

GLOBAL ENTREPRENEURSHIP THAILAND 2002



COLLEGE OF MANAGEMENT
MAHIDOL UNIVERSITY



Acknowledgements

We would like to thank many people and organizations that support the accomplishment of this study. First of all, we would like to thank our entrepreneurial experts who agreed and gave their valuable time to be interviewed for this research, as well as the 1,043 Thai respondents who participated in the adult population survey.

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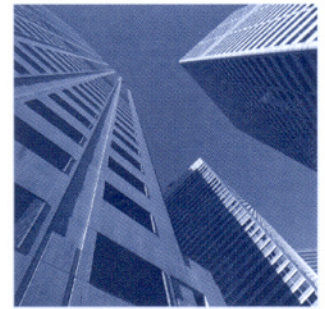
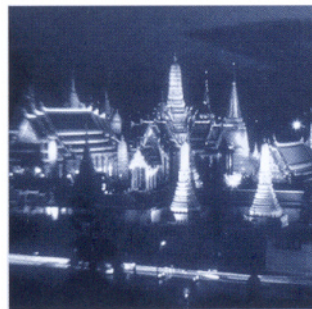
Brian Hunt

Director of Research

College of Management Mahidol University

Bangkok

Thailand



Foreword

It gives me great pleasure to write this foreword for the 2002 Global Entrepreneurship Monitor (GEM) report. The report has occupied our researchers for some time and much work has gone into the data gathering and data analysis.

At CMMU we recognize that research provides a foundation for discovering new knowledge. From this foundation we can learn more about our society and ourselves. Research is also a critical academic capability through which our educators and our centers of learning can build on their existing knowledge and disseminate new knowledge to the younger generation.

We are therefore honored to be part of the GEM study.

As the report points out, entrepreneurial activity is the lifeblood of a nation's economic health. This is a clear message from the GEM research worldwide and also from the specific part of the research study which focuses on Thailand. In an economy, the more entrepreneurial activity, the better.

The following pages report the major findings from the research. In particular, the report describes some key strengths and some fundamental weaknesses of entrepreneurship in Thailand. We should seek to preserve our strengths and develop these for the future growth of entrepreneurship. Weaknesses will be more difficult to deal with.

I hope you will enjoy reading the 2002 GEM report.

Professor Liangchai Limlongwongse, PhD.

Director

College of Management Mahidol University

Bangkok

Thailand

Executive summary

The Global Entrepreneurship Monitor (GEM) aims to assess and track changes in national entrepreneurial activity and environment over time, and investigate the relationship between entrepreneurship and economic growth. In 2002, 37 countries participated in the research consortium. This represented more than three-fifths of the world's population, 92 percent of its gross domestic product (GDP), and more than 460 million adults who are engaged in entrepreneurial activity.

The College of Management, Mahidol University (CMMU), in its first year of participation, conducted this research as the representative team for Thailand.

The GEM conceptual model is standardized for the purpose of making international comparisons. The analysis of results contains four major sources of data: national economic data, an adult population survey of 1,043 samples, expert interviews and questionnaires administered to 39 selected experts from various professional disciplines related to entrepreneurship.

We estimate that in Thailand in 2002 about 7.6 million individuals, or 18.9 percent of adults 18 to 64 years of age were involved in some form of entrepreneurial activity.

Either they were actively engaged in the start-up process of a new business or had been managing a business for less than 42 months. According to the GEM data, the level of entrepreneurial activity in Thailand was the highest among the countries participating in this study. Approximately eighty percent of entrepreneurial activity related to the pursuit of a perceived business opportunity. The remaining twenty percent of entrepreneurial activity was necessity-based. In Thailand entrepreneurial activity by women was the highest in Asian countries participating in GEM and also in all GEM participating countries.

The experts pointed out that the major strengths supporting entrepreneurship development in Thailand are socio-cultural norms, government policies, internal market openness, and access to commercial and professional infrastructure. The experts also indicated that a number of factors are hindering entrepreneurial development in Thailand. These include shortcomings in education and training, certain socio-cultural norms, and specific features pertaining to financial support. Also inhibiting entrepreneurship development are issues concerning Intellectual Property Rights (IPR) and research and development capacity.

Recommendations

In an economy the Entrepreneurial Framework Conditions provide the background against which entrepreneurship flourishes or dies. The GEM 2002 research data show that in Thailand there are deficiencies in education and training; socio-cultural norms; and financial support. In each of these three areas specific weaknesses hinder entrepreneurial development in Thailand. Improvements in each of these areas would help create a more supportive environment for entrepreneurs and encourage their endeavors.

Education and Training

In the GEM 2002 global ranking, Thailand ranks as the seventh lowest country in education and training effectiveness. According to expert opinions, Thailand's education system fails to equip people with entrepreneurial skills. Education affects not only human skills but also the mindset and worldview of people who follow education programs to pursue their goals and aims towards better futures. It is therefore important to instill in people from a young age habits of hard work, an entrepreneurial spirit and concepts and practices of systematic thinking. Only in this way can young people be helped to prepare themselves for a more productive future.

Building an entrepreneurial culture through education and training is arduous and challenging. It is no short-term task. It needs concerted and sustained efforts at all levels of education. Expert opinion suggests that a greater emphasis on teaching self-reliance and creative thinking would help create citizens who can contribute to the economic well being of the nation.

According to the expert opinions, the inadequacies of the Thai educational system are deep-rooted and embedded in time-honoured routines. Education at primary and secondary levels misses opportunities to open the minds of learners to basic concepts and skills needed for entrepreneurship (such as risk-taking and creative thinking). Schools curricula lack a focus on providing a knowledge background for entrepreneurship.

It is therefore recommended that the school curricula at both primary and secondary levels be reviewed from this perspective and that consideration be given to including subject content focusing on concerns of small business management, such as marketing and product development. A systematic programme of collaboration with the business community to establish a learning environment and workshops for students would bring an element of 'real life' to the

learning experience. This is often lacking when learners' gain their knowledge mainly from textbooks.

Initiatives to encourage learners to apply new knowledge to problem solving would help instill an awareness of life outside the four walls of the classroom. To this end, educators and academicians need to be aware of the strengths and weaknesses of learning knowledge 'parrot fashion' by rote. This is good for some learning tasks (such as learning mathematical tables, scientific formulae and the rules of language). It is inadequate for learning how to apply existing knowledge to novel situations and circumstances. The latter are better addressed through learner-centred classroom activities such as problem-based learning (PBL) which, when effectively done, give learners opportunities to apply knowledge to new situations. The focus of some part of classroom instruction needs to be on learner presenting their ideas for discussion.

These activities are likely to be criticized as 'counter cultural' and beyond the means of most classrooms in Thailand. However, with persistent application by both teachers and learners these activities will help provide learners with a repertoire of problem solving skills. Over time, learners will become more

confident to think for themselves. This can only be for the benefit of the future growth of the nation and the individual. A workforce whose personal competencies include creativity and innovation will become a valuable national asset. Such skills support values that encourage life-long learning for personal growth and development. Creativity and innovation will also facilitate the creation of differentiated products and services. These are worthwhile building blocks in creating national economic growth and prosperity.

A focus on entrepreneurship training at all levels, but particularly at secondary school level and upwards, would help provide the fundamental knowledge of business management. Post-secondary school training could address specific business topics such as situation analysis, management know-how, product development, finance & accounting. A case can be made for introducing evolving topics such as new business channels and electronic business principles and methods. It is important for budding entrepreneurs to know at least the fundamentals of business and the competitive marketplace. Once the fundamentals have been learned it is easier to build on this knowledge so that the new generation of entrepreneurs gains information that is accurate, up to date and easy to access.

Socio-Cultural Norms

While education plays a critical role in the development of the individual and thus society, it is important to promote a widespread culture in which entrepreneurial activity is an accepted fact of business life. This would ensure that Thailand builds a robust environment for entrepreneurship development.

While the Thai culture contains many attributes that are supportive of entrepreneurship (such as celebrating successful entrepreneurs, a desire to be one's own boss, and a willingness to take a chance), it also has an obverse side. Thai culture contains values and beliefs that inhibit the development of entrepreneurship. For example, many Thai people prefer to seek employment in large enterprises (especially in public sector organizations) where there is perceived job security. For such people, self-employment is risky and brings uncertainty.

Socio-cultural norms that promote a belief that failure is unacceptable and involves 'a

loss of face' are unlikely to underpin a climate of entrepreneurship where learning from mistakes in a valuable lesson. Many studies of successful entrepreneurs show that learning from one's mistakes provide a valuable learning experience.

Financial Support

Adequate financial support is a key foundation underpinning entrepreneurial activity. Access to appropriate financing is a vital ingredient to beginning a new business. In the opinions of experts surveyed for this study, access to suitable forms of financing is an obstacle for new start-up businesses. Many start-ups fall at this first hurdle. Bank loan approval on the basis of assets rather than the quality of business ideas is a less than ideal situation in establishing a positive environment for entrepreneurship. In a sterile environment, budding entrepreneurs are likely to wither rather than flourish. Retail banking policies that emphasize asset-based lending over lending on the basis of business potential are unlikely to create a positive environment in which entrepreneurs and their ideas can develop.



There is a case to be made for banks in Thailand to review their lending regulations and design lending processes to encourage loan applications from budding entrepreneurs with sound business ideas. It is myopic to place an over-reliance on lending against capital assets while ignoring worthwhile business potential. Nascent entrepreneurs in need of limited working capital should be encouraged. A thoughtfully designed structure of tax incentives and tax holidays would encourage entrepreneurs with ambitions to start new businesses.

Additional Recommendations

Intellectual property rights (IPR) is an issue that needs to be taken more seriously. Perceptions by entrepreneurs (whether Thai or foreign) of weak protection of their IPR affect business confidence. Weak laws (or perhaps more importantly, inconsistent law enforcement) has a negative effect on innovation and new products and services. Entrepreneurs are likely to shy away from introducing new businesses in a climate that fails to protect their interests. Concerted campaigns should be launched to encourage consumers to avoid

buying pirated products such as software, DVDs, VDOs, CDs and fake designer brand clothing. Pirated goods hurt everyone-including the consumer who is denied access to products by companies unwilling to trade in a business environment hostile to respecting IPR. Existing IPR legislation must be enforced more consistently.

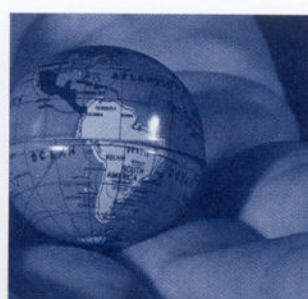
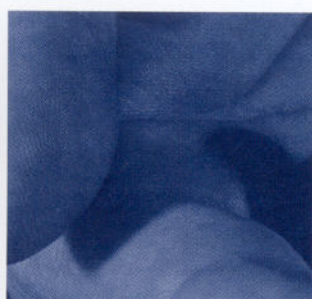
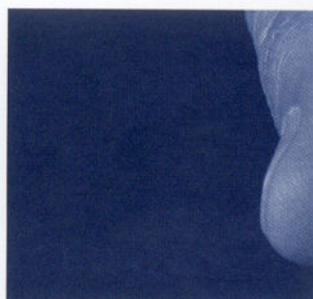
Research and development capacity is a barrier to Thai entrepreneurs as it prevents them from acquiring the latest technology. R&D investment by entrepreneurs warrants government level financial support. If Thailand is to succeed in building expertise in science and technology the provision of scholarships to entrepreneurs would encourage research. Education institutes and universities should focus on producing competent graduates in the sciences and technology. Graduates should be actively encouraged to join small companies. Technological developments in the region and farther afield need to be monitored and assessed. A home-grown climate of technology development needs nurturing-perhaps through mutually beneficial joint venture initiatives and strategic partnering.



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Overview of GEM Thailand 2002

The Asian economic crisis in 1997 stimulated the Thai government to focus on finding means for strengthening the Thai domestic economy. Various government policies and measures have been geared toward small and medium-sized enterprises (SMEs) and local communities. Financial supports and institutional establishment have already been put into the system. The impact on entrepreneurial activity and its relationship to economic development, therefore, needs to be monitored and assessed. This, in turn, provides a feedback and information loop for policy design and formulation.

The College of Management, Mahidol University realizes the importance of long-term study focused on Thai entrepreneurship to create national knowledge and an understanding of Thai entrepreneurs for academic purposes and policy makers. At the same time, the Global Entrepreneurship Monitor (GEM), a joint research between Babson College, USA and London Business School (LBS), UK, has been active since 1998 with an aim to generate

longitudinal data to provide an assessment of entrepreneurial activity on a global scale. The College has taken this opportunity to initiate a national entrepreneurship study and link to the international comparison, through GEM.

The GEM Project is aimed at generating longitudinal data to provide annual assessments of entrepreneurial activity. Thailand's research team has produced this national report which aims to measure and describe the entrepreneurial activity and environment of Thailand. The output of this Project has also been integrated into the overall data of all GEM participating countries.

The GEM Project defines entrepreneurship as follows:

"Any attempt at new business or new venture creation, such as self-employment, a new business organization, or the expansion of an existing business, by an individual, a team of individuals or an established business."

Within the scope of this definition, the key questions of the GEM Project are:



- Does the level of entrepreneurial activity vary between countries?
- Does the level of entrepreneurial activity affect a country's rate of economic growth?
- Why do individuals participate in entrepreneurial activities?
- Who are the entrepreneurs?
- What makes a country entrepreneurial?

