Technology Incubation as Intervention for Sustaining New Technology-Based Firms' Growth in the Greater Mekong Subregion (GMS)

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***Abstract*— *Among the small and medium-sized enterprises (SMEs), the new technology-based firms are often considered as having higher potential to promote economic growth. Successful new technology-based firms (NTBFs) play a critical role in the development of local, regional, and national economies through the creation of jobs and the generation of profits. However, new start-ups face many uncertainties that may threaten their economic potential. This paper explores the growth obstacles of technology-based firms and proposes a means for sustaining the growth. Quantitative survey data was collected from 521 high-tech Thai start-ups and qualitative protocol was generated from the interviews with the CEO/owners of seven high-tech firms. New Technology-Based Firms (NTBFs) form the foundation for new wealth-creating industries. The successful commercialization of the NTBFs could help to convert innovative ideas into economic opportunities, generate competitiveness, create employment, and increase productivity. In addition, such firms transform new scientific findings into commercial innovation, thereby strengthening the transfer of technological knowledge into the markets, securing innovation-based economic growth and generating high qualification jobs. The establishment and growth of new firms are recognized as imperative because they not only are a manifestation of entrepreneurship but also are a source of economic growth. The race to develop appropriate policy and program mechanisms to help create and develop new technology start-ups continues to pose challenges for policy makers in the formulation of planned interventions. Technology-based start-ups need to launch quickly, catch up with competitors, and leverage on existing networks to sustain survival and growth. Business Incubators and accelerators are mechanisms capable of providing critical value-added inputs essential for supporting innovation and entrepreneurial growth of innovative NTBFs. The practical orientation of the proposed approach assists policy makers to design and implement programs that will more effectively help enhance the sustainability of NTBFs.*

***Keywords*— Business incubators, accelerators, small and medium enterprises, new technology-based firm, sustainability.**

1. INTRODUCTION

Small and medium sized enterprises (SME's) have always remained the engine for economic growth and development [1]. More than 50% Employment in 48 out of 76 countries is due to SME's [2]. Small and medium enterprises are backbone of any economy. Their role and performance are not only limited to employment, the need of economic infrastructure, but also poverty reduction [3].

SMEs are important for financial competitiveness enhancement and job employment creation [4]. The Thai government development policy is underpinned by SMEs development to sustain and improve business performance [5], to strengthen the growth of economy [6] and to position the country as a world leader in the technology industry through developing infrastructure, creating high technology talent pool, and providing a conducive business climate for all firms, especially high technology firms.

Among the SMEs, the new technology-based firms are often considered as having higher potential to promote economic growth. Successful new technology-based firms (NTBFs) play a critical role in the development of local, regional, and national economies through the creation of jobs and the generation of profits. However, it has been found that less than five percent of new firms have contributed productively towards the achievement of the goal [7] and many fails within two years of their foundation [8].

The growth of new firms is vital because it is critical to economic growth. NTBFs have the prospect to basically transform new technical findings into commercial innovation, strengthen the transfer of technological knowledge into the markets, secure innovation-based economic growth and generate high value jobs. Business incubators and accelerators are considered to be vital policy tools capable of providing value-added inputs crucial for supporting innovation and technology-oriented entrepreneurial growth of the NTBFs.

This paper explores the growth obstacles of technology-based firms. This study will identity the key firm-based factors that are associated with firms' development and propose a means for sustaining the growth process of new technology-based start-ups in Thailand.

2. LITERATURE REVIEW

New Technology based firms

Broadly defined, new technology-based firms (NTBFs) are new technology ventures, commonly small, which have been described as important sources of knowledge-intensive employment and promoters of technological change and innovation in different countries [9]. New

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technology-based firms (NTBFs) have stirred growing interest among governments, industry and researchers, due to their tremendous perceived potential to contribute to economic development and growth. NTBFs have been characterised as entrepreneurial start-ups and spin-offs from technical universities and corporations [10]. The successful commercialization of the NTBFs could help to convert innovative ideas into economic opportunities, generate competitiveness, create employment, and increase productivity [11]. In addition, such firms transform new scientific findings into commercial innovation, thereby strengthening the transfer of technological knowledge into the markets, securing innovation-based economic growth and generating high qualification jobs. These potential effects have led to a broad interest to motivate technology-based founding activities and to provide supporting services aiming at increasing their survival prospects [12].

