From:

Creative Entrepreneurship in Asia

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Report of the Study Meeting on Creative Entrepreneurship held in Taipei, Republic of China, 18–21 May 2004

Edited by Prof. Tan Wee Liang



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Tel: (81-3) 5226 3920 • Fax: (81-3) 5226 3950

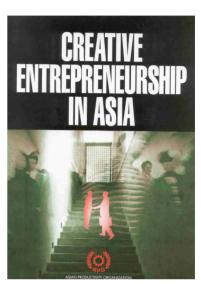
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ASIAN PRODUCTIVITY ORGANIZATION

Objective

The Asian Productivity Organization (APO) is an inter-governmental regional organization established by Convention in 1961 to increase productivity in the countries of Asia and the Pacific through mutual cooperation.

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APO membership is open to all Asian and Pacific Governments that are members of the Economic and Social Commission for Asia and the Pacific (ESCAP) of the United Nations. Governments outside Asia and the Pacific may become Associate Members.

APO member countries are: Bangladesh, Republic of China, Fiji, Hong Kong, India, Indonesia, Islamic Republic of Iran, Japan, Republic of Korea, Malaysia, Mongolia, Nepal, Pakistan, the Philippines, Singapore, Sri Lanka, Thailand and the Socialist Republic of Vietnam.

Organization

The supreme organ of the APO is the Governing Body. It comprises one Director for each member country designated by their respective governments. The Governing Body decides on the policies and strategies of APO programs, and approves its budgets, finances, and matters relating to membership.

The Secretariat, based in Tokyo, comprises the Secretary-General and Secretariat staff who execute the annual programs approved by the Governing Body. It has established operational networking with the designated National Productivity Organizations (NPOs) which act as national change agents for productivity promotion and as implementing agencies for APO programs in member countries. It also has close working relationships with other international organizations.

Roles

The APO serves as think tank, catalyst, regional advisor, institution builder and clearing house for productivity information to member countries. It assists member countries through human resource development, technical expert assistance and dissemination of knowledge and know-how on productivity.

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APO's programs cover the industry, service and agriculture sectors, with special focus on socio-economic development, small industry development, human resources management, productivity measurement and analysis, quality management, production and technology management, information technology, development of NPOs, green productivity, integrated local community development, agribusiness, agricultural development and policies, resources and technology, and agricultural marketing and institutions.

Its activities include basic research studies, surveys, symposia, study meetings, training courses, seminars, fellowships, technical expert services, study missions, publications, and audio-visual training materials.

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FOREWORD

The APO co-organized the Study Meeting on Creative Entrepreneurship in Taipei, ROC, 18–21 May 2004, with the China Productivity Center. Since its inception in 1961, the APO has consistently placed great importance on the productivity and quality improvement programs and activities of its member countries. Small and medium enterprise (SME) development constitutes one of the APO's thrust areas, and one key aspect of SME development is the fostering of entrepreneurs.

The study meeting, with the theme "Creative Entrepreneurship" was a timely event. Entrepreneurs often create significant breakthroughs and bold innovations in all fields of business. Entrepreneurial organizations similarly create new value and contribute to the economic growth of nations. The study meeting offered a valuable opportunity to examine not only creative entrepreneurship in SMEs but also in large corporations and how to foster creative entrepreneurs in the business sector.

The event brought together a panel of distinguished speakers, both from the ROC and overseas, to cover a broad range of issues ranging from the key success factors for entrepreneurial creativity in firms to implementing creative entrepreneurship in established firms, incubation of innovative enterprises, and new product development, which is an important aspect of value creation. The panel was chaired by Professor Tan Wee Liang, Singapore Management University, to discuss the following themes at the study meeting:

- Relevance of creative entrepreneurship for business growth and economic prosperity
- Critical examination of success factors for entrepreneurs
- Role of stakeholders, especially the government or NPOs, in promoting entrepreneurship
- Measures available to access entrepreneurial activities in an economy and their economic impact
- Development of enterprise "ecosystems"

This volume is a compilation of the papers and views presented at the study meeting. The APO greatly appreciates the efforts of Professor Tan in editing this volume. We hope that the contents will provide information on policies, best practices, and current developments that will be of use to policymakers, entrepreneurs, and enterprises engaged in fostering creative entrepreneurship.