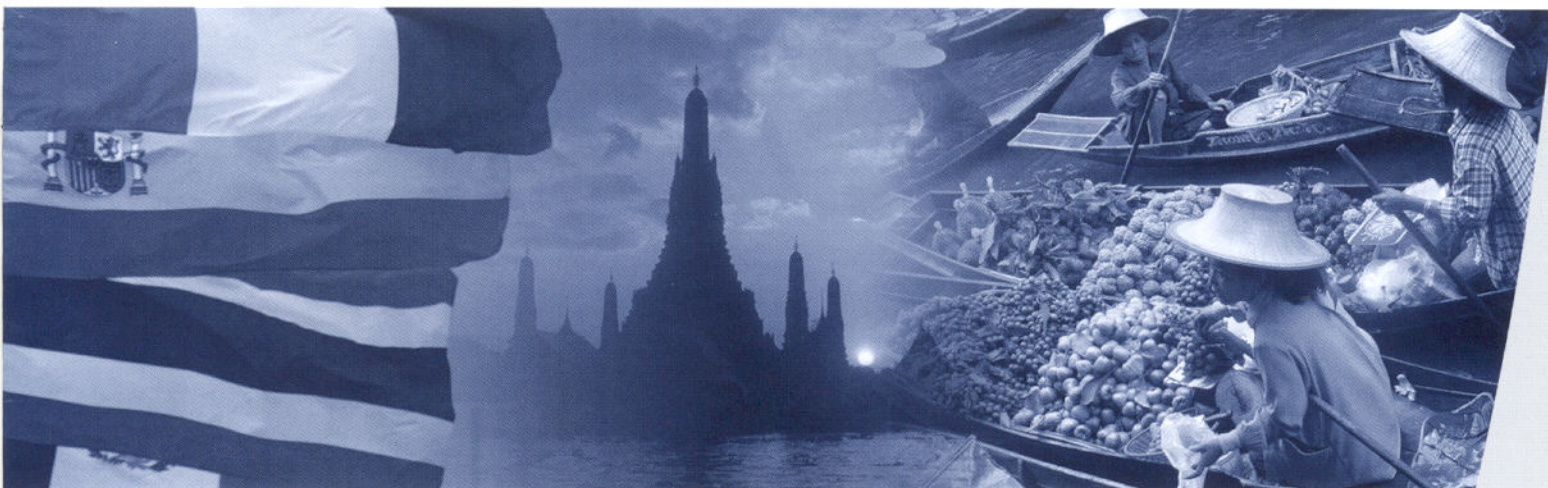
The Project works from the premise that entrepreneurship is critical to economic growth. With this in mind, the model of Entrepreneurship and National Economic Growth was designed specifically to facilitate an understanding and analysis, of conditions that support entrepreneurship globally.

The GEM Project will enable Thailand to monitor the transition of Thai entrepreneurs (via data gathered from longitudinal research studies); identify key attributes of entrepreneurship; identify successful entrepreneurs as role models for a younger generation; provide international

benchmarks through which Thai entrepreneurial activity can be compared and assessed; and provide current comparative data to inform Thai public policy.

The benefits of the Project are many, including:

- In addition to its own national data, each participating country receives the national data generated by other participating countries. This allows cross-comparisons to be made and leads the way to collaborative international academic research projects.
- Participating organizations are ready to engage in dialogue with other GEM participants, potentially enhancing the competencies of Thai researchers and creating forums for international exchange.
- Findings of the Project will be relevant to both Thai academic and business communities.
- There are valid benefits for Thai public sector policy makers relating to the development of a business environment that favors entrepreneurial activity.



The GEM Conceptual Model

The GEM model is a standardized conceptual framework used for international comparisons. The model provides an understanding of the relationship between entrepreneurship and economic growth.

It should be emphasized that the GEM research initiative is not designed to challenge the potential value to economic growth stimulated by the business activity of large firms. Rather, the GEM research initiative focuses on a complementary process that may

occur as nascent and growing firms emerge from the entrepreneurial process.

The GEM core concept applies to the function of two parallel streams of activities. These are from established firms (both large or small), and activities from the entrepreneurial process. Within an economy the entrepreneurial process accounts for a significant proportion of national economic growth. Figure 1 shows the overall GEM Model.

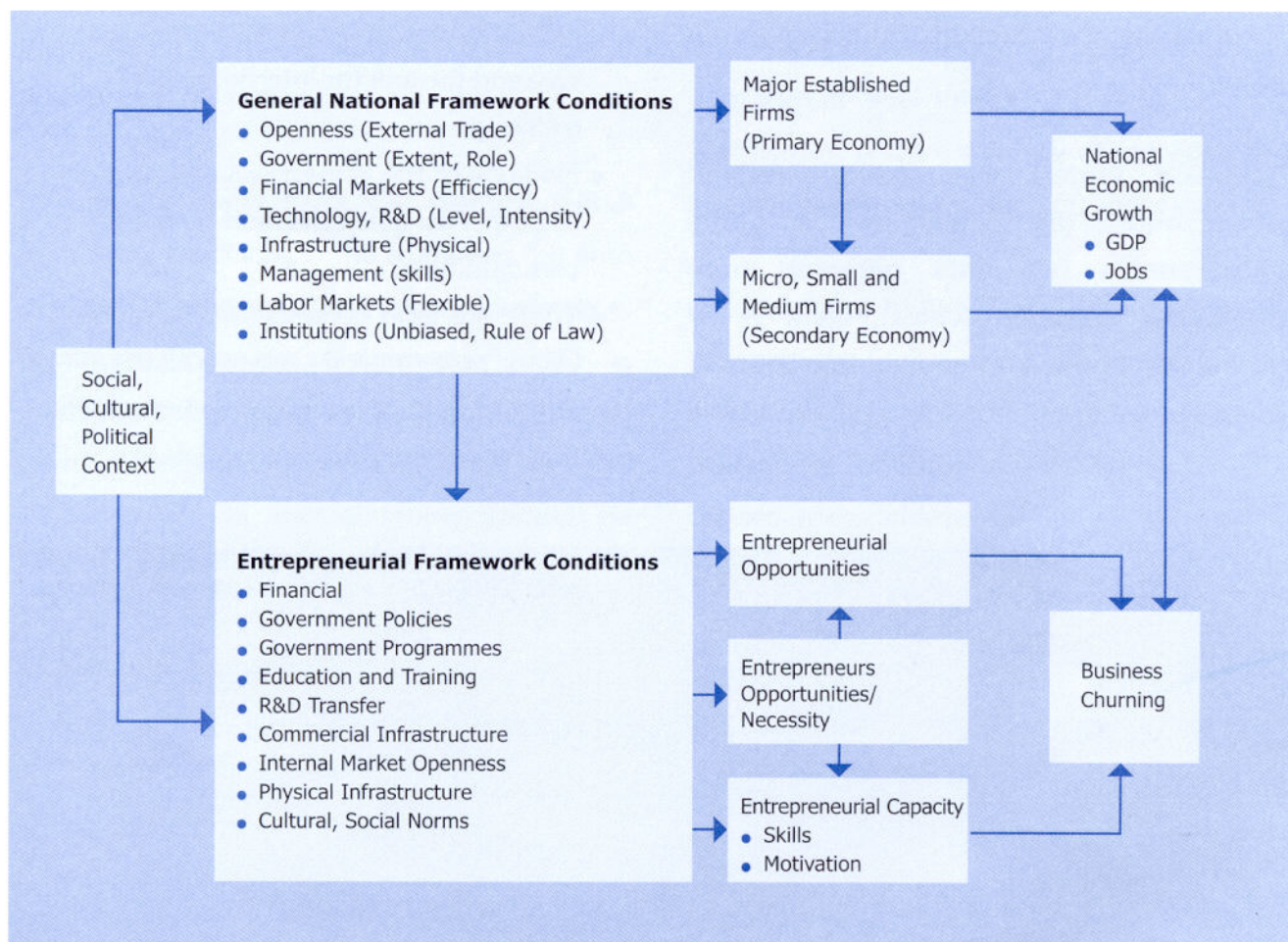
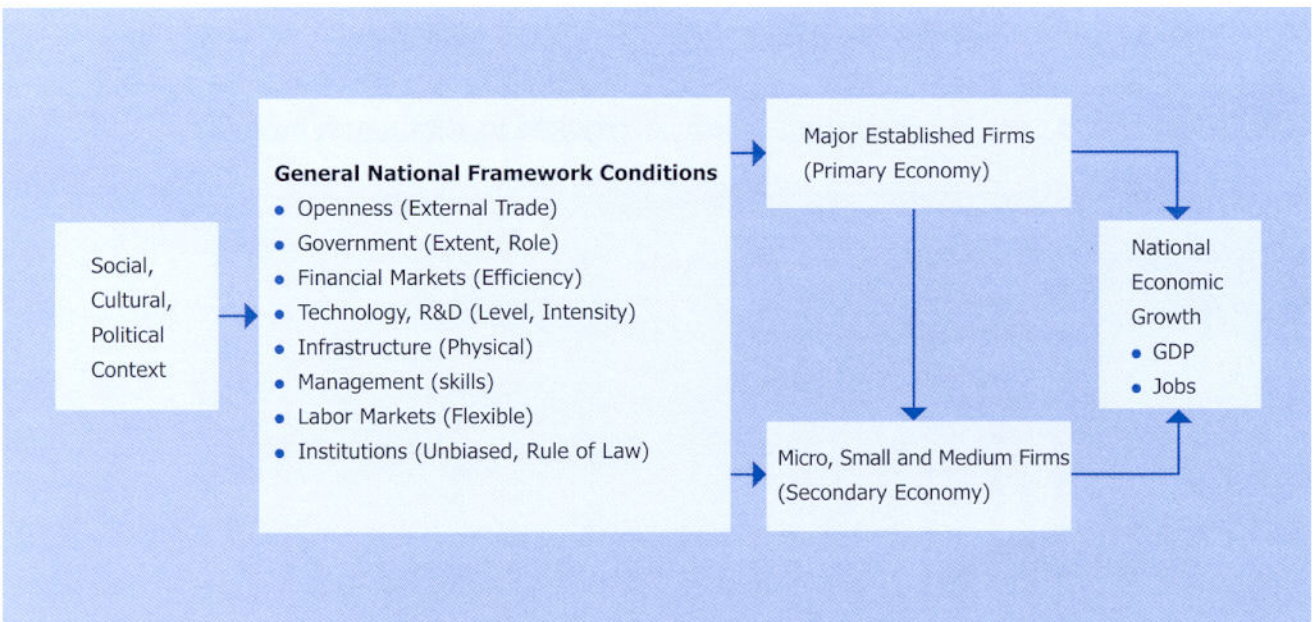


Figure 1: The GEM Conceptual Model

The GEM conceptual model is in two main parts:

- Part I: The role of larger established firms and national economic growth
- Part II: The role of the entrepreneurial process and national economic growth

Economic growth can only partially be explained by the business activities of established firms (shown as Part I of Figure 1 and Figure 2). In order to fully explain economic growth it is therefore helpful to understand factors that encourage start-up firms and how these factors contribute to the larger economy (shown as Part I of Figure 1 and Figure 2).



**Figure 2: The GEM Conceptual Model (Part I):
the Role of Larger Established Firms and Economic Growth**

Every country has its own cultural identity. This includes values and characteristics regarding work and its relationship to other aspects within the society. Social, cultural and political contexts are, therefore, key determinants of the general national framework conditions and entrepreneurial framework conditions. Included in these conditions is demographic structure, investment in education, social norms and attitudes concerned with

individualism, and society's perception of entrepreneurs.

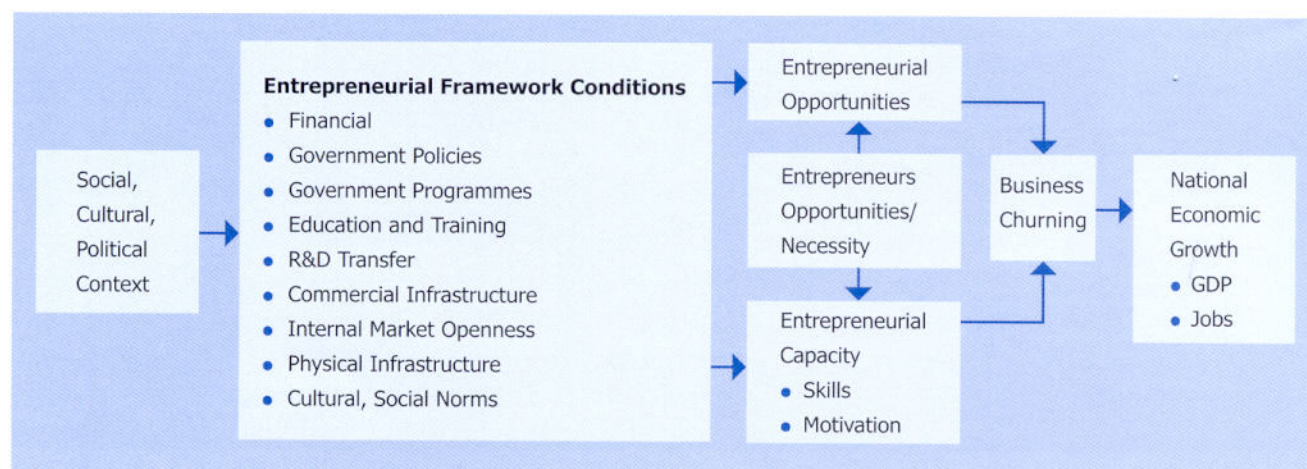
National framework conditions include market openness, the role of government, managerial skills, technology, research & development, physical infrastructure, financial markets, labor markets, social and legal institutions. These conditions form an overall business environment for existing firms - whether these are large or small.

Normally, major established firms have greater opportunity to reap benefits from the national framework conditions, since these firms are able to gain valuable experience from their ongoing business operations. In addition, these firms contribute to an economy directly and indirectly through small and medium-sized firms (SMEs).

Small and medium-sized firms (SMEs) contribute to the national economy by subcontracting business from major established firms or by operating their

independent businesses. However, in order to operate effectively, SMEs also draw on the general national framework conditions, such as access to utilities infrastructure and investment in education.

The GEM conceptual model (Part II) incorporates both the entrepreneurial process and national economic growth (Figure 3). This focuses on the conditions that make a country entrepreneurial. This part of the model also includes all aspects and conditions required to start a new business.



**Figure 3: The GEM Conceptual Model (Part II):
The Entrepreneurial Process and National Economic Growth**



Entrepreneurial Framework Conditions

Entrepreneurial Framework Conditions (EFCs) are considered to be those factors that impact a nation's entrepreneurial activity in terms of new venture start-ups and business growth. These factors include financial support, government policies, government programs, education and training, Research and Development (R&D) transfer, commercial and professional infrastructure, internal market openness, physical infrastructure, and social and cultural norms (See details in Appendix 1). EFCs are the focus of primary data collection in the GEM research.