NTBFs have characteristics that distinguish them from larger, established firms. Their newness and smallness, the uncertainty of their endeavour and the dynamics of their environment present challenges for their managers in the pursuit of business opportunities [13]. The fragility of NTBFs together with recognition of their high potential for innovation have stimulated economic research on the factors that affect their creation, survival and performance. Studies have identified the following factors: financial constraints generated by capital market imperfections; the degree of entrepreneurialism and the individual characteristics of those starting a business; firms' access to knowledge externalities; local economic and social characteristics; the availability and quality of support infrastructures; and the level of awareness among young people of the potential benefits of creating a venture [12], [14].

References [10] and [15] assert that in general, during the early phase, NTBFs are resource-scarce and their initial bundles of resources are not sufficient for the firms to create competitive advantages or even to progress from ideas to the commercialization of their technologies. In addition, these firms often lack financial resources and legitimacy. Consequently, in order to be able to develop and commercialize their technologies, including patent activities so that they can compete with other firms, NTBFs need to access resources external to the firms [16]. Such external resources are R&D equipment and production facilities (tangible resources), and technological know-how and expertise (intangible resources). They opine that new technology-based firms (NTBFs) need to collaborate with external stakeholders and build networks in order to acquire technical expertise and equipment to develop their technologies and innovation performance. Networks can be regarded as vehicles for firms' resource endowments, which are important for NTBFs to conduct business. Through business networks and close localisation with universities and industry intense regions, tangible resources, such as R&D equipment and facilities, which enhance new firms' ability to operate, become more easily accessed [17].

Besides internal resources, a firm's network resource endowments influence its competitive advantage as business networks can offer firms access to necessary assets and equipment for technology and the development of patents. In particular, in the early stage of firms, business networks and firm localization may provide NTBFs with resources which enhance the ability to develop and produce their technologies, and thus their innovation performance which could further enhance access to resources, such as external financing. The development of innovation capacity through internal research and development (R&D) or through collaborations with external partners could enhance young firms' success in launching new products in the market.

Internationalization is a competitive requirement for growth and gaining market share even in the home markets. NTBFs in emerging economies often have their technological and marketing strategies guided by technology imitation for which they need to build international networks to support their innovative capacity and internationalization. However, a significant number of them fail or do not even try to cross national boundaries. In the emerging economies, three barriers are perceived to be the major obstacles to TNBFs' internationalisation. They are (1) Institutional barriers such as high cost of capital to start international operations, lack of incentives and government support (credit lines, training programs, tax incentives), (2) organizational capabilities barriers such as difficulties in offering products/services that meet the needs of international customers, insufficient or inadequate technological skills to compete on cost and quality, and high production costs relative to competitors in international markets and (3) human resource barriers such as language barriers and human resources being unprepared for international operations [18].

NTBFs have the potential to fundamentally transform the ways in which societies and markets operate. They are crucial to the long-term development of an economy and in this sense deserve special attention. However, the growth of the NTBFs has been restricted by the shortage of (1) business knowledge, (2) fundraising and access to the financial resources, and (3) marketing skill. Thus, Business Incubators (BIs) have emerged as a policy tool to support NTBFs through the provision of ubiquitous services and resources [19-21]. These services are: access to the networks, monitoring, knowledge development and dissemination, finance and administrative mobilization, and creation of exposure [22-24].

