
SMEs business growth model: a medium to big effort

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Abstract: During the past decade, a major concern has been the failure of small and medium-sized manufacturing firms (SMEs) in transforming themselves into large firms (MNCs) both regionally and globally. Given the relative rarity of the typical small business making substantial growth, academics, management experts and governments in many countries have been keen to discover ways in which small business growth can be encouraged. What kind of strategies do successful SMEs use to grow, and, conversely, what constraints prevent growth? Unfortunately, little is available in the existing literature on SMEs business growth model. So far, current approaches to business strategy has been developed and tailored for MNCs. Using cases in three companies, this paper explores the business models that have been successfully used by medium-sized SMEs in transforming into emerging MNCs. A framework for business growth strategies is proposed and its implications for SMEs are discussed.

Keywords: business model; growth; SME; MNC.

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1 Introduction

How could small and medium-sized manufacturing firms (SMEs) transform themselves into Multinational Corporation (MNCs)? There is hardly any easy answer to this. In Far

East, encouraging the growth of SME is widely seen as being an important segment of industrial policy in many developing countries. The emphasis on SMEs is also associated with the implications from the relocation of foreign manufacturing MNCs to China. Local governments are encouraging their entrepreneurs to build companies to 'fill in the vacuum' left by MNCs, such as business opportunities and unemployment.

For SMEs, the process of transforming into MNCs is complex, difficult, and hostile. During the growth process, most SMEs, especially the medium-sized companies often ended up being acquired by or merged into their competing large MNCs. This is often the case for SME that need to access public fund for resources. By listing the company in the stock exchange, they often fall as the victim of MNCs. This is because medium-sized firms often are being perceived as having direct treat to MNCs and affecting a particular MNC's business unit's growth.

To counter the risks of being taken over by MNCs, SMEs need to have a strong will to grow big. In a study of 12 emerging MNCs, Bartlett and Ghoshal [1] found that those failed were basically due to a paralysis of will. In addition to good leaderships and a passion for learning, they further add that companies from the developing countries need to have a clear strategy to become global players.

Thus, what are the growth strategies that are applicable to SMEs? What are the successful business strategies used by SMEs in transforming to emerging MNCs? However, little is available in existing literature on SMEs business strategies. So far, business strategy thinking has been developed mainly in relation to MNCs. In his seminal work, Ansoff [2] exemplifies an explicit, highly rational, long-term planning process aimed at the development and growth of the business. This model became highly influential both in business schools and among managers of large enterprises.

However, the applicability of these MNCs inclined business strategy and planning models to SMEs may be questioned on a number of grounds [3]. First, it is unlikely that SMEs managers will have the resources (time and skills) or inclination to use these business models. Much research shows that SMEs managers are so busy coping with the immediate management of the enterprise, that they say they have 'no time' to plan ahead. Second, SMEs managers have less need to take others into account. Typically, they own the enterprise outright or are the dominant shareholders and therefore it is not necessary to demonstrate to others a long-term strategy for the business.

Strategy is much less of a conscious process based on detailed prescriptive models or sophisticated techniques, and more of an instinctive, flexible approach to survival consistent with the owner's broad personal and business goals [3]. This point is supported by Mintzberg and Walters [4] who distinguish strategies into deliberate and realised. In the real world, argue Mintzberg and Walters, few strategies are entirely deliberate or purely emergent. Entirely deliberate strategies, rigidly adhered to, mean the business cannot respond to unforeseen threats and opportunities. Entirely emergent strategies imply the business is just drifting with the tide.

Thus, models of business strategy and planning which allow it to be much less explicitly rational and to respond flexibly to events as they occur, are seemingly much easier to apply to the SMEs owner. This paper would like to explore how could SMEs grow large, and why some failed to do so. Especially, this paper focuses on the business strategy models that successful SMEs have adopted in becoming emerging technology-driven MNCs. Technology-driven SMEs have played a major role in the rapid industrialisation of many Far East countries such as Taiwan, Korea, and Singapore. These firms play an increasingly vital role in the development and commercialisation of

new products, processes and technologies. A better understanding of the business strategies and growth models of such firms will enlarge knowledge in management theories and enable SMEs practitioners to influence business growth.