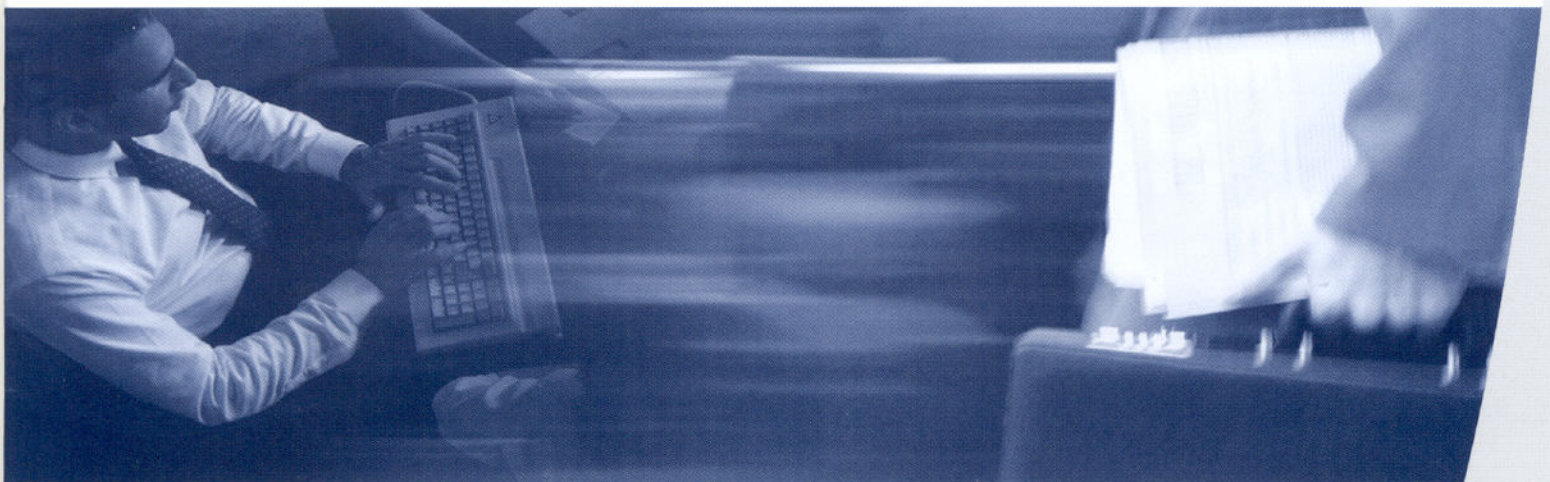
Entrepreneurial opportunities and capacities refer to the presence of business opportunities in the marketplace and the ability of people to take advantage of these opportunities. Entrepreneurial capacities combine the motivations of an individual when there is a new business opportunity and the extent to which individuals have the necessary skills to realize this opportunity.

Entrepreneurs are of two types: opportunistic entrepreneurs or necessity entrepreneurs:

- **Opportunistic entrepreneurs** are people who start up their business when they perceive a profitable opportunity and mobilize their skills and motivation to take advantage of this opportunity.
- **Necessity entrepreneurs** are encouraged by their personal economic situation to start up a business.

When individuals are motivated to mobilize their skills in response to a perceived profitable business opportunity, the outcome is the creation of new firms. Frequently, this leads to the demise of existing firms (for example, those firms which are less efficient than the newcomers). When new firms replace less efficient existing firms this phenomenon is described as business churning.

National economic growth reflects both sets of processes (see Figures 1, 2 and 3) in the Gross Domestic Product (GDP) and levels of employment. All activities in the GEM model contribute to national economic growth. Naturally, these vary from country to country.



Sources of Data

In assessing entrepreneurial activity in the participating countries the GEM research project relies on four standard sources of data: National Economic Data, an Adult Population Survey, Key Informant Interviews and Key Informant Questionnaires.

National Economic Data is gathered from a variety of published sources such as the World Bank, the United Nations, the Organization for Economic Cooperation and Development (OECD) and the International Monetary Fund (IMF). The Adult Population Survey aims to measure the entrepreneurial behavior and attitudes of working age adults (aged 18-64).

In each GEM participating country, the GEM coordinating team commissions a professional market research company to conduct an Adult Population Survey. The survey uses a standardized questionnaire, translated (as necessary) into the national language. The Thai survey in 2002 sampled 1,043 individual adults. The survey results generate a country-specific measure of entrepreneurial activity. This measure

is called the Total Entrepreneurial Activity (TEA) Index. The TEA index is used as a basis for international comparisons within the GEM research. (The TEA index is described in more detail later in this report).

A third component of the GEM research is face-to-face interviews with country experts. During the interviews country experts are asked their views, of entrepreneurship according to the Entrepreneurial Framework Conditions (EFC). Each country expert completes a standardized GEM questionnaire. In order to generate a variety of expert informant data, the GEM questionnaire includes both closed-ended and open-ended questions. Country experts are invited to express their opinion about specific areas of entrepreneurship according to their own area of expertise within the Entrepreneurial Framework Conditions (EFCs). Country experts are also invited to discuss specific issues of entrepreneurship; again according to their area of expertise. For the Thailand data in 2002, thirty-six institutions provided country expert informants. (See Appendix 2)



How did Thailand perform?

General National Framework Conditions

The general national framework conditions of Thailand dramatically changed after the impact of the Asian economic crisis in 1997 and the new government in 2001. These events significantly affected the operations of large established firms. In the GEM model, the national framework conditions are comprised of market openness, government, financial markets, technology and R&D, physical infrastructure, management, labor markets, and institutions. These are described in more detail below.

Market openness

Increasing openness of the domestic market can be seen in the ratio of international trade transactions (i.e. exports plus imports) to gross domestic product (GDP). In Thailand this important ratio has been growing over time and in 2000 was 125% (as shown in Figure 4). This reflects the significance of foreign trade in the Thai economy.

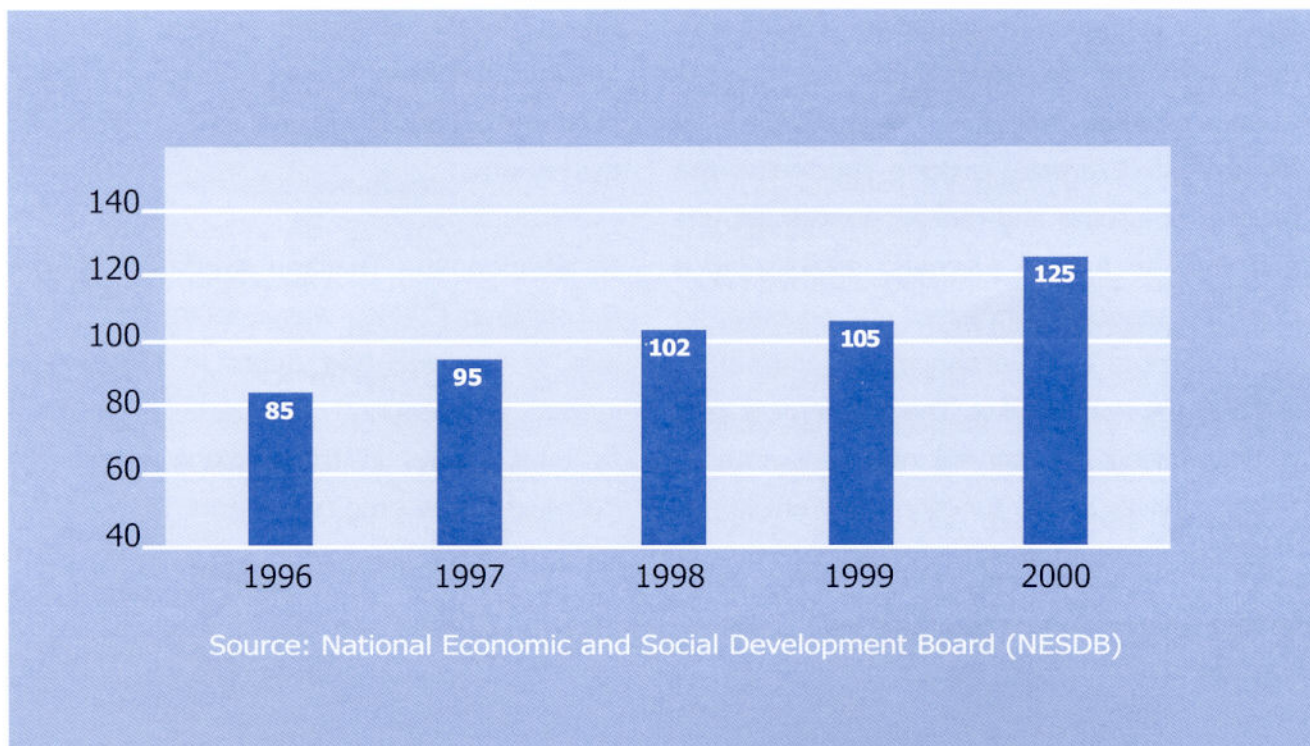


Figure 4: The ratio of international trade to GDP

Likewise, international investment is also important to the Thai economy. In the Thai economy, foreign investment in various sectors has become crucial to growth and job

creation. Hence, for the past two decades the Thai economy has become increasingly integrated into the world economy and the global community.

Government

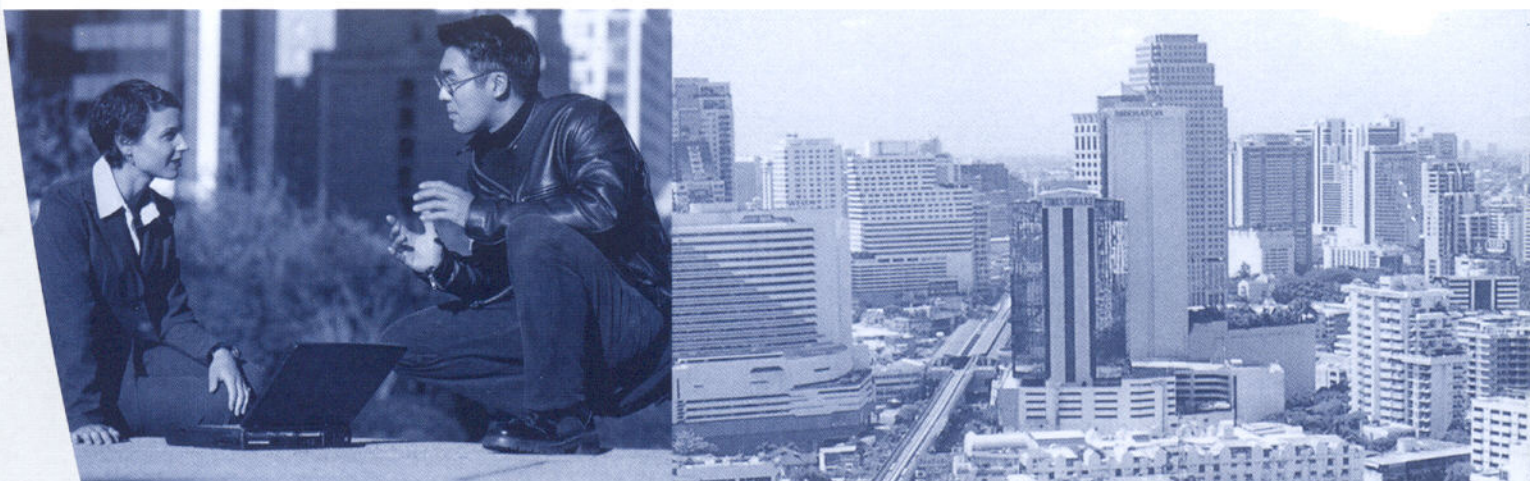
The Thai government plays an important role in the economy. Under the current administration, the government has emphasized strengthening the local economy while, at the same time, promoting international trade and inward investment in Thailand. This is generally known as the Dual Track Plus Economic Policy. On the one hand, the government aims to strengthen the foundation of the economy via the provision of knowledge and funding to business people. For example, banking and advisory services to SMEs were established to provide financial help and guidance to new and existing SME entrepreneurs. Peoples' banks have been set up as an alternative means for needy people to access lending sources. On the other hand, the government has launched incentive schemes to attract foreign direct investment and portfolio investment. Examples include shortening the process of issuing and renewing work permits and visas to foreign partners, establishing a one-stop service for investors and encouraging good corporate governance for companies listed on the stock market. The government itself is undertaking civil service reform to provide better services and to function more efficiently.

Financial markets

The Financial market in Thailand remains highly liquid. Since the economic crisis in 1997, commercial banks have been very cautious in their lending practices even as bank deposits continue to grow. In Thailand, bank credit is the single most important source of financing for new investment projects.

Low or moderate credit expansion can imply low investment and growth in the economy. The government, therefore, asks public banks (e.g. Krung Thai Bank) and more specialized financial institutions (e.g., the Industrial Finance Corporation of Thailand, IFCT) to take a more proactive role in facilitating lending activities. These, in turn, will help promote economic growth and investment in the country.

In addition, the Thailand Asset Management Corporation (TAMC) was established with the aim to manage bad debts in the banking system. Consequently, the ratio of bad debts to total credits in the banking system has decreased over time (see Figure 5).