Shigeo Takenaka Secretary-General

Tokyo December 2005

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BACKGROUND

Entrepreneurship is the driving force bringing innovations to the marketplace and establishing a community of high-growth firms. A creative entrepreneurial sector or community within an economy can contribute significantly to its prosperity. With change as the constant in today's globalized world, entrepreneurs constantly seize any arising opportunities to create new wealth. Peter Drucker in his book *Innovation and Entrepreneurship* noted that: "Entrepreneurs see change as the norm and as healthy. He or she always searches for change, responds to it, and exploits it as an opportunity."

Embracing creativity and innovation, an entrepreneur's products or services can bring about business growth, productivity improvement, job and wealth creation, an enhanced image for the economy, and ultimately a better quality of life for all. Policy makers have recognized that creative entrepreneurship needs to be encouraged through appropriate policies that foster entrepreneurship, innovation, and technological development. Some countries have introduced science parks in the hope that the provision of infrastructure will spark the development of high-tech ventures leading onto new innovations and inventions which can become global products and services.

Within enterprises, there is a need for creative entrepreneurship. Some enlightened corporations have fostered creative entrepreneurship within their organizations by providing opportunities for innovation, intraorganization venture financing, and ownership of employee-initiated projects. More needs to be done in this area to motivate the involvement of incumbents in a corporation through tangible and intangible means. This study meeting sought to promote the exchange of knowledge of, experience in, and approaches to creative entrepreneurship and creativity and innovation as a strategy for business excellence and growth in APO member countries.

Sixteen participants from the 12 member countries India, Indonesia, Islamic Republic of Iran, the Republic of Korea, Malaysia, Mongolia, Nepal, Philippines, Singapore, Sri Lanka, Thailand, and Vietnam contributed to the deliberations of the meeting. Three APO resource persons from Malaysia, the Republic of Korea, and Singapore provided resource inputs in addition to two local resource persons. To supplement the learning with practical examples, a field visit was organized to the National Taiwan University Innovation Incubation Centre (NTUIIC), where two of its successful tenants, Universal Vision Biotechnology and Genozyme Biotech, were introduced to the participants.

PROCEEDING OF THE STUDY MEETING

What is Creative Entrepreneurship?

Professor W.L. Tan of Singapore Management University introduced the meeting to the coverage of the study meeting; namely:

- a. Spheres of creative entrepreneurship:
 - Who—new ventures, serial entrepreneurs, existing ventures (by themselves), existing ventures (together with others), regions, and networks.
 - What—new products/services based on innovations or technology, new markets, new processes, or new business models.

b. Challenges hindering the growth of creative entrepreneurship and how enterprises overcame them on their own or with assistance from the private sector and/or government.

The main themes to be covered were:

- Creative entrepreneurs
- Public policies driving creative entrepreneurship
- International creative entrepreneurs
- Technology and innovation
- Corporate entrepreneurship

Corporate Entrepreneurship

Professor Tan highlighted the potential that most enterprises neglect when they consider ways to be creative and entrepreneurial, is that, they fail to engage the creativity of their workforce. Corporate entrepreneurship spans a continuum of possibilities, beginning with an R&D department, to involving only middle managers, to permeating the whole organization.

Whatever the level or extent of the organization one wishes to engage in corporate entrepreneurship, there is a need to change organizational factors. Certain factors have been identified by researchers as important for fostering corporate entrepreneurship. The most important are the attitudes of the intended employees. The proper attitudes toward corporate entrepreneurship will lead to objectives and subsequent actions. Other factors include organizational culture, practices, flexibility, and sponsorship of employee innovation projects. An organizational culture that results in creative entrepreneurship allows employees to remain with their projects (continuity), encourages communication across areas and levels of the firm, creates cross-functional teams, encourages decision making by all even at the lowest level of the organization, and permits project teams multiple options so that they are not confined to procurement from limited sources. It does not encourage risk aversion or conformity. Such organizations train and develop their workforces, encourage creative decision making, do not frown upon projects with small beginnings, and spread any innovation throughout the whole organization. There is flexibility in the operation of the teams and the organization sponsors projects. In his study of Singapore middle managers, Professor Tan found that organizational culture, flexibility, and sponsorship influenced middle managers to become internal corporate entrepreneurs (intrapreneurs).

Product Innovation and Business Model (the Case of OKWAP Phone)

Mr. Jackson Chang, Chairman of Inventec Appliances Corporation, expanded on Professor Tan's presentation by showing how his company was able to involve its project teams in developing Taiwan's most popular locally produced mobile telephones, with the brand name of OKWAP. The phones have the same features as the internationally known brands Samsung, Nokia, and Sony Ericsson.