The paper is structured into three parts. Firstly, literature on business models and growth are reviewed. Then, the business models adopted by three emerging MNCs are described and discussed. Finally, a framework for business growth strategy is proposed and its implications for SMEs are discussed.

2 On business growth model

A brief look into the SME related literature will show that models of organisational life-cycle and stages of development have been frequently used as a contingency variable to study the changes and problems faced by SMEs [5,6]. These models view SMEs growth as a series of three to five phases or stages of development through which the business may pass in an enterprise life-cycle [7].

Using data from 133 manufacturing SMEs from 'high technology' industries in the USA, Hanks *et al.* [8] derive a life-cycle SME model with four development stages: (a) Start-up; (b) Expansion; (c) Maturity; and (d) Diversification. They describe growth stage as a unique configuration of variables related to organisation context or structure. Contextual dimensions considered include enterprise size and age, growth rate, and challenges faced. Structural dimensions include structural form, formalisation, centralisation, vertical differentiation, and number of organisational levels. This four-stage model has a similar point as proposed by Kazanjian and Drazin [9] on their study of growth in technology-based concerns (see Table 1).

Table 1 Four stages of firm's development

<i>Stage 1 – Conception and Development</i>
<ul style="list-style-type: none"> • focusing on product development and design • securing adequate financial resources and developing a market • formality and procedures are non-existent
<i>Stage 2 – Commercialisation</i>
<ul style="list-style-type: none"> • has a product that performs well and meets a need in the market place • has the capability to produce and sell • has some revenues and some backlog of orders
<i>Stage 3 – Growth</i>
<ul style="list-style-type: none"> • achieve high growth rates in both sales and marketing • focusing on how to produce, sell, and distribute products in volume while attaining profitability • has own products
<i>Stage 4 – Stability</i>
<ul style="list-style-type: none"> • development of 2nd, 3rd generation products and/or totally new product lines • securing growth funding, and market share • penetrating new geographic territories

Source: [7]

Although these life-cycle models have increased our understanding of the rather complex phenomenon of growth, describing how growth happens and the effect that it has on organisations, they have many limitations [10]. The dynamics of growth and business models have not been addressed. In her seminal work 'The Theory of the Growth of the Firm', Penrose [11] expresses the following views:

"The purpose a life-cycle theory of the firm would serve are obvious, yet the theory as a base undeveloped hypothesis has existed for a long time and nothing has been done to construct from it a consistent theoretical system with sufficient content to enable it to be used for any purpose whatsoever.... Indeed, just the opposite conclusion must be drawn: the development of firms does not proceed according to the same 'grim' laws as does that of living organisms".

O'Farrell and Hitchens [12] further highlight the weaknesses of SMEs business growth stage models as:

- stage models are inclined to address the symptoms of growth, rather than reveal the underlying processes of the phenomenon
- stage models tend to assume all SMEs pass through each growth stage or fail in attempting to do so
- stage models typically fail to capture important early stages in the initiation of small enterprises, including prior to start-up.

Thus, existing literature has little to offer to describe the business growth model that medium-sized SMEs have adopted in the transformation to becoming MNCs. Existing literature is based around well-established theories and concepts of the formation of new firms and the behaviour of small firms, structure and behaviour of MNCs [13]. While industrial economics and stochastic theories shed light on some phenomena of interest, they are far from full explanations of the SMEs business strategies. Gibb and Dyson [14] claim that much SMEs growth is topsy-turvy, and is reactive rather than pro-active. The growth process of a firm involves various patterns of decisions and strategies. To some extent, medium-sized SMEs have been grouped under the rubric of SMEs. In practice, the literature implicitly assumes that the behaviour and structure of medium-sized SMEs are more or less the same as small firms.

In the following section, three cases of technology-driven emergent MNCs companies are studied and their business growth models are discussed.

3 Research design and methodology

To study the growth and development patterns of technology-driven SMEs, this research adopted an inductive approach [15]. Three cases of emergent MNCs companies in Far East are selected. These cases have been selected for a number of reasons. First, they provide a regional coverage. Second, they include some of the dynamic experiences of growth and competitiveness in local and global markets by Far East MNCs in recent years. Third, these cases indicate both diverse growth paths, as well as common lessons regarding the technology-driven firms.