Incubator and accelerator

New technology-based firms (NTBFs) exploit emerging technologies for their high growth potential and are differentiated for their contributions to economic growth. Consequently, national and local initiatives to promote the growth and support the survival of NTBFs have been widely implemented. Establishing incubators and accelerators is one such initiative [25].

Business incubators

Business incubators (BIs) are considered as a vehicle in both the advanced and emerging societies for the promotion of small-medium enterprises (SMEs) [26]. Incubators have become one of the most prominent instruments for facilitating the survival and growth of innovative startups [27-28].

The first business incubator was founded in 1959 in Batavia, New York [29]. From the 1970s onward, business incubators spread worldwide [30]. The latest recorded number of incubators around the world is more than 7000 [31]. Asia, the largest and mostly developing region with around 50 countries, has more than 2000 BIs. Most of these BIs are operating in the populous countries of Asia such as China and India [32].

Business incubation has undergone a major transformation and constantly added new valuable services. In the first generation, shared and affordable office space as well as resources and facilities contributed to an objective of economic revitalization. The second generation added a variety of advisory and support services (coaching and training) in addition to networking in order to accelerate learning efficiency [33-24]. The third generation of incubators emerged in the late 1990s and focused on providing the startups with access to networks, with the aim of facilitating access to external resources and providing legitimacy [34-37].

Accelerator

Accelerator is considered as a new generation incubation model [38-41]. The first accelerator, the Y-Combinator, was established around 2005 [42-44]. This industry has grown quickly and in 2015 there were 387 accelerator programs in place, responsible for nurturing more than 8,000 start-ups worldwide, with investments in the order of $200 million US [45].

Accelerators have been described as a form of early stage investment, speeding up processes of venture creation and product launch, and increasing start-up sustainability [46]. Accelerator programs combine previously distinct services or functions: seed investment, value added mentorship and advisement, co-working or colocation with other start-up companies, capital introductions and exposure, network building, the opportunity to pitch to multiple investors, and an increase in leverage in relation to potential Venture Capital (VC) investors that were each individually costly for an entrepreneur to find and obtain [38], [47-48]. More specifically, accelerator programs are programs of limited-duration—lasting about three months—that help cohorts of startups with the new venture process. In addition to the tangible resources such as office space and equipment, they usually provide a small amount of seed capital in return for equity. They also offer a plethora of networking opportunities, with both peer ventures and mentors, who might be successful entrepreneurs, program graduates, venture capitalists, angel investors, or even corporate executives [47], [49-50].

3. METHODOLOGY

The questions are developed based on the Anglo-German Foundation research questions [51] grounded on exiting literature in the field of entrepreneurship, innovation and growth dynamics in a total of 47 questions.The quantitative questionnaire is divided into 6 parts, Part I - General Characteristics of respondents, Part II - Product Characteristics, Part III - International Activities, Part IV - source of funding, Part V-Factor Constraining Growth and Part VI - Research and Development (R&D) activities and rating of their innovation situation, including their future plan with a total of 47 questions.

A total of 521 start-ups from the 2000 firms surveyed were selected. Altogether there were eight categories of firms by type of establishment. The distribution by type of establishment is presented in Table 1.

Table 1. Frequency distribution of types of start-ups based on establishment

Types of establishment	Number of observations
merger with a similar sized firm	138
merger with a larger firm	136
Independently established firm	93
acquisition of another firm in your industry sector	33
acquisition of another firm outside your core industry sector	25
management buy-out or management buy-in	22
change of ownership	24
change of management	26

Of the eight types of establishment, three types of establishments which are (1) firms established by merging with large firm, (2) firms established by merging with similar firm, and (3) firms established independently, 367 in total, accounted for about 70% of the total number of firms participated in the survey. The remaining six types of establishments, 154 in total, accounted for 27% of the firms used. As these six types of establishments were too small in number to be statistically practical for use individually in the analysis, they were combined to form the 'other' establishment type. Though the 'other' type is part of the analysis, it will be excluded in the discussion because it is not possible to attribute meaningfully the implications derived from the analysis to this group as it is consisted of six distinctly different types of firms.