He introduced the participants to the various considerations of an effective product innovation process and business model: strategy (positioning, entry segment, competing edge), execution (resources, process, and integration), and deployment (marketing and promotion, community service, and sustaining competitiveness). Taking these into consideration, Inventec developed its unique mobile phones with local content functions such as the Taiwan personal digital assistant and dictionary; culture-related content such as

Web site support for free downloads; and access to local customized services and features such as promotional events, community and special interest groups.

Entrepreneurship Development in Taiwan

Professor C.T. Wen explained how he developed a program at National Cheng-chi University to develop creative entrepreneurs and entrepreneurial teams. He made a study of overseas programs including the MIT e-Lab, University of Southern California Student Incubator Hatchery, University of Washington New Venture Creation Lab, Osaka Venture Factory, and Innocamp of Norway. He concluded that to foster creative entrepreneurship in the university environment, there is a need to create activities and an environment within which the students can develop ideas, work through those ideas, and involve university programs and resources to refine them, and interact with the mentors provided by the university to result in new ventures (Figure 1).

At his university, he has encouraged entrepreneurship through the mentoring of business plan teams for the Taiwan Innovation Competition that is based on the MIT 50k Business Plan competition. He shared his conviction that for creative entrepreneurship to occur, a suitable milieu must be created wherein individuals can choose the combinations that work for them. Business plan competitions by themselves do not lead to entrepreneurship but often only create gamesmanship. He noted that there has been a decline in student interest in such competitions.

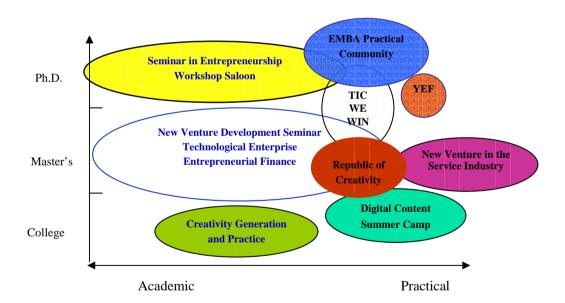


Figure 1: Facilitating Creative Entrepreneurship at National Cheng-chi University

Strategy for Creating an Entrepreneurial Incubator: The National Taiwan University Case

Taiwan is a showcase for successful ecosystems for creative entrepreneurship in its incubators. There has been an increase in the number of incubators established after the international success of firms incubated at the Hsinchu Industrial Park, in particular at the Industrial Technology Research Institute (ITRI). ITRI is a primary R&D center for

industry in the ROC. In 1973, when ITRI was founded, there was very little high-tech industry in the country. Today, the ROC is a world-class player in semiconductors, personal computers, and many other high-tech sectors. ITRI has played a significant role in this transformation.

Professor K.C. Fan outlined the way in which National Taiwan University (NTU) created its entrepreneurial incubator center, one of many being developed by universities and funded by the government. The entrepreneurial incubator center enables professors' involvement in consultancy, students' involvement in internships, and the university's involvement in setting up laboratories, facility utilization, and entrepreneurial programs. The additional expected benefits include commercialization of technology developed on campus, the formation of academic team groups as new start-up teams, and linkages between the university and industry. However, the center will face challenges, as Professor Fan noted that other university incubators have not been financially self-sustaining if financial support from the university or government is cut. Further, their contributions to universities are still not satisfactory in terms of equity returns. Perhaps the way forward is to permit universities to attract private investment in the incubators, as is being tried in China and in Malaysia.

NTU Incubation Center Site Visit

The participants learned more about product innovation through a site visit to the NTU's entrepreneurial incubator center. Professors K.C. Fan and Chau-Chen Yang introduced the NTUIIC to the participants. As an incubator, the NTUIIC created an environment for "start-ups" and "innovation" with the objectives of lowering the risk of start-ups, improving the R&D capability of enterprises, assisting traditional enterprises to seek advances in technology, and to extend R&D conducted at the NTU until the final stage of commercialization.

The incubator is structured as a company that is the interface between the tenants and the other stakeholders (internal and external). It has had modest success and has been able to attract university alumni and notable businesspeople to act as mentors. Since its formation in 2002, it has "graduated" 28 small and medium enterprises (SMEs) representing 14 in information technology, 11 in engineering, and three in the field of biotechnology. It is presently incubating 19 firms.