In reviewing these experiences of emergent MNCs business growth models, each of which can be read as a stand alone section, the objective is to understand their main characteristics; strategies of cooperation that raise efficiency and upgrade skills and

technologies; and, the business models in facilitating the organisational and technical learning strategy and furthering the growth of customer base. While the initial idea was to pursue the same questions for each case study, in practice, this has proven difficult because the coverage in the available material is uneven. Nevertheless, the final section of the paper draws together some of the common findings from these diverse studies, and suggests lessons for business growth models.

Synopses of the three firms: (a) Samsung; (b) Acer; and (c) Chinese Microwave Stove Manufacturer are provided in Tables 2, 3, and 4.

Table 2 The key milestone of Samsung company development

Case 1: Samsung – a Korean electronic manufacturer. Samsung was a contract manufacturer for General Electric to manufacture microwave oven in the early 80's and had successfully transformed from an Electronic Manufacturing Service (EMS) company to a global player in manufacturing in less than 25 years. Samsung is now on par with its high-tech counterparts in the USA and Japan: Samsung profit was double that of Intel and more than six times that of Sony for the fiscal year of 2001 (Merrill Lynch, 2002). Followings are key milestones of its development.		
1938	First business bearing Samsung's name	} Expansion into a variety of industries ranging from sugar and flour refining to insurance, medial care, and news media
1969	Established Samsung-Sanyo Electronics	
1970	Established Samsung Electronics Manufacturing	
1974	Samsung Heavy Industries Company	
1977	Samsung Shipbuilding Company Samsung Precision Company	
1983	Until Nov 1983 Samsung only produced semiconductors for the domestic market. With the successful development of its 64K DRAM VLSI chip in December 1983, it assumed a leading position in the world.	
1986	Established Samsung Economic Research Institute to further expand into such fields as genetic engineering, optical telecommunications etc.	
1987	Established Samsung Advanced Institute of Technology	
1993	Launched 'New Management' program – named it as 'World's Best Strategy'	
2001	Secured 1450 US patents, and is ranked within top 5 in the world's technical market for the 4 th consecutive year.	

Source: Compiled from various sources including Kim [16], and Samsung's corporate website (2003)

4 Discussion

A business strategy for SMEs to transforming themselves into MNCs is necessary because they have limited time, finance, and resources. The strategy should be flexible enough to allow them to explore different possibilities, and at the same time prevent them from running into too many dead ends. It should allow them to assess progress toward their goals, and to make necessary adjustments along the way. The three cases show a variety of business models that these firms have adopted successfully in transforming themselves into emerging MNCs. All three companies originally focused on specific market niches and have been able to use established technological and local resources to diversify into new but related products.

Table 3 The key milestone of Acer company development

Case 2: Acer – a Taiwanese company that started in 1976 as an electronic components importer and became world’s number three manufacturer of personal computers in just two decades. Acer learned from its exposure to global technology and best manufacturing practices, which helped the company move upstream into manufacturing motherboards, peripherals, and central processing units. In 1989, Acer partnered with Texas Instruments (TI) to produce semiconductors. Nine years later, it bought out TI’s share. As the PC market matured, Acer used its growing global presence to build capabilities at both ends of the supply chain, where the margins were higher than in the assembly business (its early focus). Recognising that Acer’s focus on assembling PCs was keeping the company in the least profitable segment of the market, Acer decided to move up the value curve by developing capabilities in components and distribution. Downstream, Acer’s regional business units took over local assembly, started sourcing locally, opened new channels, and invested in the global brand that the company felt was key to freeing it from the low-margin OEM business. The company is now developing software and internet businesses, which it believes will be the high-end value-added segments that will drive the next stage of Acer’s global expansion. Table 3 summarises the key milestones of its development.

1976	Electronic components importer
1979	Designed Taiwan’s first mass-produced computer for export
1987	Created ACER brand name
1989	Partnered with Texas Instruments (TI) to produce semiconductors
1998	Bought out TI’s share
2000	As part of Acer’s latest reengineering, Acer splits off its OEM business unit to create Wistron Corp., an independent design and IT manufacturing company.
2002	Revenues reached US\$12.9 billion. 39,000 people supporting dealers and distributors in over 100 countries.