The qualitative face-to-face interviews were conducted with seven hi-technology start-ups by using the same question structure used in the telephone survey. The

research themes further examined during the interview include; entrepreneurial characteristics, skill competencies, the technological strategy both research and development (R&D) and innovation strategy, product development, the extent of market development and international business activities, financial of business, and possible factors assisting or constraining the growth of firms.

The univariate, bivariate and multivariate analytical procedures are used to analyse the data collected in this research. The univariate descriptive procedure is used to describe the data collected to provide a profile of the characteristics of the respondents. The Poisson and Probit Regression Analysis are used to explore the relationship between each of the contigent varibles subsumed under the eight key firm-based factors and the types of establishment at founding.

Quantitative survey data (telephone interview) were collected from 521 high-tech Thai start-ups from the 2000 firms and qualitative protocol was generated from the face-to-face interviews by using the same question structure used in the telephone survey with the CEO/owners of seven high-tech firms were used in the investigation of the probable growth obstacles encounter by these technology-based firms.

In the questionnaire survey, the respondents were asked to determine what they feel about the various factors that might constrain the growth of their companies using a Likert Scale with a range from no constraints (1) to very important constraints (5).

The aspects:

- The factors that could constrains growth: availability of finance, skilled staff, experienced management, access to sales channels and red tape.
- The skills within the management team
- Performance attribution and general management
- The rate of technological innovation in the company
- The level of advanced technology and new capacity investment in the business

were examined to address the core characteristics of the growth assisting factors and barriers to growth of the innovative firms.

The factors examined during the interview include; finance, skilled employees, management experience, sales channels and distribution, commercial information, official regulations, organisation management, R&D, production and logistics, and shortage of skills within the management team.

The univariate, bivariate and multivariate analytical procedures were used to analyse the data collected. The Poisson and Probit Regression Analysis are used to examine the relationship between each of the contigent varibles subsumed under the eight key firm-based factors and the firms.

Hypotheisis

Hypothesis 1: There is a positive correlation between frims and finance.

Hypothesis 2: There is a positive correlation between firms and skills within the management team.

4. FINDINGS

The factors that probably will assist or constrain the growth rate of the Thai innovative start-up firms since establishment were examined in detail.

Descriptive analysis

The descriptive analysis of the 521 usable questionnaires collected from the 2,000 new hi-technology start-ups by using telephone survey provides the basic profile of the respondents. The finding of the general description of the core characteristics of the firms are: **Availability of finance**- most respondents believed financial availability was an important constraint to growth. Almost 40% of the firms indicated that the availability of finance was an important constraint factor, while almost 49% believed that it was a very important barrier to growth. **Availability of skilled employees** - more than half of innovative start-ups (52.03%) reported that the availability of skilled employees was a very important barrier to the growth of their businesses. 38.66 % of them indicated that the availability of skilled staff was an important constraint to the company's growth. **Availability of experienced management team** - 58% of the firms admitted that the lack of experienced management was a very important constraint to growth. Only a mere 1% reported that a lack of experienced management was not a constraint. The factor, **access to sales channel** - was considered 93.21% of the firms as an important constraint to growth. While almost 50% of the firms regarded it as a very important constraint. **Access to commercial or market information** - Access to commercial or market information was considered as an important constraint to growth by 41.75% and very important constraint by 47.09% of the firms. Finally, the factor, **red tape or official regulations**, was investigated. It is interesting to observe that the about 42% of the firms in the high-tech industry found red tape and regulations was a moderate constraint to growth. 32.07% and 20.45% of the firms found them to be important and very important constraints respectively.

The overall key indication of the results is that all the factors examined were considered as constraints to growth. The most serious constraint was experienced management followed by skilled staff and access to sales channels. The least serious constraint was red tape.