Two of its tenants, Universal Vision Biotechnology and Genozyme Biotech, were introduced to the participants. Universal Vision Biotechnology is the first management consultation company in the field of professional ophthalmic treatment and the first to specialize in ophthalmic biotechnology in the Taiwan. It is in the incubator because one of its projects is R&D involving the NTU faculty to improve vision biotechnology techniques using excimer lasers, the vision treatment commonly associated with high myopia called LASIK. The other tenant, Genozyme Biotech, focuses on biotechnology applications for the livestock industry and produces enzymes for feed improvement and tests for the detection of toxins in feed which ranchers can use to improve livestock yields.

The Interface between Entrepreneurship, Creativity, and Innovation: The Malaysian Experience

Dato' Mustafa Mansur drew from the Malaysian experience to demonstrate how Malaysian entrepreneurs and enterprises have continued to find niches and expand their markets. He presented two case studies: Royal Selangor International and Air Asia.

Royal Selangor International is a world-renowned producer of pewterware and high-end gift items, including jewellery. Although it has its share of competitors who have

tried to mimic its products, Royal Selangor has employed an innovative marketing strategy involving creatively displayed showrooms, on-line shopping opportunities since 1996, and new design collections. It has found innovation to be critical because its products have short life cycles, and its designs can be easily copied by competitors and are nonessential luxury items.

AirAsia is Asia's first low-fare, no-frills airline to introduce ticketless travel. It operates frequent flights and plies routes not covered by mainline operators, saving costs through the use of modern technologies to manage its operations like on-line booking and payment facilities, a multilingual Web site offering real-time holiday packages, mobile phone short message booking and checking of flight schedules, and a direct "B2B engine" with agents and virtual credit cards. The interesting element is that the creative team did not come from the airline industry but from the music industry. They infused techniques used in the promotion of services and advertisements in the music industry in the new airline.

Creativity and Entrepreneurship

Dr. M.K. Kim of Soongsil University focused on the theory of creativity and how it interfaces with entrepreneurship. In particular, he stressed that creativity is a collective capability that the whole organization can embrace. There are steps that organizations need to take: they should develop skills and capabilities that make it unique both in the present and in the future. The uniqueness is collective in nature, founded on the culture of the organization, in particular the way it operates and communicates as a team, rather than the creative skills of a few elite employees. The creative capability of the organization is shaped by the way the entire staff works and feels about the organization. Therefore creativity often involves organizational development processes rather than recruitment and career management tasks.

SUMMARY RECOMMENDATIONS

The participants devoted time in syndicate groups to a discussion of creative entrepreneurship. They agreed that various definitions existed but adopted Professor Tan's proposed definition of "any new business activity involving creativity and innovation." The definition is important as the type of enterprises and mindsets that the countries, companies, and individuals seek to establish are identified based on the definition.

Through the discussions, the participants concluded that to encourage creative entrepreneurship, policy makers need to encourage the various stakeholders in society to enhance the adoption of technology and encourage innovation within enterprises. These stakeholders include governments, trade associations, and tertiary educational institutions.

The Role of Governments, Trade Associations, and Other Stakeholders

It is important for governments, trade associations, and other stakeholders to assist entrepreneurs in sharpening their skills in management and leadership qualities and to provide the necessary tools to identify opportunities. They often provide the external impetus and staff experience that lead to productive changes in management processes facilitating the creation of new products and services. Their suggested main roles are:

<u>Government</u>: foster the environment conducive to creativity and the adoption of technology.

<u>Trade/industrial bodies and societies</u>: act as catalysts for business growth, facilitators of governmental policies, and channels for businesses information. <u>Institutions of higher learning</u>: provide specialists and researchers, platforms for technology development, and tools for management and serve as focal points for economic literacy.

They can provide platforms for entrepreneurs to move forward in the right environment to create, innovate, and adopt technologies to succeed or to survive. There are six elements in successful and positive environments for creative entrepreneurship: market support, intelligence support, financial support, legislative support, technology support, and infrastructure support. These elements of the environment should be freely accessible to entrepreneurs. They should work hand-in-hand to promote the efficiency and productivity of enterprises leading to a synergistic outcome.

Pertinent to creative entrepreneurship is the role of these stakeholders in the promotion of innovation and technology adoption. The participants recommended the following:

Networking

Networks should be encouraged as they are means for the exchange of ideas. Alumni networks, trade associations, industrial bodies, and informal business contacts could provide a good platform for like-minded and complementary business people to interact, exchange best practices, and possibly ignite technology transfers among enterprises. Networks can facilitate the rapid dissemination of knowledge and know-how. In addition, trade or industrial bodies and societies can be screening agents for promising business matchmaking opportunities, thus enhancing the ability of businesses to collaborate.