Source: Compiled from various sources including [1], and Acer’s corporate website (2003)

Basically, these business models could be summarised into a framework (see Figure 1), consisting of following three approaches:

- breadth-on-Top-of-Depth
- transformation
- diversify.

The framework could also be seen as a continuous inter-linked business growth strategies. A brief description of the framework is outlined below.

4.1 *Breadth-on-top-of-depth (BTD)*

In the BTD strategy, firms seek to place their developing expertise in a broad context. One way to look at the concept is to imagine a capital ‘T’. Here, depth is represented by the stem of the ‘T’, and breadth by the horizontal arrows. BTD means breadth in addition to depth. Developing depth, be it in a technical/research area, is essential to business success. The last thing that SMEs want is to be ‘a mile wide and an inch depth’!

Table 4 The key milestone of the case 3 company development

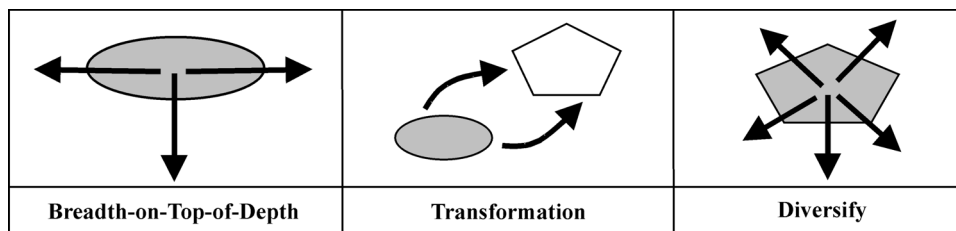
Case 3: Chinese Microwave Stove Manufacturer – Its brand name may not be recognisable in the international market, but its actual market share had reached more than 35% in the world market and exceeded 75% in Chinese domestic market in 2001. The company started its microwave business only in 1991 and took only four years to become the No. 1 in China and another three years to become the No.1 in the world. Table 4 summarises the key milestones of its development.

1978	Ten people started a company in Shunde, PRD region, producing down clothes
1979	Sales reached 468,000 RMB
1991	Sales reached 100 million RMB
1991	Decided to sell all down businesses and to make microwave oven for higher value
1992	Introduced Matsushita production technology
1993	Produced 10,000 microwave ovens as an experiment for Chinese domestic market
1995	Became No.1 brand in China with 250,000 sales units when Whirlpool acquired Xianhua
1996	Chinese domestic market share reached 50%
1997	Overtook Samsung; set up R&D centre in US
1998	Largest microwave producer in the world with 4.5 million units; held 74% CHN market
1999	Attracting MNCs’ orders at half the cost offer
2001	Cloning its successful microwave oven experiences into other strategic business.

The company established its vertically-integrated manufacturing system for the Chinese domestic market, but its strategies for penetrating the international market and for positioning itself in the global supply network are unique. Leveraging on its cheaper labour advantages and the demands for outsourcing from western countries, the company decided to attract more international orders, and at the same time to build up its production capacity with more advanced western technology. In the late 1990s, the company adopted a policy to offer high standard finished microwave goods to international microwave companies at only half of their current ex-works cost. The condition of the deal was for western companies to ‘give up’ their production facilities. The CEO of the company summarised the essence of the strategy that ‘many European companies used their facility for only six hours per day and four days per week, which was not at all efficient. When the facilities were relocated to our factory, we could complete their weekly demand within a day and then use their facilities for our own products’. From the domestic market perspective, the case company is a normal classical firm; but it exploits its existing resources which offer them access to the global market.