Although all the start-ups encountered barriers in growing their businesses, the serious constraints to business development faced by the Thai hi-tech start-ups were (1) access to sales channels, (2) availability of experienced management and (3) availability of finance respectively. Red tape or official regulations were the least serious as a barrier to growth. With regard to skills shortage within management team, the management team was lacking the most in marketing and sales skills.

The factors assisting growth or constraining growth development of firms

The crucial six factors that may constrain the growth of the business were **availability of finance, skilled employees, management experience, access to sales channels and distribution, commercial information and official regulations**.

- Finance/money is very important for the company if they want to invest in materials/equipment or to expand the business and human capital. Skilled employees are crucial. Without them it is very difficult to run the business efficiently resulting in waste of time and money. Sales channels and commercial information are important for the new start-up. The respondents need the public sector to support them by providing market information, including the way to expand to the international markets. Information about regulations in AEC countries is still lacking and they still fear the introduction of similar products by international competitors.
- Companies reliant on high technology and science need a more educated management team and equipped with accounting/finance/logistics skills.

To venture into international markets and develop new products/services to generate better financial returns, the companies need human capital investment, access to skilled staff, collaboration with other companies or organisations, innovation, and access to investment. Firms need to innovate to reduce costs, develop new products and processes, have value-add products, and create more efficient machinery. Another important factor is collaboration with other businesses or public organisations because these partners can help them to expand their market. The partners can provide critical information such as market information, production information, and competitor information. They can also enhance the start-ups' skills and knowledge.

Hypothesis 1: There is a positive correlation between frims and finance.

Financial aspects of business management

Capital is required to fund research and development, production, marketing, and growth as the firm moves from the seed stage through the start-up and later stages of firm development.

All participants affirmed that there were not many sources providing finance to new small firms in Thailand. The start-up entrepreneurs who planned to launch their own business needed to have personal equity to fund it first and then later try to secure external finance such as bank loan to further finance it [52-59].

***Source of finance*:** Capital is required to fund research and development, production, marketing, and growth as the firm moves from the seed stage through the start-up and later stages of firm development. The characteristics of small technology-based firms have an important impact on their ability to raise capital. Issues such as high risk, unproven markets, lead-time on product development, limited asset base, intellectual property rights, etc. often present important constraints on the ability of technology-based firms to raise capital.

Source of finance was found to be positively related to firms. The regression modelling on the use of ten different sources and types of finance highlights that six of them, personal equity, retained profit, short-term loan, other source of debt, venture capital, and other external finance were significant.

Thai high-tech start-ups faced difficulty in securing external financing and depended on personal funds and short-term bank loans as the main sources of finance to set up the business. Retained profits were used later to finance growth after the business had started to generate surplus revenue. The findings also indicate that financial bootstrapping is a common strategy use for financing the business [52, 56, 59-61]. In addition, start-ups created from a merger of similar sized firms and those created through an ownership change also tapped short and long-term loans, venture capital, and other external sources. There was no significant variation in the use of director loans by all types of firms.

The findings are consistent with the predictions of the financial growth life cycle model. It posits a pecking order suggesting that, in early stages of the firm's life, the entrepreneur relies on initial insider financial sources (i.e., personal savings, loans from friends and family, quasi-equity, personal debt, and business debt), trade credit, and angel finance, whereas, at a later stage, firm gains access to external debt and equity and therefore, personal funding becomes relatively less important [59].

Hypothesis 2: There is a positive correlation between firms and skills within the management team.

Skills shortage within management team

The management team with superior skills will bring extraordinary capabilities to the firm advantage (Song et al., 2008). The six different types of skill shortage within the management team which could impact on the growth of the firms will be considered in research such as Marketing, Sales and distribution, Financial management, Organization management, Production, and Research and development (R&D)

The firm that has both existing market knowledge and new technology market knowledge could grow better than a firm that relies only on new market knowledge [62], [63] highlighted in their books that the prior marketing/commercial knowledge and experience are important for entrepreneurial venture development. On the other hand, lack of commercial knowledge and its experience could be a cause factor of failure in business [64] as [65] pointed out that the senior manager often is being the person who contributes the critical awareness toward the true commercial value of technological invention. In addition, not only the marketing skill is a significant factor, but also the technical skill is important for the survival of new product firm [66].