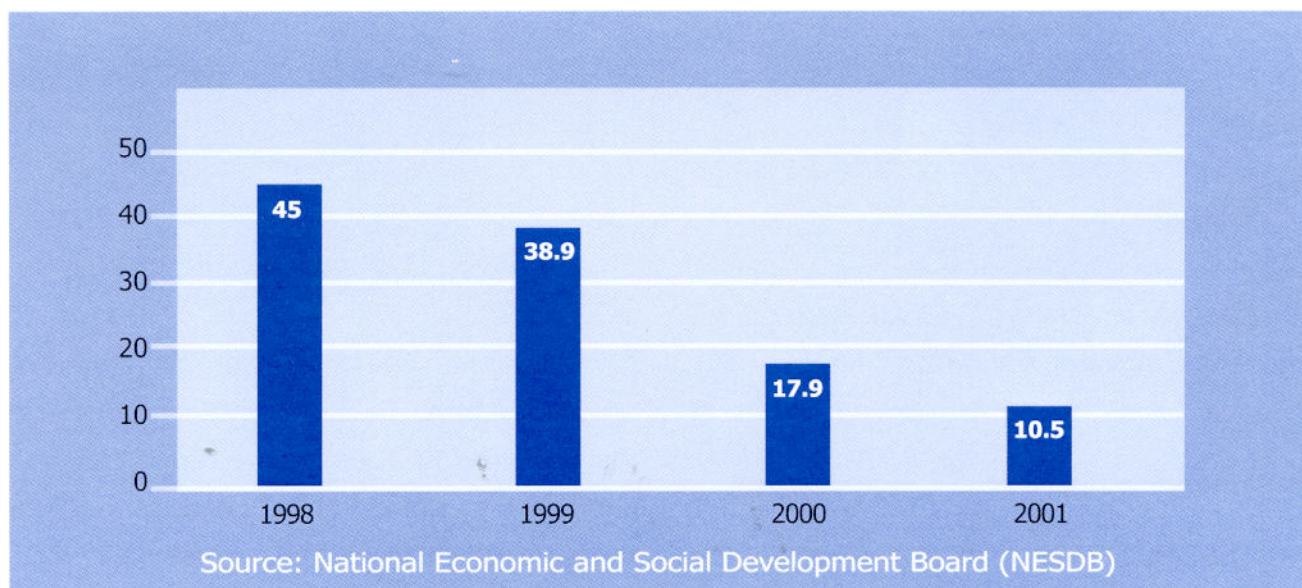


Figure 5: The ratio of bad debts to total credits

Technology and R&D

It has not always been easy to perceive the development of R&D activities and technology knowledge in all sectors, especially in some industries. Most new technology and know-how were brought in from abroad via imports and investment with very few sustained efforts on local improvement and generation. Moreover, technology transfer mechanisms are not efficient. Recent government policy has, however, been geared toward achieving technological progress and development in R&D to enhance national competitiveness and push the country towards a knowledge-based economy.

Physical Infrastructure

In the past 30 years one of the key contribution factors to Thailand's economic growth has been infrastructure development. This has helped lift up the standard of living, reduce but not eliminate inequalities between urban and rural areas, and increase national competitiveness.

Although infrastructure development projects have met demand in terms of quantity, problems remain in the quality, distribution, and utilization of completed infrastructure projects.



Labor Markets

Thailand is still short of skilled labor, especially in the manufacturing sector. In factories, semi-skilled laborers work mostly on assembly lines. Such environments do not encourage efficient technology transfer. That said, the Thai worker is highly flexible as evidenced during the 1997 crisis.

Prior to 1997, most Thai labor was in the manufacturing sector. When the crisis broke, the manufacturing sector was hit hardest. Factory owners cut costs by laying off workers. In response, unemployed workers adapted quickly to new jobs, which were plentiful in the service and agricultural sectors. Labor flexibility and availability remain economic strengths in Thailand.

Institutions

Since the crisis in 1997, public and private organizations have become more aware of

the importance of transparency and good governance in doing business. Vital data and timely information have been regularly released to the public to restore the credibility of responsible agencies. Various prudential standards have been launched to stabilize the system. In these respects, and when compared to the onset of the crisis in 1997, institutions have greatly improved their governance practices.

As shown in Table 1, in 1997 and 1998 as the Thai economy endured the crisis, the number of start-up companies contracted at the rates of 23.1% and 30.1% respectively. In 1999, once the economy turned around and started to register positive growth, the number of start-up companies also expanded. This is shown by the 26.7% and 12.9% growth rates in 1999 and 2000. It is expected that this trend will continue.

Table 1: Number of start-up companies in Thailand (1996-2002)

| | Start-up Company | | Number of all Existing Corporate Companies | Share of Start-up Companies |
|----------------|------------------|--------|---|--------------------------------|
| | Number | Growth | | |
| 1996 | 37,896 | -0.24 | 364,708 | 10.4 |
| 1997 | 29,149 | -23.10 | 384,018 | 7.6 |
| 1998 | 20,371 | -30.10 | 392,111 | 5.2 |
| 1999 | 25,818 | 26.70 | 411,096 | 6.3 |
| 2000 | 29,148 | 12.90 | 415,427 | 7.0 |
| 2001 | 31,757 | 8.90 | 427,961 | 7.4 |
| 2002 (Jan-Sep) | 27,504 | — | 440,176 | 6.2 |

Source: Department of Business Development, Ministry of Commerce

Cross-national Comparisons on Entrepreneurial Activity

The GEM Project compares the level of entrepreneurial activity among countries by using the Total Entrepreneurial Activity (TEA) Index. TEA is the percentage of the adult population who have actually been involved in setting up a new business over the previous 42 months. For the year 2002, TEA as a lagging indicator, measured start-ups from November 1998 to April 2002.

The GEM global analysis confirms that entrepreneurship is not uniformly distributed around the world. However, it clearly shows that certain geographical clusters demonstrate remarkable similarity in terms of the level of entrepreneurial activity. Three Asian developing countries, Thailand, India, and China, have a relatively higher level of activity than the developed Asian countries of

Japan, Hong Kong, Chinese Taipei, and Singapore, (Korea is an exception).

Thailand reported the highest level of entrepreneurial activity in all countries (as shown in Figure 3). It is estimated that 7.6 million individuals, or 19% of adults from 18 to 64 years of age, in Thailand either actively engaged in the start-up process or were managing a business less than 42 months old. This may have arisen from the impact of the economic crisis in 1997. The crisis wiped out many large companies in Thailand, especially in the financial, real estate and construction sectors. This created a supportive environment for both opportunity and necessity-based start-ups. In addition, in Thailand, participation by women in entrepreneurial activity was the highest in all GEM countries.

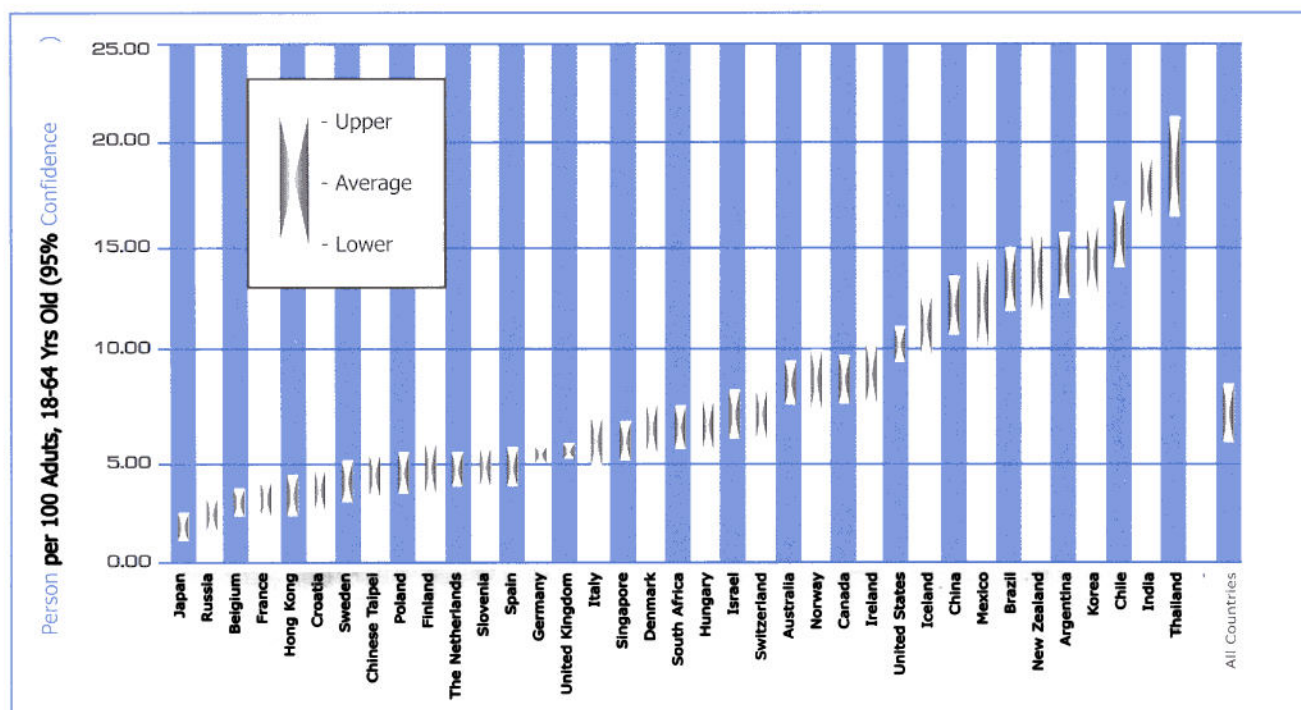


Figure 6: Total Entrepreneurial Activity (TEA) by Country

Who are Thai entrepreneurs?

For each GEM participating country, the GEM consortium commissions a professional marketing research company to conduct an adult population survey. The survey data is collected by means of a questionnaire. In Thailand, the marketing research company distributed the standard GEM questionnaires to a random selection of Thai people aged between 18 and 64 years. In 2002, the questionnaire sample was comprised of 1,043 respondents throughout Thailand. Approximately 60% (626) of the Thailand questionnaire respondents were female. Seventy-three percent (761) of the Thailand questionnaire respondents were working full-time or part-time.

Entrepreneurship activity by age and gender

As a first strategy of analysis, it is helpful to

delineate the general characteristics of Thai entrepreneurs. We asked two questions in particular:

- At what age do most Thai entrepreneurs engage in entrepreneurial activity?
- What are the gender differences of those who engage in entrepreneurial activity?

Figure 7 shows the demographic characteristics of entrepreneurial activity in Thailand by age and gender.

The data show that entrepreneurship is neither gender nor age-specific. Both males and females are involved in entrepreneurial activity at all age ranges, but mostly between 25-44 years of age. Noticeably, between 25 and 44 years of age, greater numbers of females than males engage in entrepreneurial activity.

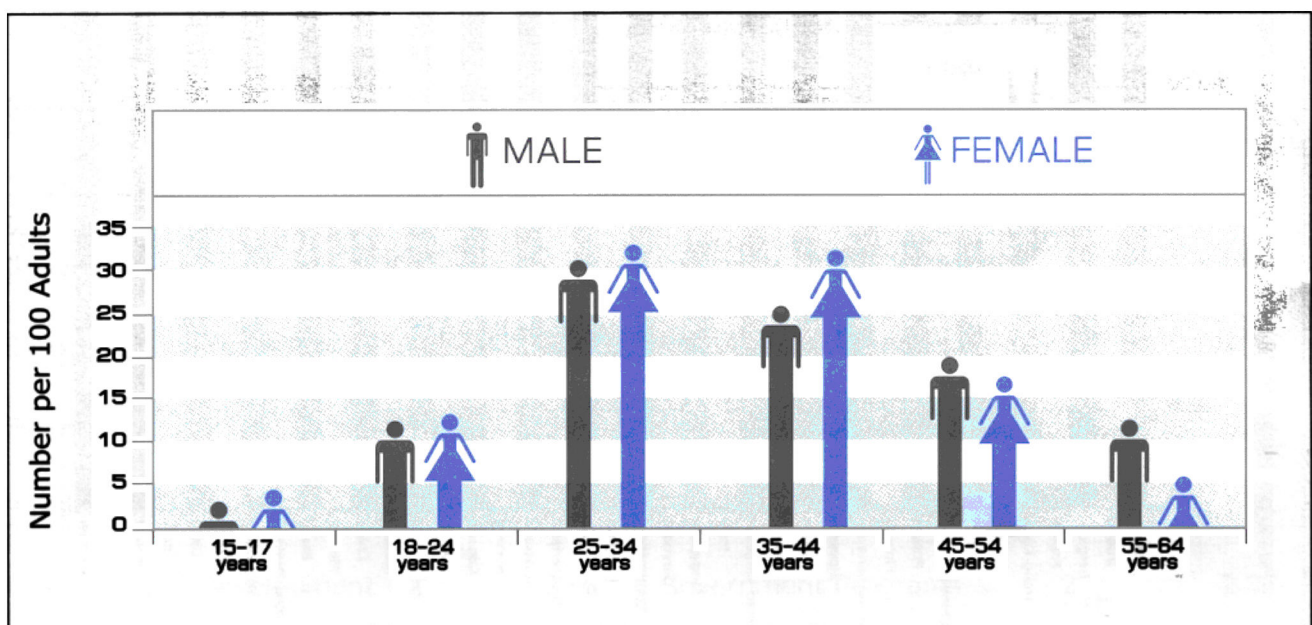


Figure 7: Thai Entrepreneurship Activity by Age and Gender



Entrepreneurial activity by motivation, age and gender

The GEM adult population survey defines two forms of entrepreneurship: **opportunity entrepreneurship** and **necessity entrepreneurship**. Opportunity entrepreneurs recognize worthwhile business opportunities. Necessity entrepreneurs may have no other ready work alternatives, or lack the necessary skills to find suitable work in established firms.

Survey respondents were asked the question: "Are you currently trying to start a new business alone or with others?" Respondents who replied that they are involved in start-up businesses were asked to choose one of the two reasons: whether they see an advantageous business opportunity or they have no better choices for employment. Figure 8 shows opportunity and necessity entrepreneurship activity by gender and age.