Source: Compiled from various sources including Shi *et al.* [17]

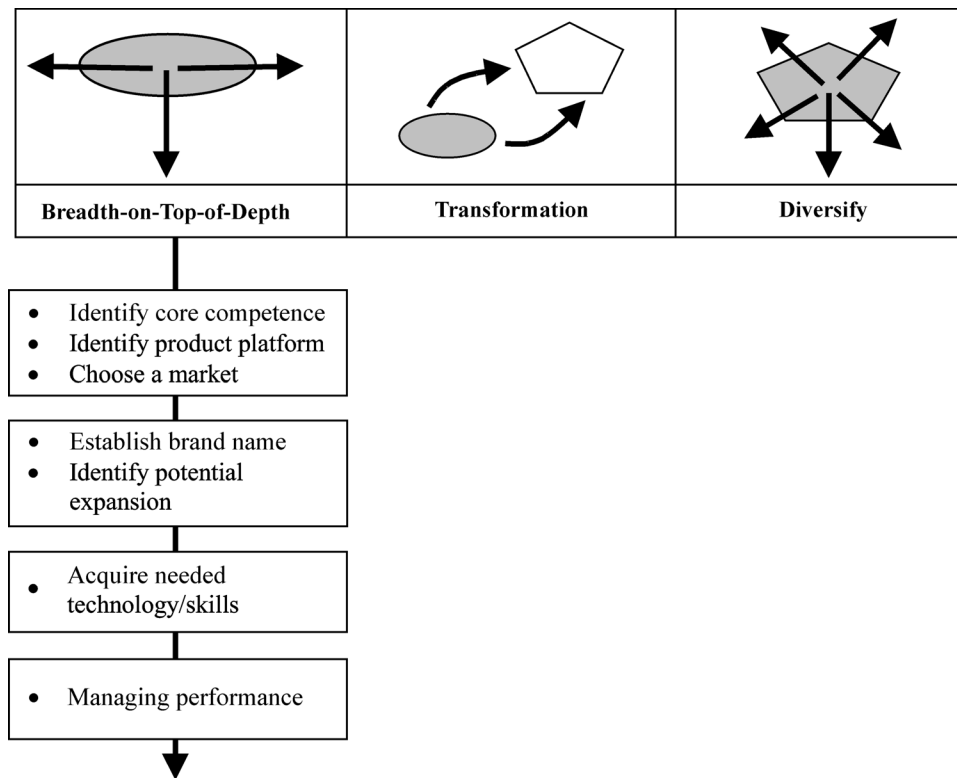
Figure 1 A framework for business growth model



There are many reasons why SMEs should develop breadth in addition to depth. First, by increasing their knowledge and exposure to related areas, they create the possibility of developing additional areas of expertise. For example, having established its reputation in electronic industry, Samsung expanded its operations into a variety of industries ranging from sugar and flour refining to insurance, medical care, and news media (see Table 2). Drawing on its competence, Samsung could capitalise on the knowledge and experience gained in these industries to focus its future operations. As early as 1983, Samsung has established an Economic Research Institute to expand into genetic engineering and telecommunication, which are the ‘crowns’ of industry today. Acer also pursued the similar strategy in the 90s by developing additional expertise on software development and supply chain management, on top of the assembly business.

Basically, by knowing what is going on in related areas, both Samsung and Acer increase the opportunities for business that enhance their capability. In addition, by widening the company product range, they make the firm more compelling to a larger market/customers, which in turn attract further business opportunities [1]. Figure 2 summarises some of the activities in BTD strategies.

Figure 2 Activities in the BTD strategy



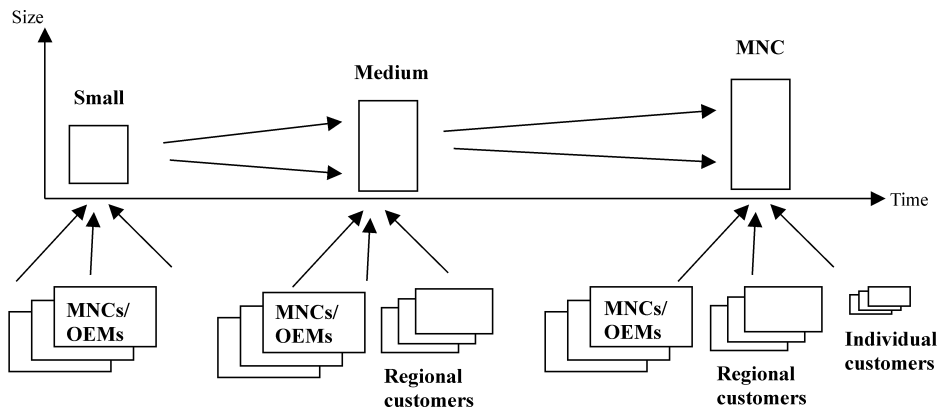
4.2 Transformation

In transformation strategy, firms think ahead, and to some degree act ahead of the stage they are currently occupying. They not only demonstrate their willingness to assume the

