed networks that had been key to the early expansion of the business and industry became a liability (Berger and Herstein, 2012). As stages five to seven demonstrate, to become more competitive, the firms had to look outside the network and adopt a more impersonal, standardized managerial models to doing business.

As trust declined in the industry, managers increasingly were unwilling to take risks. They demanded greater protection against the possibility of betrayal and increasingly insist on costly sanctioning mechanisms to defend their interests, thus feeding the cycle of mistrust. The rational based managerial models recognizes that declining trust in exchanges increases transaction costs because those involved must take actions to protect themselves and guard against the possibility of the opportunistic behaviour of others (Bernstein, 1992). The cost of such actions may - or may not - be offset by more efficient exchanges. How do we analyse and evaluate the role of trust? In many cases in economics, anonymous exchange is used as a starting point for analysing competition. However, in reality, one often takes into account social structures and social relationships when analysing competition. The global information environment may prompt a further restructuring because this change has lowered the barriers to entry, minimizing the role of trust in the diamond trade. This is a major transformation from one extreme, the socially embedded trust-based exchange, to another, that of impersonal ties. This change is illuminated by a quotation from one diamantaire we interviewed:

"It is only natural that the younger generation should see things differently from their elders. A person with extensive experience may sometimes hesitate to try a new technique or novel approach because of the very experience ... our fathers grew up with their firms, and their management approaches were relevant for that time ... the younger generation has been trained in different frameworks, in secondary school and in the army, where we learned new approaches to business and management".

Over the next decade the diamond industry will face a new wave of challenges – from synthetic diamonds, from small-scale producers and from possible turnarounds in consumer sentiment. Any one of the developments discussed in the paper could potentially destroy the history of stable high prices and the scarcity of polished diamonds, a point for further scrutiny. It will be interesting to examine the environment's future effects on the industry and the illusion of scarcity.

Will consumers continue purchasing diamonds in light of the blood diamonds scare and fraudulent behaviour? Will the diamond industry, leaderless without De Beers at the helm, be able to retain the mystique around diamonds that De Beers developed? Will there be an oversupply of diamonds in the market, reducing their prices and giving customers the feeling that they are not getting value for their investment? Diamond prices cannot remain artificially high if consumer tastes or fashions change or if incomes suddenly decrease. The answers to these questions will determine the future of the industry.

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Age	**20-29**	9
	30-39	16
	40-49	46
	50+	29
	Average	**44.94**
Sex	**Male**	94
	Female	6
Education (Years)	**Up to 12**	71
	13-15	24
	Over 15	5
	Average	**12.39**
Family Firm (Generations in the Diamond Business)	**0**	51
	1	7
	2	36
	3	5
	4+	1
Time in Business (Years)	**0-9**	14
	10-19	25
	20-29	41
	30+	20
	Average	**21.15**

Table 1: Sample Characteristics (N=100)

Group (Export in US$m)	No. Sampled	Size of Population	% Coverage
S 1 (50+)	7	8	88
S 2 (20 - 50)	20	26	77
S 3 (10 - 20)	20	41	49
S 4 (4 - 10)	53	115	46
Total	100	190	53

Table 2: Distribution of the Study Sample and the Research Coverage

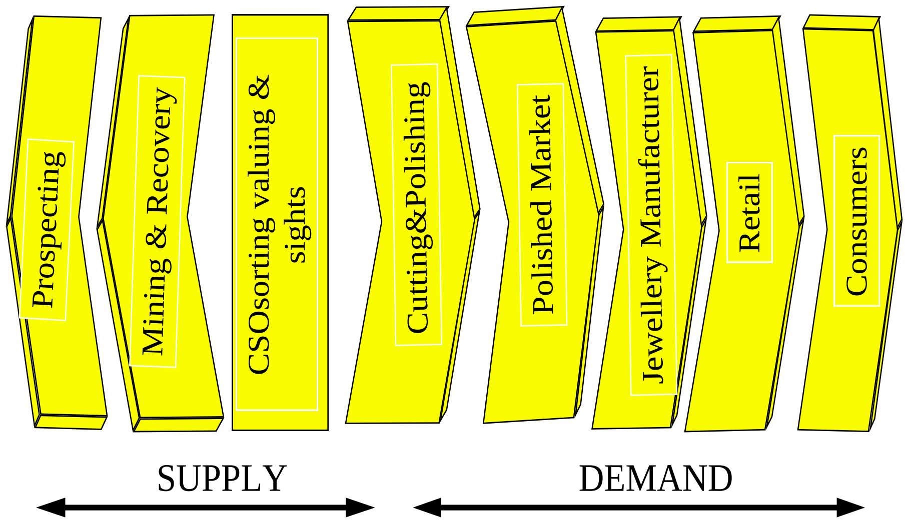

Figure 1: The CSO Diamond Value Chain