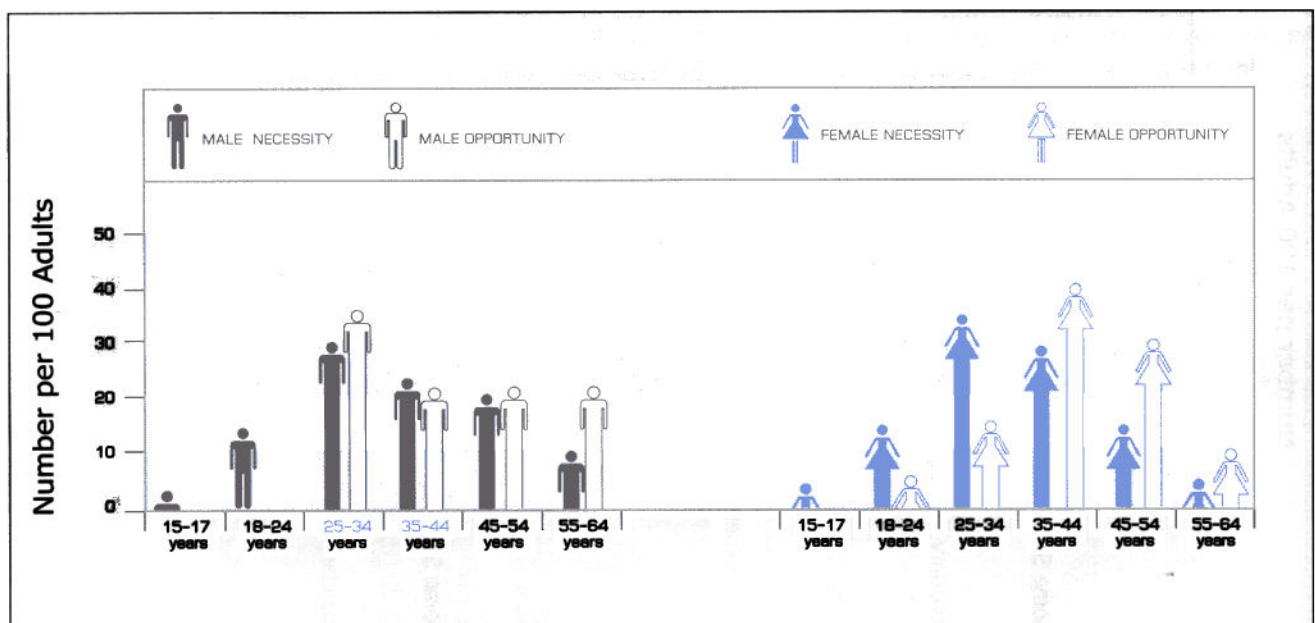


Figure 8: Opportunity and necessity entrepreneurship participation by gender and age

In the category of necessity-driven entrepreneurs, the largest group is females aged between 35-44, followed by females between the ages of 45-54. In these age ranges, females engage in entrepreneurial activity because they see they have few, if any, alternative choices for employment.

On the other hand, the highest level of opportunity entrepreneurship for females is in the age group 25-34. Here, females engage in entrepreneurial activity because they see worthwhile business opportunities. Males in the age range of 25-34 years rank highest in both opportunity and necessity entrepreneurs compared to the other age groups for male entrepreneurs.

Entrepreneurial activity: by motivation, educational attainment and gender

This section describes the relationship of educational attainment and gender to the motivation of entrepreneurs. Evidence from the GEM research findings in Thailand suggests that people who have attained high levels of education tend to be opportunity-driven entrepreneurs. Conversely, people who have received comparatively lower levels of education start their own business because they have less (and thus more limited) choice of suitable employment. Such entrepreneurs are driven by the necessity of their own economic circumstances. Figure 9 shows male and female entrepreneurs by level of education.

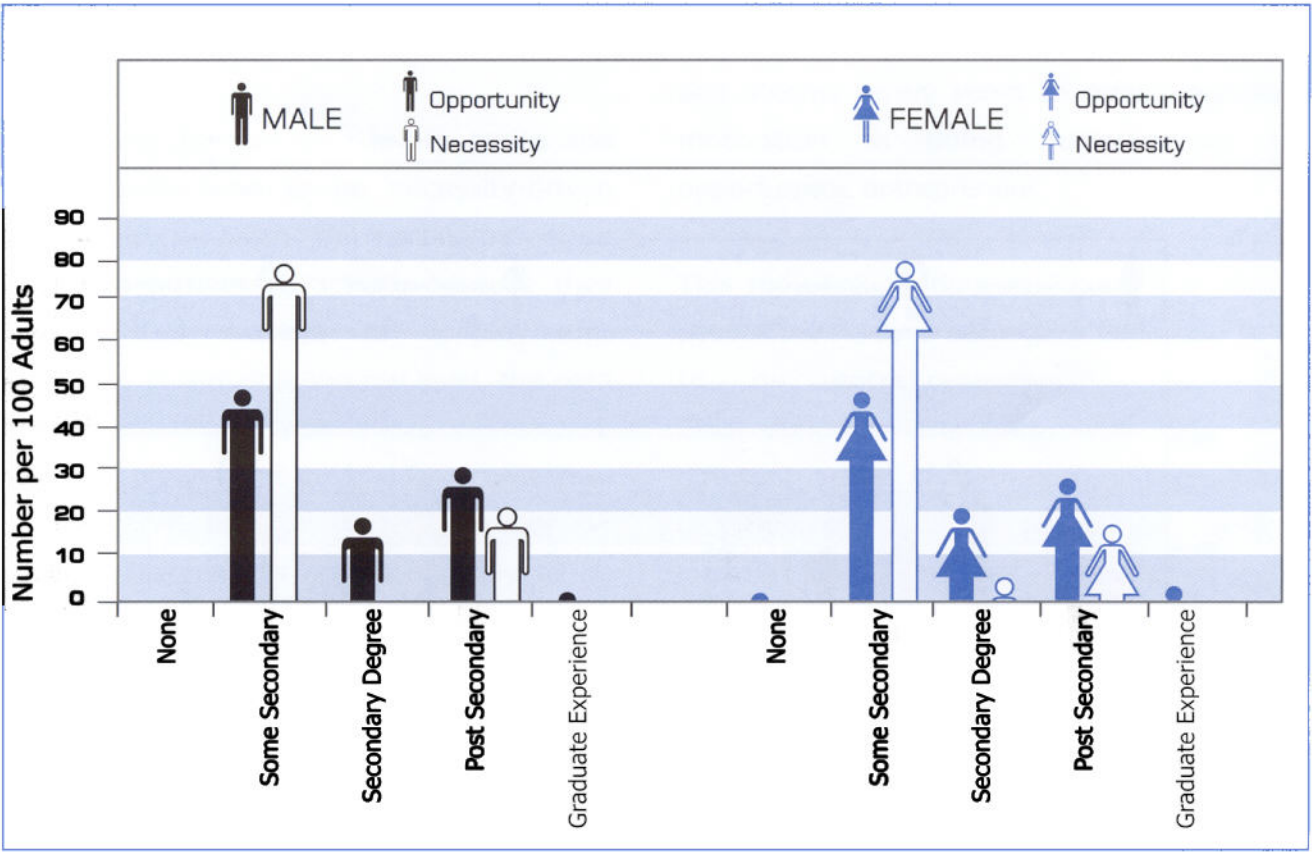


Figure 9: Entrepreneurial activity: by motivation, educational attainment and gender

The two largest groups of entrepreneurial activity are conducted by males and females who have had limited experience of secondary education. (This is shown in figure 9.) These people are necessity-driven entrepreneurs rather than entrepreneurs who see a worthwhile business opportunity. People who seek out opportunity-driven businesses activity tend to have completed secondary or higher education.

For people without any formal education, entrepreneurial activity is largely absent. These people have limited work choices. They tend to be manual workers with limited pay and limited work opportunities. In general, a lack of (or limited) education restricts a person's visions, skills and capability.

At the other end of the scale, entrepreneurial activity is almost non-existent for people who have a high level of education. These people tend to have a wider choice of employment. As such, they have little desire to take risks by

starting their own business until they perceive an obviously potential gain in a new business.

Entrepreneurship by motivation, household income and gender

This section describes the relationship between household income, entrepreneurial motivation and gender. One question addressed is:

- What is the difference in entrepreneurial activity in terms of motivation and gender according to income level ?

The GEM data is classified into three equal income groups. This categorizes the household income of respondents into the lower third, middle third and upper third levels. Household income data from the adult population survey are classified equally into groups according to size of household income, after that, the data are divided into three groups of equal size (or three equal percentiles of 33.33)



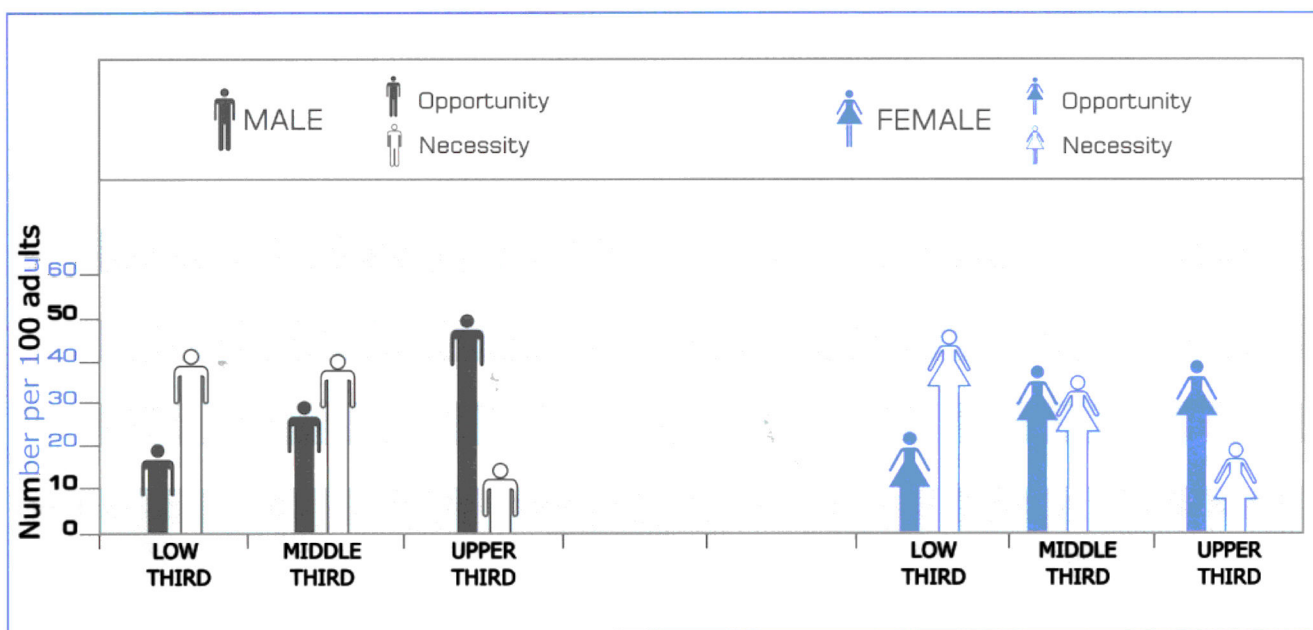


Figure 10: Entrepreneurship by motivation, household income and gender

The data show that males and females in upper income levels are more likely to be opportunistic entrepreneurs. The widest gap between opportunity and necessity-driven entrepreneurship is among males with upper income levels (as shown in Figure 10).

At the lower third income levels, males and females both tend to be necessity-driven entrepreneurs. Such entrepreneurs often engage in businesses activity because they have limited choices of employment. For people at a middle-income level, the data show differences between males and females: male entrepreneurs at the middle-income level are more likely to be motivated by necessity; female entrepreneurs are more likely to be opportunistic. This may be attributable to the tendency of males in the middle-income group to play the leading role in supporting their family. Females, who may have less social pressure as primary income providers, may seek entrepreneurial opportunities to augment existing family income.

Figure 9 shows that people with a secondary degree education and higher tend to be motivated by opportunity more than by necessity. This is also the case for people earning higher incomes (as shown in figure 10). Levels of education attainment and income levels seem to reflect personal motivation in doing business as an opportunistic entrepreneur.

This may link to data in Figure 9 in which people with only a secondary education tend to be entrepreneurs by necessity. This supports the view that the two different types of entrepreneurship reflect a person's education attainment and/or income level. The data show that with higher levels of education and/or higher levels of income people have more choice about the type of entrepreneurial in which they engage or whether they engage in entrepreneurship at all.

Start-ups and new firm participation by age and gender

This section describes the level of start-ups and new firm participation classified by age and gender. The data for start-up firms represents the number of adults per 100 (%) engaged in a new business start-up. A new business start up is defined as being actively

involved, being a full-time or part-time owner, and with no salaries paid for over three months. The definition of new firms is the number of adults per 100 involved in a new firm as owner and manager for which no salaries or wages have been paid for more than 42 months.