size/market they are seeking, but also their readiness to do so. Just as other SMEs began thinking about expansion, they need to begin doing some of the things MNCs do while they are still a SME firm. For example, Samsung established a number of research and development centres in the 1990s to solidify the company's technological foundation.

Acer has successfully transformed itself from a contract manufacturer to become an OEM in 11 year (see Table 3). ACER adopted a business model of having a few large MNCs as customer at the early stage of its development. It then grew very fast in size and acquired technology from its MNC partner (or customers). The model prepared Acer to face the challenge of meeting global quality standard, and consumer expectations, before offering its own products and engaging into the international market. Gradually, it began building up brand name and shifting its customer base from a few large MNCs to large and diverse individual customers (see Figure 3).

Figure 3 A shift in customer base



The Chinese microwave stove manufacturer took a rather different approach to transformation. Leveraging on the China's cheap labour market, the company established a fully vertically-integrated manufacturing systems to drive down manufacturing cost. The company played a fixed cost game [18] by offering contract manufacturing services to OEMs. In doing so, the company had the opportunity to expand and build up its production capability by adopting latest management practices and technology. This approach paid off as the company drove down other international players and became the world leader within seven years of its operation. Figure 4 summarises some activities in transformation strategies.

4.3 Diversify

In the diversify strategy, firms expand their product range and production capabilities based on their core competence. Samsung and Acer expanded their operations by capitalising on their earlier BTM knowledge and experience to move higher up along the product value chains. Acer's CEO Stan Shih calls this reorientation his 'smiling curve' [1]. Succeeding in components required strong technology and enough manufacturing skill to produce economies of scale. Succeeding in distribution required a solid brand, established channels, and effective logistics. Acer has built both, and is able to diversify

its operations by venturing into higher value-added business such as software and e-commerce (see Figure 5). Figure 6 summarises some of its activities in diversify strategy.

