Value maximisation strategies for high-tech firms: managing growth across borders

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Abstract: In the present study, we aim to evaluate the growth strategies in terms of internationalisation and business scope expansion for high-tech firms operating in the technology industry. Our paper focus on the dynamic nature of growth and market dominance based on the management insights from a global oligopoly. Our research problem is what are the value maximisation strategies for high-tech firms to manage growth? We will elaborate on the concept of growth and detail some of the aspects in managing growth by formulating a framework for achieving market domination. The scope of our study takes into account the evolution of oligopolies and the technology industry. As a result, growth strategies that well address the firm structure as well as the surrounding environment are decisive in gaining market dominance. The agile use of strategic alliances is found to be one of the most effective means of growth when entering foreign markets.

Keywords: growth; internationalisation; business scope expansion; strategic management; innovation.

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1 Introduction

As a result of globalisation, high-tech firms often face stringent challenges to grow their business where competitions for market share are intense (Ruzzier et al., 2006). In the present study, we aim to formulate a framework for established high-tech firms to manage growth when entering the foreign markets. In this case, the goal of growth is to enable firms to profit maximise and secure market domination as measured by their market shares. Specifically, in the technology sector, the profitability level of the industry tends to be concentrated on a few large players that have managed to grow more successfully than their competitors. Therefore, our research problem is formulated as follows: what are the value maximisation strategies for these high-tech firms to manage growth?

In the present study, we will categorise the development of high-tech firms into different stages and identify the different aspects of managing growth for these firms via an empirical study based on the interview results from the Oracle Corporation. We define growth in accordance to the previous literature to be an increase in the production units via different modes of entry (Berry, 2015). In this case, growth refers to both internationalisation and business scope expansion. By internationalisation, according to the previous research, this refers to a process of an increased concentration of local assets via effective management practices (Knight, 2015). Internationalisation also includes acquiring new market niche in a foreign country. By business scope expansion, previous literature has defined it to be innovations in the extant business practices, processes and production that result in a level of growth (Xia, 2015). In this paper, by a value maximising strategy, we refer to the economic activities and business plans that are aimed to capture the value generated by growth. Growth is then manifested as a result of an increase in the market share as well as an increased level of business value, which is the reflected in the firm's financial performance. A high-tech company is said to be in a dominant position when the company is the market leader in the industry having the largest market share compared to its competitors. This market is consisted of numerous industry segments, each identified by the specific characteristic associated with the product offering.

We have structured our study as follows. First, we will present the growth theories based on the previous literature in order to lay an outline for our subsequent analysis. In the empirical part of our analysis, we aim to establish a strategic framework for managing growth via an internal analysis of the firm's operations in order to understand the underlying constructs. It is acknowledged that the scope of this study is case limited. We will conclude our study by discussing the implications of our results and open up new research opportunities.

2 Theories in growth

First, we will define the concept of growth based on the previous literature. We will limit our discussion to growth theories in terms of:

1 internationalisation

2 business scope expansion, we will identify and evaluate the factors that affect both internationalisation and business scope expansion based on the previous literature.

Therefore, the theories presented in this section lay a firm foundation for the empirical analysis presented in the subsequent sections.

2.1 Incentives behind growth

One of the incentives behind growth is the need to enhance knowledge development and to exploit established networks for financial purposes (Ahokangas, 1998). In other words, firms grow in order to seal their knowledge gap in line with the market demand forming business liaisons with important players in the same industry. One of the other incentives behind growth is to expand and reinforce sales capacities. In this case, a strategic alliance necessitates a shared business culture, goals and objectives along with openness and mutual trust so that the different business functions could work together with the common goal of gaining a competitive advantage in the industry (Johnson et al., 2008). As firms establish their market positions in relation to their competitors, each firm is strongly dependent on the other players in the value network (Xia, 2014). As an example, small firms trade and acquire information with one another through their social network, which leads them to imitate each other's business practices resulting in a high level of competition in the given market niche (Bonaccorsi, 1992).