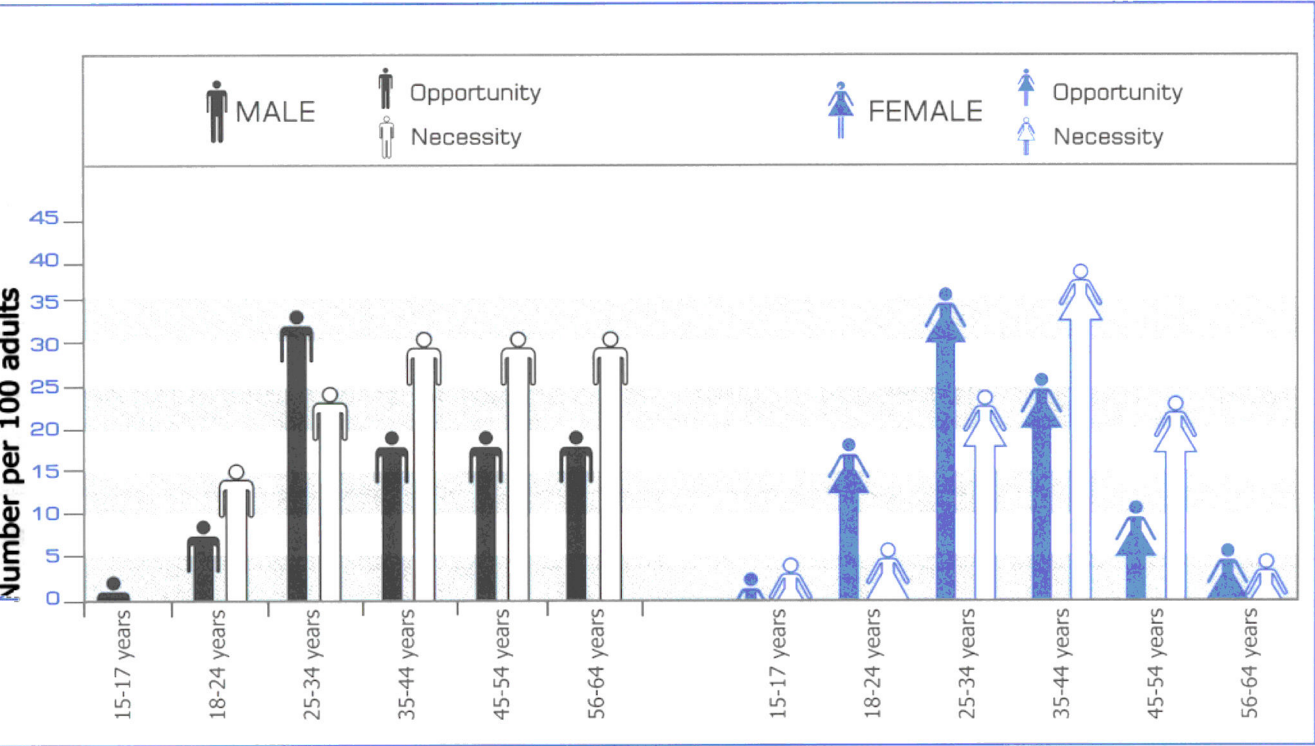


Figure 11: Start-up and new firm participation by age and gender

When considering start-ups and new firm participation classified by age and gender, at the age range of 18-24 years males are more likely to work in new firms than are females. At the later age range of 25-34, there is a similar pattern among both males and females in that they are more likely to work in start-up businesses. The research results show that between the ages of 34-44 years, males have a tendency to work in start-up businesses, while females have a tendency to work in new businesses. Between the ages of

45-54 both males and females are likely to work for new firms. The most elderly group of respondents at age range 55-64 also indicates that both males and females are involved in start-ups and new firms.

In conclusion, there are differences in the pattern of start-ups and new firm participation by gender at the age range of 18-24, where males are more involved in new firms. Conversely, at the age range 35-44, males are more likely to participate in start-up businesses than are females.

Entrepreneurial Framework Conditions in Thailand?

The GEM research examines issues concerning entrepreneurship from the perspective of each of the nine Entrepreneurial Framework Conditions (EFCs). The nine EFCs are financial support, government policies, government programs, education and training, research and development transfer, commercial and professional infrastructure, internal market cultural norms. (See the description of each

condition in Appendix 1) The nine EFCs are predicted to have a significant impact on the entrepreneurial sector. Each sub-set of questions in the GEM expert interview and questionnaire focuses on one of the nine EFCs.

Table 2 summarizes the results of the expert interviews on the strengths and weaknesses in respect of the nine EFCs for entrepreneurial development in Thailand.

Table 2: Strengths and Weaknesses for Entrepreneurship Development in Thailand
(Number of mentions by key informants during expert interviews)

| Strengths | Count | Percent | Weaknesses | Count | Percent |
|----------------------------|--------------|----------------|---------------------------|--------------|----------------|
| Social, Cultural Norms | 45 | 47 % | Education and Training | 34 | 31 % |
| Government Policies | 13 | 14 % | Social, Cultural Norms | 24 | 22 % |
| Internal Market Openness* | 7 | 7 % | Financial Support | 17 | 15 % |
| Commercial Infrastructure* | 7 | 7 % | Government Policies | 16 | 15 % |
| Government Programs | 6 | 6 % | Internal Market Openness | 5 | 5 % |
| Education and Training | 6 | 6 % | Research and Development | 5 | 5 % |
| Financial Support | 5 | 5 % | Commercial Infrastructure | 4 | 4 % |
| Physical Infrastructure | 5 | 5 % | Physical Infrastructure | 3 | 3 % |
| Research and Development | 2 | 2 % | Government Programs | 2 | 2 % |

* Mentioned equally by the key informants



What Impedes Entrepreneurship in Thailand?

In the national economy, a range of factors can collude to impede the development of entrepreneurial activity, including national culture, education, access to financing, access to professional services and infrastructure.

According to the data from the face-to-face interviews with key informants (Table 2), the three most important factors that inhibit entrepreneurial development in Thailand are:

- education and training;
- cultural and social norms;
- financial support.

These are discussed in some detail in the following sections.

Education and Training

In the opinions of our key informants, a critical element for the development of entrepreneurship in Thailand is education and training. Many key informants voiced serious concerns with Thai education. In their opinion, the Thai education system does not develop in students the capacity for analytical or creative thinking.

The key informants identified issues that stem from primary and secondary schooling and continue into the later stages of education. They asserted that education in Thailand pays inadequate attention to entrepreneurship. Some stated that there is inadequate instruction in market economic principles or to teaching basic principles of new firm creation.

Nor do higher levels of education fare any better. Here, informants identified shortcomings in both content and delivery. In terms of content, the informants said that insufficient attention is given to business training in areas such as managerial skills and marketing. In some informants' opinions this often results in a lack of know-how on the part of the students to operate businesses efficiently. According to many key informants, in Thailand the delivery and content of knowledge and skills training for entrepreneurship are inadequate, especially in tertiary academic institutions. There is a shortfall between what is taught and the needs of entrepreneurs. Figure 12 shows education and training effectiveness in the 37 GEM participating countries.

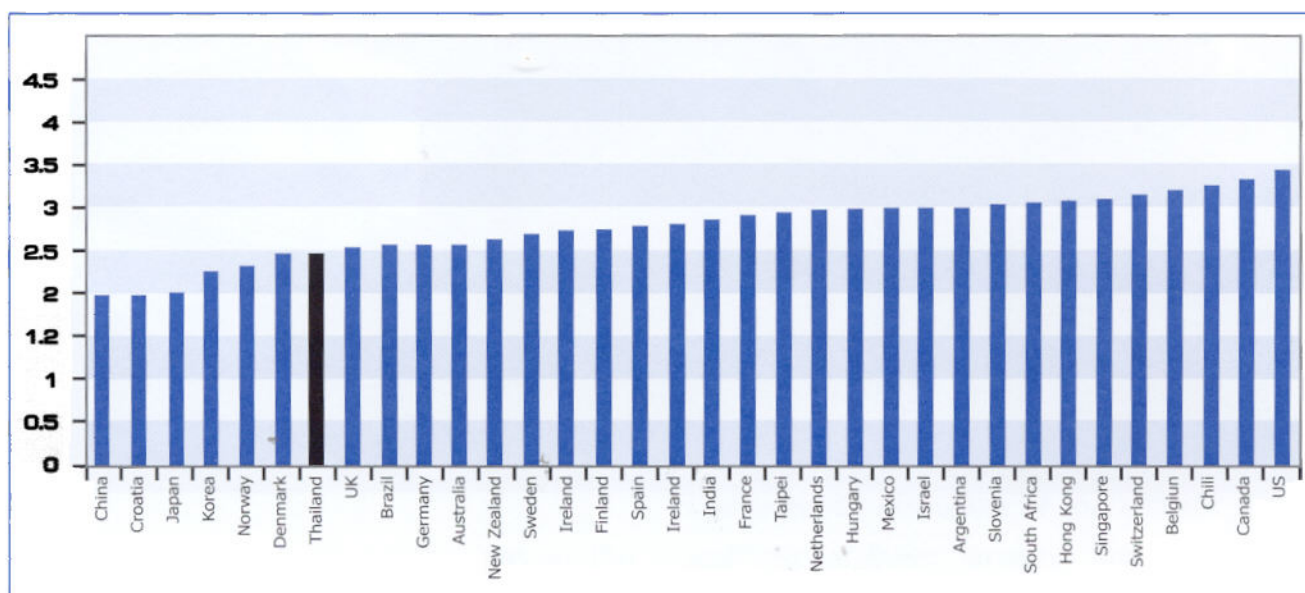


Figure 12: Education and Training Effectiveness (Post Secondary Level)

From the GEM global data, Thailand ranks in the bottom quartile in education and training effectiveness, especially at post secondary levels. In this area, several countries from the Asia-Pacific region rank higher: Australia, New Zealand, India, Chinese Taipei, Hong Kong, and Singapore. Lower ranking Asia-Pacific countries are Korea, Japan and China.

Some informants pointed out that language barriers inhibit Thai entrepreneurs from conducting business in other Asian countries as well as more far-flung countries on other continents. For historical reasons, close Asian neighbors (such as Myanmar, Malaysia, and Singapore) have higher levels of English language competency. However, historical fact is an inadequate excuse for current business deficiencies.

Cultural and social norms

Although overall the positive attributes of Thai social and cultural norms help strengthen entrepreneurship in Thailand, some social and cultural characteristics inhibit entrepreneurship development.

The key informants identified three characteristics. Some informants argued that some Thai people prefer to work in public sector organizations or large private enterprises. This is usually because of the widespread perception that such organizations provide long-term job security as well as other employee-related benefits such as health care and pensions. In the opinions of some key informants, many Thai people seek careers in such organizations to the detriment of self-employment, especially in uncertain economic times. Some informants noted that Thais may shun self-employment for a number of psychological reasons. For example, some people may have a negative mindset towards competition. These people feel that managing one's own business is too difficult or stressful. People born in a period of economic stability may have little motivation in starting up a new business whereas previous generations may have had to struggle to make their way in the business world.



Another issue mentioned by the key informants focuses on the innate character of certain Thai people. Informants mentioned that, in their opinion, some Thai people lack discipline. This includes issues relating to timekeeping, sustained interest in work projects and quality of work effort. In the personal experience of some informants, Thai employees often demand wage increases without related improvements in productivity which is an unjustifiable situation in a competitive market environment.

Financial Support

For many of the key informants, the third critical issue is lack of funding for budding entrepreneurs. In Thailand, commercial banks normally require collateral from loan applicants. Many – if not all – banks take account of available collateral as a major

criterion for granting loans. Less emphasis is given to an applicant's business potential. Instead, banks tend to focus on capital assets such as land and buildings which can be mortgaged against a loan. Under these circumstances, a new entrepreneur lacking capital assets would be unlikely to raise sufficient funding to start a business. Entrepreneurs wishing to expand their new business are likely to face the same situation.

Intellectual Property Rights (IPR)

Comparing Thailand to other participating GEM countries, the key informants identified two important weaknesses. These weaknesses relate to Intellectual Property Rights (IPR) and Research & Development Transfer. Figure 13 shows the global ranking of Intellectual Property Rights (IPR) protection.



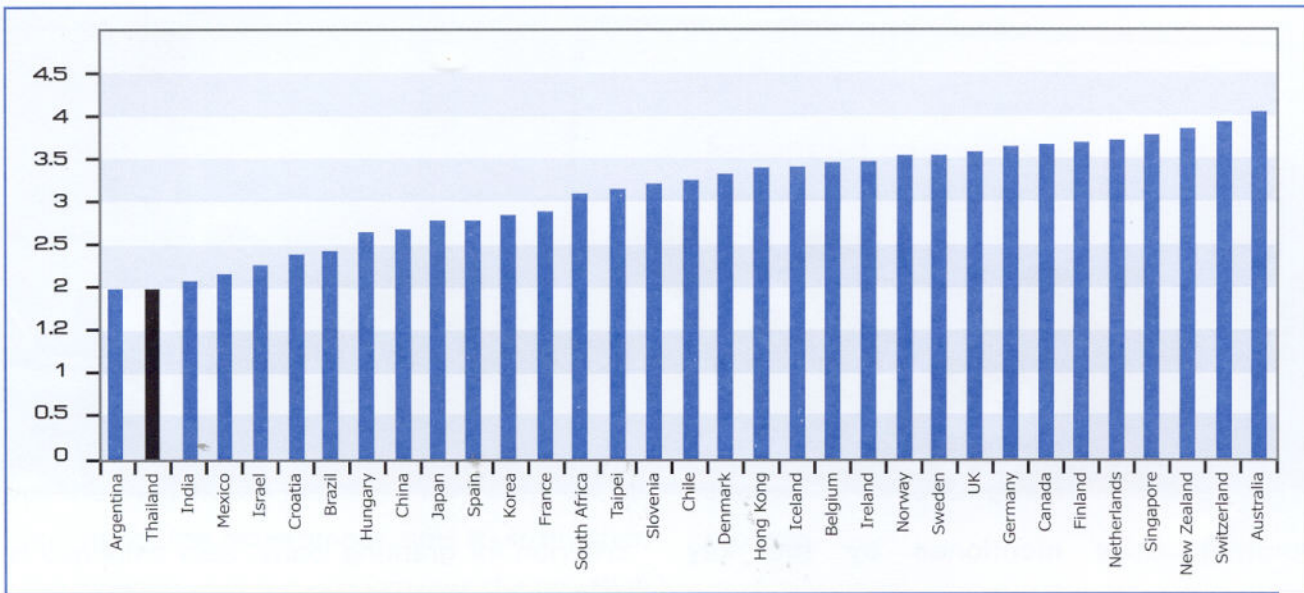


Figure 13: Intellectual Property Rights (IPR) protection

In the global GEM data, Thailand ranks second lowest of the 37 GEM participating countries in terms of Intellectual Property Rights (IPR) protection, with only Argentina ranking lower than Thailand. Many visitors to Thailand experience first-hand the extensive sales of pirated computer software, video cassettes of 'first run' films, CDs, DVDs, fashion clothing brands, and other copyrighted and trademarked products. Many people would say the trade thrives.

While Thailand has extensive IPR legislation, the informants considered that this is inefficiently enforced. Inadequate enforcement leaves loopholes for copyright infringements. One consequence of this is a low level of trust by companies that their patents, copyrights and trademarks will be respected and protected. If companies (whether Thai and foreign) cannot trust that their intellectual capital will be respected and protected by law they will think twice before locating offices and factories in Thailand. This is likely to have a knock-on

effect on the number and types of business organizations that choose Thailand as a location for their base of operations in the region.

Science and Technology

Concerning science and technology, the key informants stated that investment in Research and Development activities in Thailand is relatively low. The informants noted that access to new research and technology in Thailand is 'not a level playing field.' In the informants' opinions, new and growing firms in Thailand do not enjoy access to new research and technology as much as large, more established firms. Moreover, SMEs do not consider long-term and technology development an important issue. This creates a serious impediment for Thai SMEs. Firms unable to access the latest technologies risk being stifled.