The results of the regression analysis on shortage of marketing and sales distribution skills show that the firms were found to be significantly associated with both types of skill shortages. While the regression analyses (Financial and organizational management), as well as,

Production and R&D did not return any significant results that indicated that firm was significantly linked to both categories of skill shortages.

Thus, of the six types of shortage of skills, only the shortage of marketing skills and sales and the distribution skills were found to be significantly linked to firms.

5. DISCUSSION AND CONCLUSION

The results obtained from the survey and interview suggested development of growth of the firms was probably constrained by factors such as finance, skilled employees, management experience, sales channels and distribution, commercial information, official regulations, organisation management, R&D, production and logistics, and shortage of skills within the management team.

Financing is among the main challenges faced by technology based small firms [52-54], [49], especially in their early stages of growth [67]. The characteristics of small technology-based firms have an important impact on their ability to raise capital. Issues such as high risk, unproven markets, lead-time on product development, limited asset base, intellectual property rights, etc. often present important constraints on the ability of technology-based firms to raise capital.

The statistical results together with the interview data indicate that financial bootstrapping is a common strategy use for financing the business [55], [57-59]. The findings are consistent with the predictions of the financial growth life cycle model [68] which state that at the start-up stage entrepreneurs rely on initial insider's capital sources and that firms have different financial needs and options as they grow and become less opaque informationally. It posits a pecking order suggesting that, in early stages of the firm's life, the entrepreneur relies on initial insider financial sources (i.e., personal savings, loans from friends and family, quasi-equity, personal debt, and business debt), trade credit, and angel finance, whereas, at a later stage, firm gains access to external debt and equity and therefore, personal funding becomes relatively less important [59].

Successful new technology-based firms (NTBFs) play a critical role in the development of local, regional, and national economies through the creation of jobs and the generation of profits [69-70] and innovations [71]. Reference [72] contend that new start-ups face many factors that may threaten their economic potential, for example, the management capacity and the sales and marketing ability, as their founders often have mainly technological skills and competences.

The modern Incubators provide both tangible resources (such as cash, land, buildings, or equipment) and intangible resources (such as patents, trademarks, copyright, experience, or brand) directly to the startup or enable it to access resources externally through the incubator's networks [73]. In sum, reference [74] propound that the specific challenges that are faced by the technology-based start-ups during their development typically could be surmounted by incubators as they provide nurturing, instructive and supportive environments for entrepreneurs during the critical stages of a new business start-up.

First, it is important to have a broader formalised system that is capable of remedying the financial constraints faced by the entrepreneurs of small firms at the different stages of the lifecycle as a consequence of the impact of their cultural practices. As a complex social behaviour, entrepreneurship can be influenced by many different dimensions of culture. The impact of cultural practices of the Thai entrepreneurs could be seen in the manifestation of their behaviour to secure additional financial resources through merging with other firms, a common practice observed in this study.

The decision-making processes in Thailand are influenced greatly by uncertainty. The UAI (Uncertainty Avoidance Index) score for Thailand is 64, indicating that Thais have a high tendency to dislike uncertainty or unpredictable situations. The influence of Confucianism and Buddhism has also ingrained in the Thais a preference for conservatism and secrecy.

Conservatism encompasses core values such as maintaining the status quo, moderation actions, social order, harmonious relations, reciprocal favours, respect for tradition, and research of security. Conservatism is asserted to be associated with risk aversion and uncertainty. Individuals adopt a conservative attitude because they are not sure about the outcome of a novelty. Thus, they avoid new situations with unknown results.