Growth occurs via the acquisition of assets and market shares where one firm acquires the assets of another firm or buys the equity interests of another firm with or without liabilities (Eshima and Anderson, 2016). In this case, some of the risks that arise when managing growth include country risks, political risks, financial risks, interest rate risks and currency risks especially during currency fluctuations under a floating exchange rate. One of the primary goals of growth is to achieve economies of scale so that fixed costs can be spread over a higher volume of production (Myers and CEcD, 2015). One of the other goals of growth is to achieve a first-mover advantage and market dominance via for example predatory pricing strategies. In this case, a firm makes an initial move to a new market niche with the aim to gain access to resources and capabilities that a competitor cannot match (Xia, 2014). However, at the same time, firms which make an initial move to a new market niche may also face invisible market barriers to entry. In reality, these firms may attempt to enter to a new market niche that initially appears attractive. Yet, once invested, these firms may be continuously operating at a loss due to a high level of entry and exit costs along with a high level of market uncertainty. Therefore, managing growth is about managing change and overcoming the related resistance while taking a high level of risks (Bessant, 2007). Managing growth is also about managing market expectations so that sufficient and relevant information about the firm's customers, competitors and suppliers reveals the potential for growth.

2.2 Means of growth

Internationalisation is defined, according to the previous literature, to be the geographical expansion of economic activities over a national border via means of resource accumulation, market penetration and integration (Ruzzier et al., 2006). Here, a firm starts with being domestic and move on to form strategic alliances with other players in a foreign country. Firms can also grow via means of direct or indirect export, foreign direct investment, franchising, license agreement, joint venture as well as mergers and acquisitions. Previous research results have shown that internationalisation allows a firm to access and develop production processes and capabilities in ways not possible in its home country (Johanson and Mattson, 1993). In this case, some of the important factors to be considered in internationalisation are the dynamics of entry, foreign market selection, marketing-related activities and time of entry (Brush et al., 2002). Managing growth in an efficient manner results in more job opportunities for the locals, a higher entry barrier and a stronger market power over suppliers and customers (Äijö et al., 2005; Wenyun and Roberts, 2001). In this case, managing growth requires investments and additional resources, such as personnel skill and the IT infrastructure.

As shown previously, a firm can grow to a foreign country by selling its products in the foreign market and form strategic alliances in order to open up new market opportunities. In other words, firms can cooperate with the local firms to narrow the knowledge gap. The entry mode and the pace of growth largely depend on the firm's mission and its overall vision. Once the firm has moved its operations abroad, marketing becomes of vital importance in order to raise consumer awareness (Demir et al., 2016). The firm's market share may fluctuate unpredictably, as there is a high level of market uncertainty. It can fight competition via innovation and by offering various product versions. Then, when the market shares stabilise and the subsequent entry-level to the market becomes higher, there will be an increasing amount of effort needed to improve the production processes (Klepper, 2001). Once the industry standards are established, the number of firms competing in the market drops and the existing firms may shift their attention to invest in quality.

One of the most effective means of growth is to form strategic alliances and inter-organisational ties (Demir et al., 2016). These inter-organisational ties may take the forms of joint ventures, buyer-supplier partnerships and mergers. Mergers and strategic alliances work the best when the firms are geographically close to each other making collaboration much easier. When it comes to export, economies of scale, namely the spread of R&D and production costs over a large volume of sales, becomes of vital importance. Export partnering is often used in the early stages of growth, as it does not require a massive investment to establish an export operation but instead the firm may choose to use export agents. However, there exist risks associated with satisfying a potential group of customers that is dependent on the marketing firm. Consequently, building or acquiring manufacturing facilities and production units gives the firm access to local knowledge and is often the only way of getting a stance in a satiated market (Knight, 2015). Compared to export, the goal of licensing and franchising is to exploit firm-specific competencies to fight competitions. Out of these different market entry modes, foreign subcontracting seems to pose the highest barriers to entry, yet also offers one of the highest opportunities.

3 Factors to address in managing growth

In this section, we aim to identify the factors that may have an impact on managing growth. By growth, we refer to both internationalisation and business scope expansion. Growth is defined to be the management of existing knowledge and resources to create a larger financial value for the firm as a result of geographical and business scope expansion. Both geographical and business scope expansion create a need for an internal change in the firm's structure. This is because as firms grow, their existing business structure will fail to meet the new demand resulting in a deteriorated financial performance. Subsequently, firms are compelled to restructure their internal systems in line with their pace of growth.