Figure 14 shows the levels of research and development transfer across the GEM participating countries

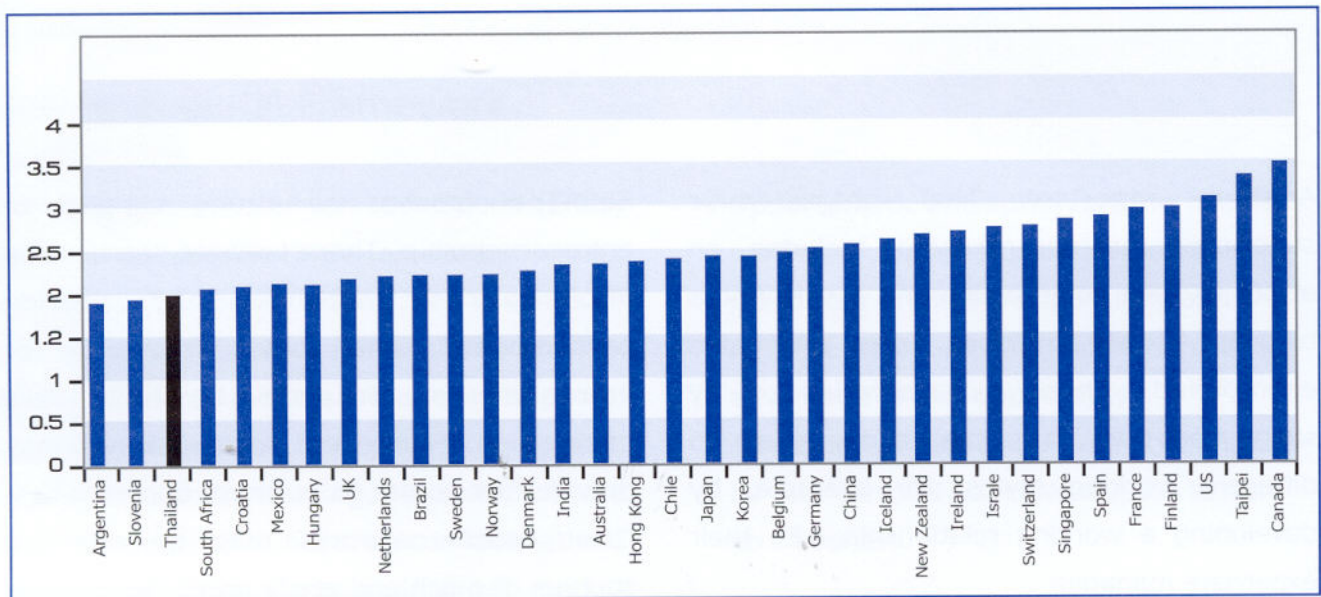


Figure 14: Research and Development (R&D) transfer

Figure 14 shows that in terms of R&D transfer Thailand ranks third lowest across the GEM participating countries. This indicates a critical issue: lack of Research and Development is still a major problem for Thai entrepreneurs. To compound the issue, there is a shortage of human resources in science and technology. According to the expert opinion, this issue stems from a misconception of Thai education (especially at university levels) in producing science and technology graduates. Some expert informants noted that the proportion of Thai students graduating with engineering and science degrees is quite low when compared with other Asian countries such as South Korea or Singapore.

What Promotes Entrepreneurship in Thailand?

According to the key informants, the four most

important strengths supporting entrepreneurship development in Thailand are:

- cultural and social norms
- government policies
- internal market openness
- access to physical infrastructure

Cultural and Social Norms

Of the key informants, 18 out of 39 (47%) say that Thai culture has a number of inherent characteristics that are highly supportive of entrepreneurship. In particular, the key informants suggested that Thai culture celebrates individual success achieved through one's own personal efforts. In Thailand, successful entrepreneurs seem to enjoy high levels of status and respect. This is exemplified by the many media stories which profile successful entrepreneurs and their business achievements.

Another important Thai characteristic supporting entrepreneurship includes an ability to seek compromise and a willingness to adapt to new situations. Some informants exemplified these characteristics by suggesting that Thais can readily adapt to different working styles, for example, by developing a working relationship with their expatriate manager.

In the opinions of the key informants, Thai entrepreneurs are persistent, hard working and willing to take risks. Such innate traits would naturally help entrepreneurs to develop and grow. Some of the key informants say that, in their experience, these character traits are greatly advantageous to those having ambitions to be entrepreneurs.

Many of the key informants noted the strong social linkages that are an attribute of

Sino-Thai families as strong support to entrepreneurship. These linkages can develop into business networks and provide psychological and other support for entrepreneurs fortunate to have this background. Family and social linkages may provide fast access to business opportunities. Often, such networks may be effective sources of quick and ready access to working capital.

The data also show that Thai people in general have a positive attitude towards women in business in Thailand. It is considered socially acceptable for women to start a new business as a career option. According to the GEM 2002 global research, in the level of positive support for entrepreneurial women, Thailand ranks in the top five in the 37 GEM participating countries as shown in Figure 15.

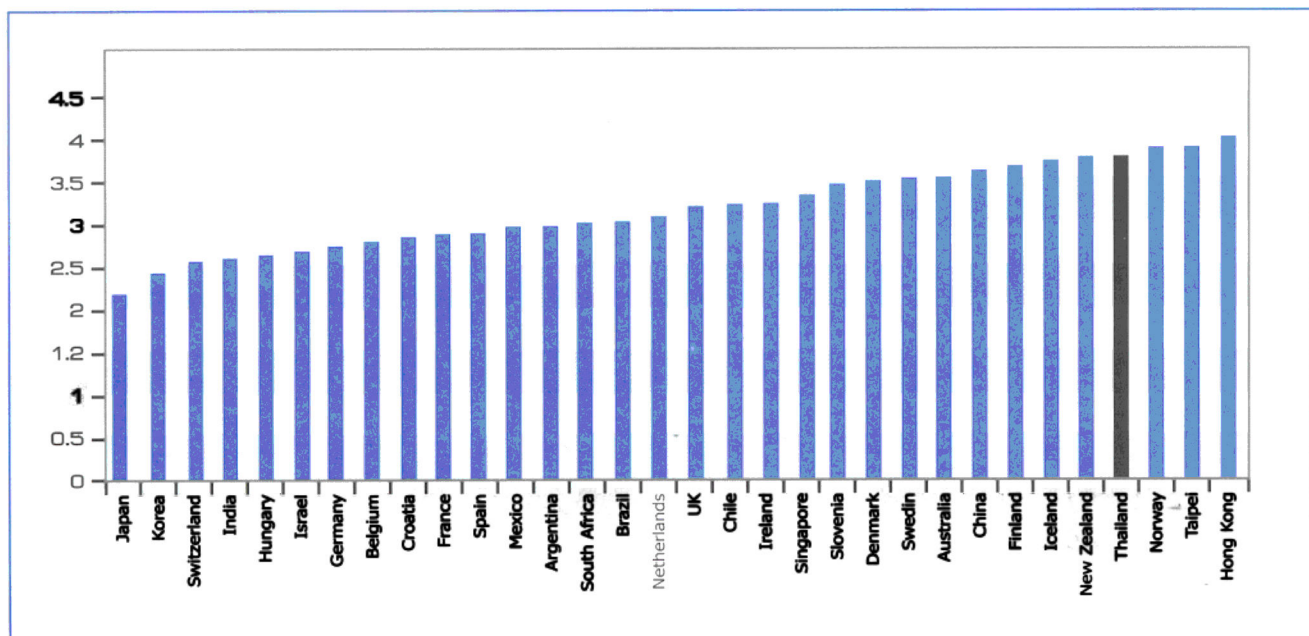


Figure 15: Social perception of women entrepreneurs

The data show that in Thailand female entrepreneurs, in their entrepreneurial ventures, enjoy the support of society at large. Thai people accept that women can choose their own careers, including running their own business. In Thailand, as far as entrepreneurial activity is concerned, there appears to be little evidence of gender discrimination.

Activity (TEA) index for women. As clearly indicated, across all participating countries, Thailand ranks the highest in the acceptance of entrepreneurial activity as a suitable career option for women. The GEM 2002 data show that among 100 working adults, 18% of Thai women are engaged in entrepreneurial activities. This is some considerable way ahead of the second ranked country India (14%) and the third-ranked Argentina (11%)

Figure 16 shows the Total Entrepreneurship

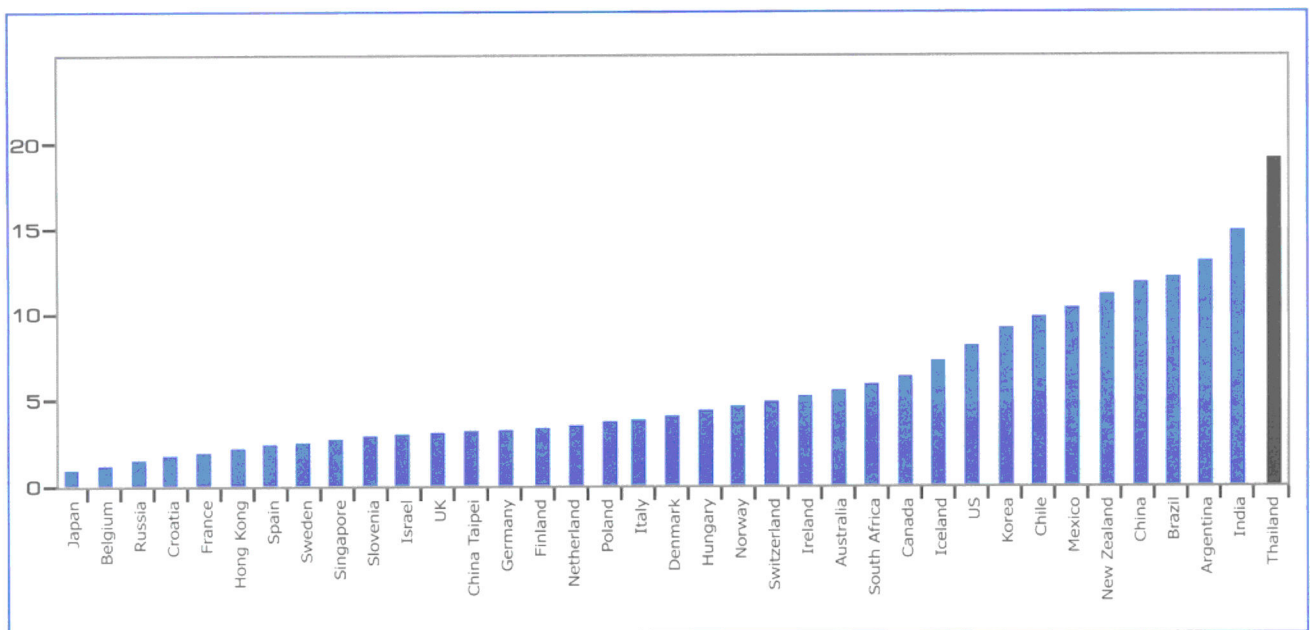


Figure 16: Total Entrepreneurial Activity for Women

Government Policies

As would be expected, governments play a key role in encouraging entrepreneurship. Governments can encourage or hold back entrepreneurship in an economy through their selection and prioritization of policies. The customary role of government policy-making is to establish crucial building blocks for business and to nurture national entrepreneurial activity.

The key informants consider that the present Thai administration is attempting to establish a robust environment in which entrepreneurship can flourish. This is intended to promote an investment climate to encourage foreign inward investment. With this aim in mind, the Government has begun to deregulate certain industry infrastructures such as telecommunications and mass transportation.

In the public sector, the Government has begun to improve the transparency of policies and management processes. In rural areas, the Government has also taken steps to promote community self-sufficiency by introducing the 'One Tambon, One Product' (OTOP) project. In an effort to stimulate employment at the lower levels of the economy, the Government has set up a 'Village Fund' of one million baht for each village. A number of public agencies have recently been established to support local entrepreneurs, for instance, the Office of SME Promotion (OSMEP) and the Small Industry Finance Corporation (SIFC).

The 39 key informants gave equal mention to i). internal market openness and ii). access to commercial and professional infrastructure as vital attributes to support entrepreneurship in Thailand.

Internal market openness

Internal Market Openness involves the existence and levels of any entry barriers for new and growing firms attempting to establish their businesses. This is important because budding entrepreneurs will consider the prevalence of entry barriers when considering whether to start their businesses. The existence and level of any entry barriers thus encourages (or more often inhibits) new and growing firms.