Figure 4 Activities in the transformation strategy

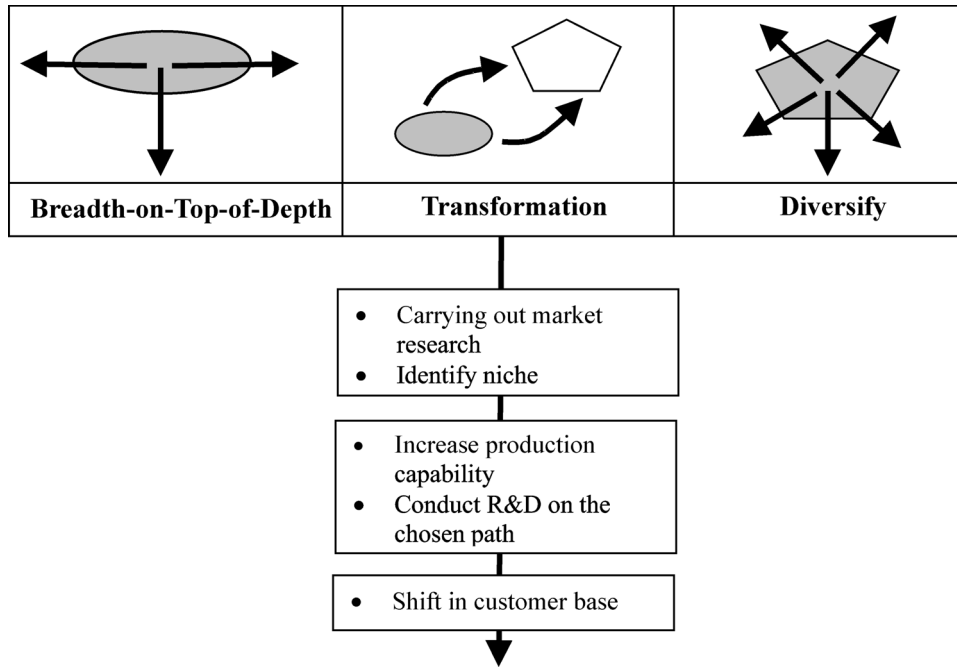
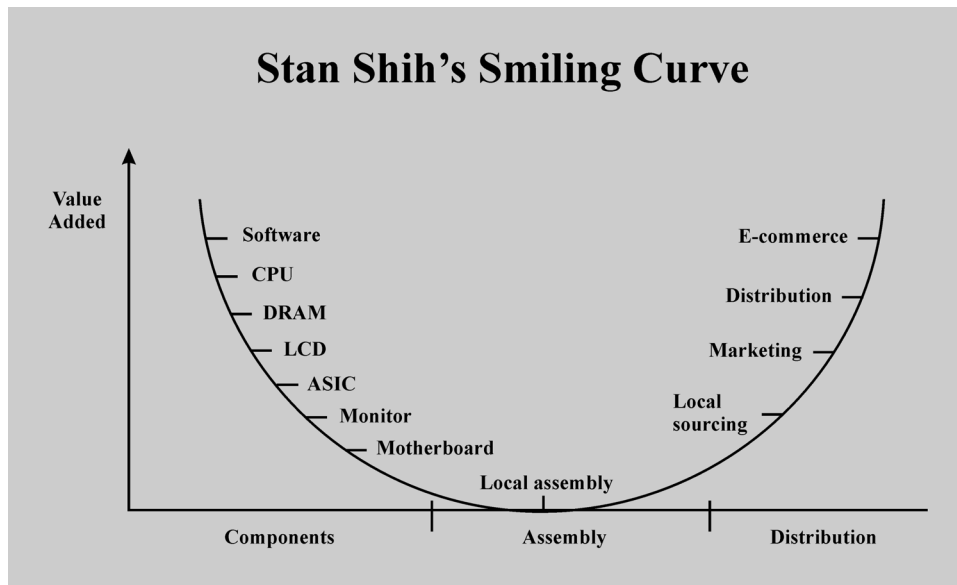
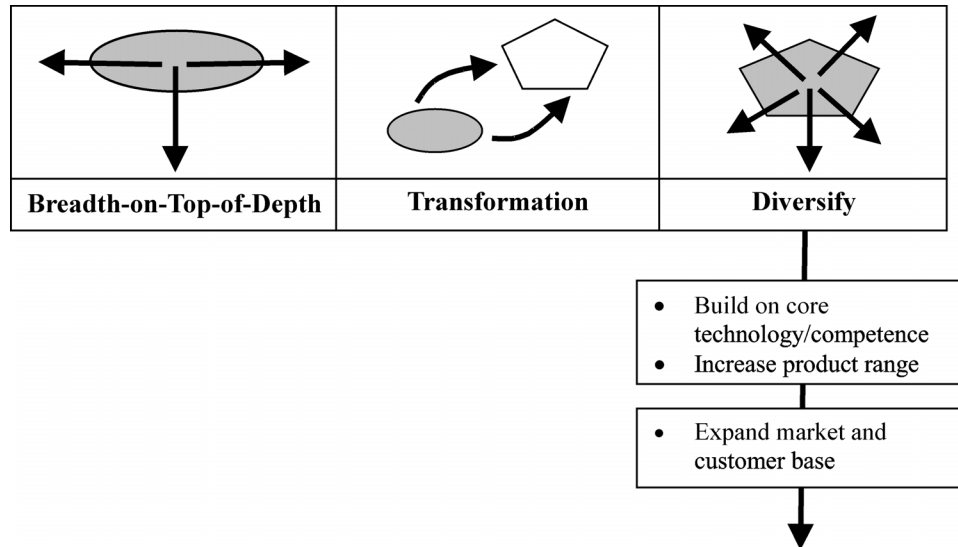


Figure 5 Smiling curve



Source: [1]

Figure 6 Activities in the diversify strategy

5 Implications for managers

The existing SME models lack theoretical explicitness and rigor and offer little explanation on business growth models that enable medium to become big. The business models available to medium-sized SMEs to shift from one stage to another are at best implied. This study aims to address this gap. A framework of business growth models has been proposed. The framework shows a continuous inter-linked business growth strategies that successful SMEs had adopted in transforming themselves into emerging MNCs. From the cases, the business models have shown to allow SMEs to:

- indirect access to the global market of the MNCs customer
- build up production capability for handling high volume production
- access best practice in all aspect of business (technology, management, product development, manufacturing processes, etc.) and global manufacturing supply network through inter-firm collaboration activities with MNCs, such as co-development of new technology, etc.