3.1 Drivers and factors to address in internationalisation

There exist three main factors that drive growth. The first factor is the creation of low cost technologies, which enables firms to communicate and process information better (Acs et al., 2001; Arnold and Dagher, 2015). The second factor is the breakdown of trade barriers and heavy financial regulations. That is, countries that have signed the free-trade agreements would offer more development opportunities and market potential for foreign firms. As an example, following the breakdown of the trade barriers for the countries in the European Union, this has opened up new foreign direct investment opportunities for firms within Europe as well as firms from the third world developing countries. The third factor that drives growth is globalisation and the economic restructuring as well as the liberalisation of the Asian markets, which all calls for more foreign direct investments. In this case, understanding the legal requirements and respecting the local authorities is especially important in relationship-intense countries such as China (Panhans and Kaufmann, 2004).

The incentives behind growth can be divided to three main types of advantages, namely:

1 ownership advantages

2 internalisation advantages

3 location advantages (Dunning, 1988).

Firstly, ownership advantages are specific to the firm. That is, firms grow as a result of the accumulation of organisational resources, intangible assets, technological capacities and product innovations. Then, internalisation advantages arise as a result of firm's improved capacity to manage and coordinate business practices internally as a result of foreign direct investment (Laeven et al., 2015). Thirdly, location advantages originate from the institutional and local benefits present in a particular geographical area. Location advantages are especially important when a firm is considering to manufacture different product parts across borders.

3.2 Drivers and factors to address in business scope expansion

Compared to the factors discussed above related to internationalisation, the factors to be addressed in business scope expansion concentrate more on the management aspects of growths. The factors to be addressed in business scope expansion are more dependent on a firm's ability to create, utilise and develop its knowledge-based assets. In this case, knowledge management is defined from the previous literature as the activity of creating value from the intangible assets (Teece, 2000). The intangible assets include employees' commitment, customer relationship, innovative processes and organisational culture. Intangible assets play a vital role especially for high-tech firms who aim at sustainable growth, which is the case for most of the high-tech firms today (Xia, 2015). This is because while competitors are exposed to tangible assets, which may be easily imitated, intangible assets are much more difficult to copy. Consequently, fast growing firms are required to cover all aspects of their knowledge-based asset management that have an important effect on the firm as a whole (Salojärvi et al., 2005).

High-tech firms are characterised by a high development capacity where innovation plays a vital role (Xia, 2015). This is because these firms often have a small group of highly competent professionals whose core competence is consisted of having a firm knowledge in research and development. Another important intangible asset for high-tech firms is their customer orientation and service attitude (Xia, 2012a). As a matter of fact, innovation in itself is not sufficient, the main success factors behind business scope expansion in addition to intangible asset management also requires firms to gain a first mover advantage securing market domination (Aaker, 2007). In this case, a first mover advantage is achieved when a firm can enter early into the market and grow rapidly by making prudent investments. In this case, the firm would explore a new market niche, which refers to a potential market that has been created as a result of having a first mover advantage. In such a market, there are opportunities for firms to grow, as supply is below demand.

4 Research methods

In this study, we will dissect the development of high-tech firms into different stages and categorise the aspects of managing growth via an empirical framework based on the interview results from the top management of an oligopoly, namely the Oracle Corporation. This study aims to explore the role and importance of growth for oligopolies operating in the technology industry. Specifically, our study focus on the value maximisation strategies needed for high-tech firms to achieve market dominance. We will limit the scope of our research to focus on oligopolies and their strategies in managing growth. The empirical results presented in this study, while are based on the theoretical contribution of the previous literature, incorporate also the management insights from the Oracle Corporation. Specifically, Figure 1 summarises our empirical framework of this study. The three research questions that shaped the interview are formulated below.

1 What are the success factors behind the internationalisation of the Oracle Corporation?

2 What are the success factors behind business scope expansion of the Oracle Corporation?

3 What are the success factors in managing growth for high-tech firms?

The empirical results of this paper are limited to a case study and the history analysis of Oracle based on the interview conducted with the top management in the Oracle Corporation.