Figure 17 shows that Thailand ranks fifth in internal market openness. In the opinions of the expert informants, the domestic markets for consumer and business-to-business goods and services change dramatically from year to year. This phenomenon creates opportunities for entrepreneurs to launch their range of products and services. Rapid changes in the market, which in effect means consumers

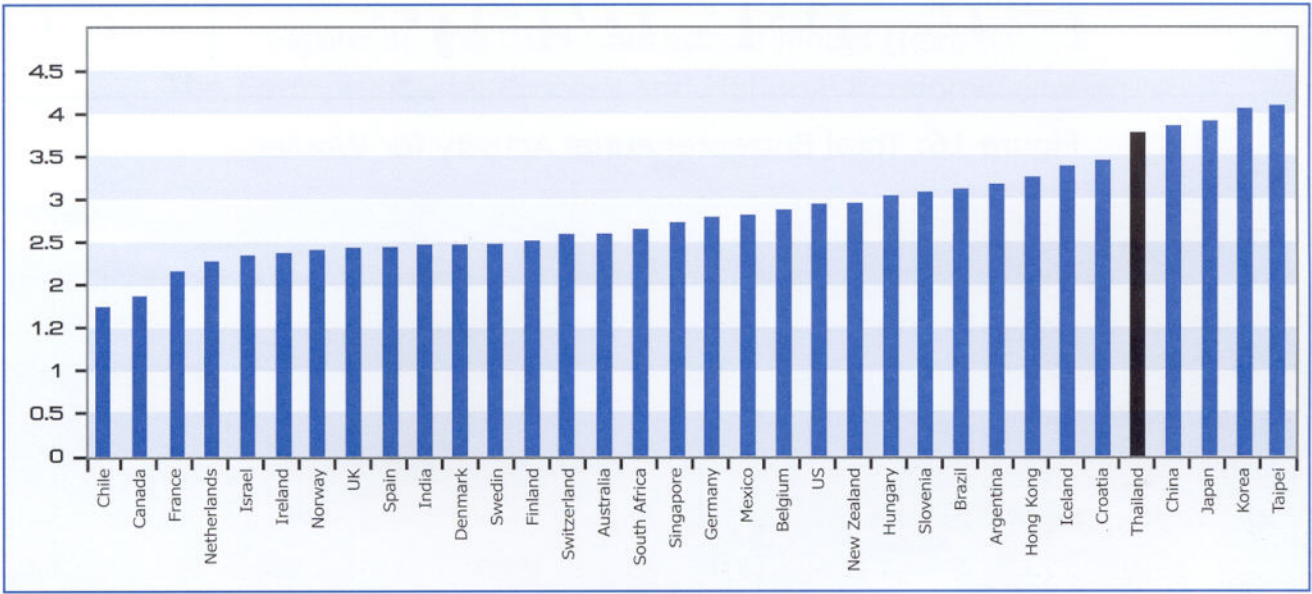


Figure 17: Rapid internal market change of B2B and B2C

seek new products and services, subsequently give further opportunities for entrepreneurs to expand their range of product offerings. Figure 17 shows the rapid internal market change of Business-to-Business (B2B) and Business-to-Consumer (B2C)

In Thailand, dramatic market changes from year to year mean that there is always new business potential for entrepreneurs. However, and as noted earlier, there is also market openness with few barriers to entry for new firms who are free to enter the marketplace. Markets with few barriers to entry tend to be intensely competitive as new firms are easily able to enter the market to take advantage of business opportunities. However, while consumers will have much choice among goods and services offered, this also means that incumbent firms need to keep up with evolving market needs, perhaps through innovation or customer development.

Access to physical infrastructure

Physical Infrastructure refers to the extent that new and growing firms have access to physical infrastructures such as transportation, basic utilities, communications and the Internet as well as the cost of accessing these infrastructures. These infrastructures are vital elements in establishing a new business as they serve the essential needs of businesses.

In terms of the GEM research in Thailand, the experts consider that new and growing firms can get good access to some business services. In practice this means that, for example, access to utility services can be completed in about one week. These services include communications such as telephone and the Internet. This means that nascent entrepreneurs have relatively ready access to some of the essential communications services.



Conclusions

Entrepreneurial Activity and Environment

The GEM 2002 results presented several interesting findings about Thailand. Many people believe that the economies in Asian industrialized countries such as Japan, Taiwan, Hong Kong and Singapore show high entrepreneurial activity. The key findings in the GEM research study show that entrepreneurial activity in developing countries like Thailand is very high. This also contrasts with the beliefs of many national experts. Individual adults in Thailand engage in entrepreneurial activity as they perceive a business opportunity. This is also supported by a very high participation of women in entrepreneurial activity.

One of the most favorable entrepreneurial framework conditions in the study was the ease of access to physical infrastructure. Information, communications and technologies (ICT) as enabling technologies can help entrepreneurs cross a threshold of learning capability. ICT infrastructure in the economy should be developed and made accessible nationwide.

The environment for entrepreneurship was supported by Thai socio-cultural norms, government policy, internal market openness, and ease of access to physical infrastructure.

The most important strengths supporting entrepreneurship development in Thailand are cultural and social norms and government policies. Many positive attributes of Thai culture can support entrepreneurial development. One such attribute is the willingness of Thai people to celebrate entrepreneurial success and to accord status and respect to successful business people. The current Thai Prime Minister, Dr. Thaksin Shinawatra, is from a family of entrepreneurs and has made a successful business career.

Other cultural traits noted by the key experts included the ability to compromise and be adaptable, persistence, hard work and a willingness to take risks. Key informants praised these characteristics as favorable to the entrepreneurial spirit. Many informants





noted that Sino-Thai families have strong social ties and that these ties often encourage members to develop business links and support their business ventures. These networks may often be a source of working capital. It is also noted that the Thai culture has a positive attitude towards women entrepreneurs.

However, culture is a two-edged sword. Although many positive attributes of Thai culture help and facilitate entrepreneurship, some attributes of Thai culture inhibit entrepreneurship development. These include the preference of some Thai people to seek long-term job security and fringe benefits by

working in public sector organizations or large companies. For some Thai people self-employment may seem an unattractive work option as it seems too difficult or too stressful.

Recent government policies have been geared toward entrepreneurial activity. The present Thai Government has introduced initiatives to encourage entrepreneurship. These include systematic programs of deregulation and public sector reform, for example in Education and Health Care. At the regional level are new initiatives such as 'One Tambon, One Product' (OTOP) and the 'Village Fund' scheme.

The Thai government has allocated funds of 75,000 million baht to The Village Fund Program that supports entrepreneurial activities in local communities in various provinces. Public agencies such as the Office of SME Promotion (OSMEP) and the Small Industry Finance Corporation (SIFC) have been established to focus on the needs of small and medium-sized enterprises.

The government has recently established the SME Institute and various training programs offered by Thai universities to promote and support entrepreneurship training for small and medium-sized enterprises (SMEs). The Small Industry Financing Corporation has been turned into the SME bank in order to broaden its scope of operation. The Office of SME Promotion has been established to facilitate, coordinate, and monitor SMEs development in Thailand.

Other key issues cited by the informants as important were internal market openness (a lack of entry barriers) and access to physical infrastructure. Additional issues that inhibit entrepreneurship development are Intellectual Property Rights (IPRs) and Research and Development Transfer.

From the GEM global data, Thailand ranks in the bottom quartile in education and training effectiveness. The key informants believe that appropriate education and training is critical to the development of entrepreneurship in Thailand. In this, many key informants expressed serious concerns about education content and quality. Many key informants suggested that Thai education does not encourage students to think analytically or creatively. Primary and secondary schooling were identified as key areas in which to focus but the key informants also suggested that



there is room for improvement at the level of tertiary education. In the opinions of some experts, inadequate attention is given to entrepreneurship during education in Thailand.

For many key informants, lack of funding for budding entrepreneurs is a critical issue. In a banking system that gives priority to asset-based lending a new entrepreneur lacking capital assets would be unlikely to raise sufficient funding to start a business.

Toward an Entrepreneurship Policy

From the data evidence provided by the GEM 2002 study, Thailand is one of the world's most entrepreneurial economies.

However, in reality, the various government programs do not wholly correspond to demand. One of the key findings of GEM 2002

is that in Thailand inadequate effort is devoted to the area of "Education and Training" particularly during primary and secondary education. Long-term sustainable development requires strong intellectual foundations. It is therefore critical for the government to foster entrepreneurship education and training beginning from primary and secondary school levels. There should be more collaboration among various institutions to exchange methods and experiences in developing formal education programs in entrepreneurship. The sharing of different perspectives would enable key stakeholders in the education process to learn from each other on how to direct educational initiatives aimed at raising the levels of entrepreneurship. The role of government policy initiatives should be to strengthen government programs that promote entrepreneurial culture.



Appendix 1:

Description of the Entrepreneurial Framework Conditions (EFCs)

- 1) **Financial Support** refers to the financial resources available for entrepreneurs. Also taken into account is the banking system, for example, equity and debt funding and venture capital that could be allocated to provide financial support to new and growing firms.
- 2) **Government Policies** refer to legislation implemented by government policies such as taxes and tariffs included here are questions about the consistent application of taxes and tariffs to new and growing firms as well as existing companies.
- 3) **Government Programs** relate to the presence of programs established by the government and intended to support certain strategic industries and to encourage investment in new and growing firms.
- 4) **Education and Training** concerns government driven initiatives focused towards education and training to build competencies for entrepreneurs.
- 5) **Research and Development Transfer** refers to the extent to which knowledge or technology created by national research centers or private organizations has been transferred to new and growing firms.
- 6) **Commercial and Professional Infrastructure** is the existence of professional services such as consultants, accountants, legal and other services that can support the emergence of new and growing firms.
- 7) **Internal Market Openness** involves the existence and level of any entry barriers for new and growing firms attempting to establish their businesses.
- 8) **Physical Infrastructure** refers to the extent of access of physical infrastructures such as transportation, basic utilities, communications and the Internet as well as the cost of accessing these infrastructures.
- 9) **Cultural and Social Norms** refer to the public perception towards national culture and social norms which encourage or discourage the establishment of new and growing firms.

Appendix 2:

Organizations Who Provided Country Experts in GEM 2002

| Framework Conditions | Organization |
|--|---|
| Financial Support | Small Industry Finance Corporation Siam Commercial Bank American Express (Thailand) Co., Ltd. Dharmmniti and Truth Limited Standard Chartered Bank |
| Government Policies | The Office of the Board of Investment (BOI) The Office of the National Economic and Social Development Board (NESDB) Department of Industrial Promotion |
| Government Programs | Innovation Development Fund The Small Industry Finance Corporation The Department of Skills Development The Institute of SME Development |
| Education and training | Thailand Productivity Center Mahidol Management Education Center Sycamore Management Consultants Management Psychology (1989) Co., Ltd. Strategic Momentum in Knowledge |
| Research and Development (R&D) Transfer | Thailand Science Park Software Park Thailand Institute of Scientific and Technological Research (TISTR) |
| Commercial and professional infrastructure | Food Market Exchange.com Hewlett-Compaq Soft IT Co., Ltd. Kay Lines Limited IBM (Thailand) Ltd. |
| Internal Market Openness | Thailand Development Research Institute (TDRI) Department of Labor Protection and Welfare Thai Gift Association The Thai Chamber of Commerce |
| Physical Infrastructure | Telephone Authority of Thailand Metropolitan Waterworks Authority PTT Exploration and Production Public Company Limited |
| Cultural and Social Norms | The Foundation for International HR Development Department of Community Development The Office of the National Culture Commission Dhamathani Company Limited |

Profile of the College of Management Mahidol University (CMMU)

Mahidol University, one of the most prestigious universities in Thailand, has long been recognized internationally for its outstanding achievements in teaching, research and professional services. During the past two decades, Mahidol staff members and alumni have received prestigious awards including four Magsaysay Awards, eight Outstanding Scientist Awards, 12 Outstanding Invention Awards, and 18 Outstanding Research Awards from the National Research Council of Thailand.

Although traditionally known for its accomplishments in medicine and science, Mahidol University has become a comprehensive university covering a wide range of academic fields. These include the humanities, social sciences, engineering, and administration. With over 18,000 students, Mahidol University presently consists of 14 faculties, five research institutes, five colleges, four scientific centers and three teaching hospitals. The academic staff has over 2,500 lecturers and researchers.

The College of Management is a self-financing unit of Mahidol University. The College was established in 1997 as an innovative venture in higher education. The founders sought to create a model of graduate management education in Thailand that meets international standards of excellence while focusing on the needs of Thailand.

The College has five campuses in four provinces. Apart from two campuses in Bangkok, there is one campus each in Nakorn Sawan, Ayudhaya, and Kanchanaburi. In total the College has 1,300 students at both undergraduate and graduate levels. The College has developed a number of dual degree programs, student and faculty exchanges, and special academic programs with universities in the United States, Sweden, Belgium and Australia.

The College has several objectives consistent with the overall missions of Mahidol University, namely:



- To provide students with a management education that will give them a competitive edge in the labor marketplace.
- To prepare graduates for a major international management role.
- To develop in its students an ethical awareness and sense of professionalism.
- To prepare students with skills and motivation for life-long learning.
- To prepare students to work effectively as decision-makers and problem-solvers in teams and in multi-cultural work environments.
- To generate research that contributes to the successful development of business and society in Thailand.

Our faculty members come from local and international business organizations as well as universities. We emphasize knowledge generation by research and the application of knowledge through simulations, case studies, and problem-based learning. Using these approaches, students can develop their

analytical skills with practical examples. As part of their graduation requirement, students complete a capstone project. These provide further opportunities for students to learn how to apply knowledge gained in the program to real situations.

Mahidol University has long been a pioneer in the delivery of English language programs of higher education in Thailand. We are committed to helping students develop their English language skills during their study in the international program. At entry, students receive an in-depth assessment of their English skills and a plan for development. Students' progress in English is monitored throughout their studies.

The College has earned a reputation for its innovative use of information systems in the management of our own educational programs. We also lead the way in Thailand in using IT and multimedia for teaching and learning.



All classrooms are equipped with multi-media equipment and the College maintains three state-of-the-art instructional computer labs.

The College is committed to developing specialized and general knowledge in its Master Degree programs. We offer specializations oriented towards the cutting-edge uses of information technology to manage modern organizations.

The College offers programs on a full-time and a part-time basis and at a variety of study times. The Master's programs consist of five terms, each term is of approximately 14 weeks duration. The College curriculum drives forward the worldwide emphasis on student-centered learning to ensure that students receive personal attention and feedback needed to learn effectively.

The College provides innovative graduate programs in management, as well as engaging in non-degree functions focusing on management training, research and

development. In addition to General Management, the College offers graduate training in key areas critical to Thailand's continuing development: Entrepreneurship Management, E-Commerce Management, Innovation in Management, Human Resources Management, Public Sector Management and Education Management.

Among these specializations, Entrepreneurship Management has gained its reputation as well as public interest, as evidenced by a continued yearly increase in number of students and graduates from this specialization. CMMU is the country's first higher educational institution that offers a Master Degree program specifically in entrepreneurship management. The College's involvement in this global research project of "Global Entrepreneurship Monitor" in 2002 therefore reinforces our interest in the knowledge of these economic-driven activities, with the hope of generating the information and knowledge to further benefit Thailand.





The College of Management, Mahidol University

Tower II West, SCB Park Plaza, Bangkok 10900

Tel: (66) 02-937-5656 Fax: (66) 02-937-5661

info@cmmu.net www.cmmu.net