A preference for confidentiality or secrecy is consistent with a high degree of uncertainty avoidance as the need to restrict the dissemination of information results from the wish to avoid conflict, competition and to ensure safety. Entrepreneurs who prefer secrecy fear that the disclosure of specific information can be used against their interests. Their concerns arise from the desire to protect property rights, discourage fierce competition and avoid professional jealousy.

Consequently, in terms of corporate finance, self-financing offers the advantage of avoiding the disclosure of information on the company's future plans to the investors or creditors, as is mandatory in the case of securing external financing. Thus, if the company does not have the required funds, it will prefer to revert to its own investment rather than to seek it from a bank.

Mechanism such as 'Business Matching' and business incubators (accelerators/bootcamps) are potential vehicles for overcoming the difficulty or malaise faced by new technology-based firms to secure financial assistance.

'Business matching' is a platform supporting finance liquidity for further business expansion and offering direct access to local or international market for SMEs and particularly for new start-ups. It assists the business not only to bridge the financial gap but also to embark on market development [75-77].

5.1 To bridge the financial gap

The initial high capital investment outlay needed at founding is quite difficult for the start-ups to generate. If the entrepreneurs merge the start-ups with other businesses, it could reduce the starting up investment cost a lot.

5.2 To reach the international market

Start-ups which plan to sell abroad can merge with businesses which are planning to lunch product/service in the new market. For the start-ups which have limited market in other countries could merge with those which are already selling internationally to expand their market segments overseas.

In addition, business matching can support new business creation through the building of relationship between Thai and foreign enterprises. This will enable the start-ups not only to enter international market but also to promote entrepreneurial development within the firms [76]. Supportive projects from both the public and private organisations offering business advisory support to all new enterprises and business who are looking for opportunity to expand their business are already avail.

Business Incubator (accelerator/bootcamp) is another vehicle that could be employed to achieve the objectives. For example, the annual Thailand innovation bootcamp organized by the Thai Business Incubators and Science Parks Association (Thai-BISPA)

Second, this study identifies the main growth obstacles important for helping the decision or policy makers in adopting adequate measures to support the creation and development of new businesses. Small and medium-sized enterprises (SMEs) need to focus on their sustainability and growth during the early start-up stage. Theories and models developed for large firms do not necessarily apply to SMEs. Small firms have been found, for instance, to differ in their competitive behaviour from large firms, a difference which has important implications for their performance and growth. This research may help to mitigate the risk of applying policies that may not be suitable for developing countries because they are based on evidence from developed countries.

This study has several significant policy implications, especially for the policy makers in the Greater Mekong Subregion in general, and in Thailand in particular. Without proper business strategy and support, new firms often fail to survive in a highly competitive market. Thus, especially for the SME start-ups, business matching is an essential key factor for business survival and success.

This study does have a number of limitations. First of all, a major limitation of the study is with regard to the extrapolation of the findings as the data used are limited to that collected from one developing country, Thailand. The study has focused on phenomenon in selected industries, so it may not be valid in other contexts. Factors such as environmental differences, extent of government interventions and industry characteristics could suggest a different set of growth strategies for another location. Findings from the case studies and questionnaire survey may not be applicable to other countries in different regions.

ACKNOWLEDGMENT

My deepest appreciation to: The academic staff and administrative team in the Surathani Rajabhat University who have fully supported the research. The Thai private and government departments namely, the department of Business Development (DBD), The Science Technology and Innovation Policy Office (STI), The Thailand Business Incubator and Science Park Association (ThaiBISPA), The Science Park Promotion Agency (SPA), Regional Science Parks Network, Credit rating agencies for their support and providing the relevant data. Assoc. Professor Syaharom Abdullah for his advice in academic language and research writing. Kultida Maopech, Suwimol Luewanitwong and their survey team members who assisted in the data collection. Mr. Naraphong Chomputhan for providing extensive assistance with the private and public sectors networking connection.

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