5 Summary of results

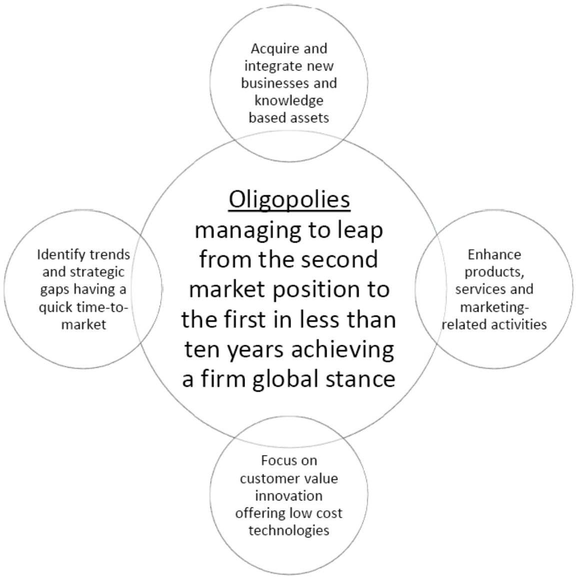
The aim of this section is to discuss some of the aspects in managing growth for high-tech firms. The empirical results derived in the present study are based on the management insights, the previous research results as well as the discussions presented in section two and three. First, we aim to give an overview of the type of high-tech firms under analysis including their product offerings, organisational structure, financial perspective, operation environment and the level of competition in the technology industry. Then, we will discuss some of the value creating factors for oligopolies based on their unique firm characteristics. In the present study, we will focus on established high-tech firms, such as the Oracle Corporation, which have a solid stance in the market and who managed to leap from the second market position to the first in less than ten years achieving a firm global stance. For the Oracle Corporation, the firm manages to do so by enhancing its existing portfolio of product and service offering via acquiring and integrating new businesses. The leap in the market position is measured by market share in terms of revenues. Typically, in these types of firms, sales and marketing expenses tend to represent one of the largest categories of the firm's operating expenses. Consistent investment in R&D also governs to a large extent the cost structure of these high-tech firms.

The technology sector is a multi-billion dollar industry where it is intensely competitive with a few large dominant players and numerous small fast growing firms (Xia, 2015). These large firms, such as Oracle and Microsoft, have considerably more financial and technical resources than the others, as measured by market shares. Nevertheless, technological innovations and the opportunities presented by the internet have removed many of the market barriers to entry, and there is an increasing number of small firms also competing in the technology industry (Xia, 2012b). As a result of the intense competition, prices may fall from times to times resulting in the fall of revenue in the respective industry. However, the technology sector has a strong potential for growth, and thus nurtured a few stars while rejected a bunch of problem children (McGrath and Singh, 2016). The drivers behind growth in the technology industry can be partially explained by the rapid development of IT and the growing demand for computer-based solutions. A significant portion of these high-tech firms possess international sales channels, and thus is subject to the risks present in the general economic environment, the different tax structures and the regulatory requirements in each country. In addition, when business is conducted in currencies other than the currency in the parent country especially in terms of foreign subsidies, changes in the value of foreign currencies may adversely affect the parent firm's profit margins (Demir et al., 2016).

The technology industry is evolving rapidly where new technologies are being constantly developed and marketed. Even if a firm offers new innovations and does not yet have direct competitors, there are always indirect competitors. A competitive strategy can be defined based on the previous literature in relation to a firm's customers and competitors. A firm is said to have a sustainable competitive advantage when it is executing a value creating strategy that is not simultaneously being executed by any current competitors within the same industry and when the benefits of this strategy are difficult to be actualised by the firm's competitors (Rothaermel, 2015). Firms that obtain a sustained competitive advantage manage to implement strategies that utilise their internal strengths. As the economic activities in the technology industry are quite random and at times unpredictable, firms are required to capture market opportunities and neutralise external threats. Therefore, firms that can identify the trends and are moving fast in line with the market development are likely to succeed.

In the technology industry just as in all the other industries, providing increasing value and satisfaction for the customers is critical to remain competitive, as shown in Figure 1 being the empirical framework of this study, but often this is not sufficient to take the market share away from established competitors. In addition, as economies of scale for technologies strongly favour dominant players, firms should avoid creating direct substitutes for other vendors' products (Myers and CEcD, 2015). Therefore, differentiation in the product features and usability is crucial. Conversely, there are considerable advantages to being the first to the market with a new product, as shown by the example of the Oracle Corporation. Technology design should, thus, focus strongly on useful and customer-valued innovation. This is because improved customer management results in lower sales and service costs and higher customer retention rates, and thus lower customer replacement expenditures. As a matter of fact, the goal of customer relationship management is to develop and maintain mutually beneficial relationships on a long term basis.