Thus, managers could use the framework to identify growth strategies that best suit their operations.

Nonetheless, there are no silver bullets for medium-sized SMEs to becoming MNCs. Apart from having a good business model, a firm's organisational structure and human resource development also play a vital role. Thus, managers should see the growth process as a series of inter-linked events, building on their competence. The growth of a company may be stalled if a wrong strategy was adopted, or poorly implemented a good strategy. Case A, a medium-sized SMEs has shown how the effort from medium to big is never easy (see synopsis of the company in Table 5). Eagerly to expand and becoming a MNC, the company took a high-risk decision in betting on a new technology that is not

within its production capability nor technology competence. Case A may have experience in the phenomenon described in the proposed framework, but failed in becoming a MNC. At this stage of the study, Case A is still committed to the MP3 technology development. The company is carrying out a business exercise to identify its core competence and making plans to solidify its technology capability.

Table 5 Synopsis of case A

Case A Malaysian EMS provider (Failure example)
<p>Case A is a small electronic manufacturing contractor offering manufacturing assembly services to MNCs in Singapore. The company's major customers were Japanese electronic MNCs. In mid-80 the company relocated to Malaysia to access the cheap labour market. This move gave the company an advantage in lowering down production cost, and subsequently the company achieved rapid growth in size and listed on the Stock Exchange in 1995. Eagerly to ride on its growth, the company decided to increase its 'breadth' by investing heavily in research and development (R&D) on the early model of CD-ROM. However, the newly formed R&D team could not catch up with the rapid changes in technology in the optical storage industry, and was soon unable to compete with the larger Japanese and Korean competitors. The companies suffered heavy losses on R&D investments.</p> <p>In mid-90s, believing that MP3 will soon replace CD as mainstream music players, the company committed heavy investment in MP3's R&D. The company wanted to transform itself from a CMS to an OEM. However, the growth for MP3 had been rather slow. In 1998, with the relocation of Japanese MNCs manufacturing facilities from South East Asia to China, the company experienced a major loss of OEM's customer orders. The company also lost its competitiveness for winning customer orders due to a lack of investment in advance manufacturing equipment. This crisis had further forced the company to restructure and reduce its employees by 2/3, and sales turnover down by 1/2. In hindsight, the Managing Director of the company commented that <i>'We had under-estimated the speed of technology change for the optical storage industry, especially the CD-ROM, and over-estimated the potential of MP3 (disruptive technology) in replacing CD'</i></p>

6 Conclusion and further work

The findings of this study contribute to the literature on SME studies and shed light for further research on issues relating to the growth and development of SMEs in Far East. The emerging MNCs we observed typically exploited late-mover advantages in one of two ways. Some started by benchmarking the established global players and then manoeuvred around them, often by exploiting niches that MNCs had overlooked. Other companies adopted an alternative, though riskier strategy. They offered contract manufacturing services to OEMs, which help them to build production capability. In doing so, the company has the opportunity to expand and increase in sizes. They used their production capability to challenge the rules of the game, capitalising on the inflexibility of operations and inefficiency of existing MNCs.

At present we have identified two potential uses for the framework: to help practising managers identify suitable growth strategies; and to help researchers to better understand the various growth models of medium-sized SMEs. We do not claim that the growth models that we identified are comprehensive, but they are applicable to managerial aspects of strategy formulation. It is important to understand the limitations of this research for worthwhile application of our conclusions on the framework. A bias may

exist because the firms were mainly located in Far East. In order for the framework to have value in these areas it needs to be applied on more cases. We intend to apply this framework in future and would be pleased to have input from other researchers interested in this activity.

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