Figure 1 Attributes of oligopolistic markets



The customer base of the technology industry can be divided into two main categories, namely the regular consumers and the corporate customers. In addition, high-tech firms operating in such an environment can be divided into four different strategic groups.

1 With the difficulties of research, development and innovation in the industry, old firms that seize to grow will eventually fall into one strategic group, as their products grow obsolete. These firms are likely to file for bankruptcy unless they start to innovate again or are being acquired.

2 For the second strategic group, the nature of the product offering is a necessity, and thus the market barrier of entry is high since well-established firms have already achieved a lock-in position in these types of industries.

3 On the other hand, if the strategic group is highly competitive, firms in it would opt for a respectively more aggressive marketing strategy with which they aim to boost their sales volume. In this case, having customer loyalty is a strategic necessity for sustainable business. The Oracle Corporation belongs to the fourth strategic group.

4 In the fourth strategic group, industries and enterprises demand fast technology solutions for their operations, firms that establish a firm foothold in this strategic group would choose to focus on growth and customer subscription maximisation.

As corporate customers are loyal and pay large sums for products, firms in this strategic group do not experience as much uncertainty in the market as the previous groups do. However, simultaneously, there exist some small firms operating at a lower level of profits and produce competing technologies, and thus their significance is increasing and they are a threat to the current structure of this strategic group and its level of profitability.

6 Conclusions and discussion

The goal of this study is to identify some of the aspects in managing growth for high-tech firms that enable them to become a dominant global player within a comparatively short period of time as measured by market shares as a result of successful business acquisition and expansion programs. Our results show that having a customer-oriented attitude in managing growth is not enough in achieving market domination, as imitation and innovation from competitors occur at the same time at a rapid pace. In addition, the small start-up firms also pose threats to the existing firm's dominance in the technology industry, and thus diverse product offerings, intellectual property rights and flexibility towards change are also important factors to be addressed in managing growth for oligopolies, such as the Oracle Corporation.

Within the dynamic and multifaceted technology industry, competitiveness is more often pursued via cooperation with different players in the same industry sometimes even with competitors (Fleming, 2007). This is because strategic alliance is seen as one of the easiest way to enter international markets. While collaborative partnerships and alliances including mergers, export, foreign subcontracting, licensing and franchising, are formed for different business incentives, in general, they are used to strengthen knowledge and/or a capacity gap in the firm's own resource or competence pool. Collaborative partnerships and strategic alliances may also be formed to reduce investment needs, to save costs or to speed up the development pace. Specifically, strategic alliances between different business units with shared information and resources will result in lower costs due to more balanced operations, economies of scale, and the elimination of inefficient activities as processes and procedures are standardised (Constanza, 2007). When leaping from a second position to become a dominant player in the technology industry, this is also dependent on the firm's ability to develop new products and services, the possibility to integrate the acquired products and services as well as the firm's capacity to enhance its existing products and services. As a matter of fact, one of the success factors in managing growth is to identify the market trend in the industry and to develop products in line with the customer demand.

While the present study has looked at some of the aspects in managing growth in terms of internationalisation and business scope expansion, it is ultimately the firm, which executes the strategies for growth. Therefore, it is important to see the firm as a whole where its structure should support the top management in business execution, as none of the units can separately exist on its own. We have limited our analysis to managing growth for high-tech firms. We have considered the competitive environment when identifying patterns of growth moving from a firm-centric to an industry-wide perspective. The empirical results of this study are case limited and the historical analysis of the technology sector is largely based on interview results of the top management from the Oracle Corporation. Research based on case studies to unravel patterns and linkages of theoretical importance offers advantage over other types of research when the study focus is on a contemporary set of events over which the researcher has little or no control; that is, the research question in this paper is formulated with limitations over the controlling events (Yin, 2003). While results of our study are based on a listed firm in the USA, the strategies to improve sales via growth in a short period of time are relevant for established market players in other industries unlimited in geography. Future research opportunities call for an additional definition of performance and multimarket competitors in managing growth.

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