Government Policies

Governments could assist in providing conducive environments for the creation of innovation and the adoption of technology. In many countries, governments could provide technology upgrading incentive schemes and financing schemes to ease cash flows or increase capital for R&D activities within enterprises. Governments may pass laws or guidelines to protect SMEs from intellectual property rights abuses. This will encourage small businesses to innovate and reinvent. The main objective of government policies on these issues is a substantial net increase in the level of high-quality R&D in enterprises and to ensure an integrated and unified approach to research-related activities. These should cover industrial R&D, process development and innovation, and technology acquisition.

Communication

Organizations should be encouraged to promote open channels of communication among all levels of management so that no ideas are brushed aside. Stakeholders could play a significant role in the provision of information and intelligence to enterprises. For example, industrial associations could provide regular updates on changes in government policies and new incentive schemes to enterprises. This would make it easier for enterprise decision makers to utilize government incentive schemes.

Incubators and Mentors

Incubators run by universities and research groups could assist businesses, especially SMEs, to grow in a conducive environment. Researchers, specialists, and consultants should be available to the enterprises being incubated. The credibility of the "host" incubator could lend weight to the tenants, thus attracting better funding from the government or business "angels." Access to R&D facilities is the main advantage for promising SMEs to be based in incubators. Mentors can lend their experience to the incubating enterprises and guide them through the potentially disruptive innovation process.

Education

Educational institutions could provide the technical know-how and the innovation process management skills to senior managers in corporations. Studies have also shown that general education can enhance innovation. The adoption of technologies is more rapid in countries with higher literacy rates. Thus education and academic institutions can play a significant role in the adoption of technology and innovation creation in an economy.

Business plan competitions, which incorporate technology adoption and innovation, are a good opportunity to start young budding entrepreneurs thinking about innovation at an early age. In some countries, business plan competitions have already been established.

APO Entrepreneur of the Year Award

To encourage innovation and to measure the success of entrepreneurship, the participants suggested the introduction of the APO Entrepreneur of the Year Award (EYA). The award could provide a consistent platform to measure successful entrepreneurship. One main criterion for the APO EYA should be the ways entrepreneurs encourage the use of technology and the promotion of innovation retain enterprises. This may be the hallmark of a successful entrepreneur.

CONCLUSION

Overall, the study meeting met its intended objectives. There was lively discussion of the issues faced by member countries seeking to develop creative entrepreneurship. The mix of policy makers, entrepreneurs, and representatives from trade and professional associations facilitated the discussions. The country papers and case studies revealed the myriad forms that creative entrepreneurship can take in an economy. Positive feedback was obtained from the participants, and some of the entrepreneurs found common interest in business ventures and may pursue collaborative alliances.

AN INTERFACE BETWEEN ENTREPRENEURSHIP, CREATIVITY AND INNOVATION: THE MALAYSIAN EXPERIENCE

Dato' Mustafa bin Mansur Federation of Malaysian Manufacturers

Technological know-how and the ability to manage intellectual assets are critical considerations in every entrepreneur's bid to gain competitive edge in today's highly globalize environment. The stakes are continually raised, driven by the speed of technology advancement and comparatively lower cost of manpower in emerging economies.

Standardization or commonization of parts and components has allowed new upstarts and seasoned producers in lower cost countries to venture into the production of state-of-the-art consumer electronics products, ahead of long established market leaders. For example, China's Xoceco was mass producing flat screen televisions for their own Chinese market when electronic giants like Sony were only beginning to roll out in volume. Xoceco used inexpensive standardized parts from the Republic of Korea and the US. While it took three years for DVD players to go from US\$1,000 to less than US\$300, the same price drop took only two years for DVD recorders. The same domestic price decrease is happening to computers and cellphones. Established manufacturers could no longer assume that it would take years before rivals could match their products. The lead-time to exploit first mover advantage in the market has become shorter.

Being skillful, competent and cost competitive is also no longer sufficient when emerging powerhouses such as China are jumpstarting their learning curves by enforcing technology transfer. In addition to securing competitive prices, China is pushing for highend designs and technologies to be transferred to her entrepreneurs as conditions for awarding state contracts worth several billions dollars. For example, General Electric Co. (GE) and its competitors were required to form joint ventures with state-owned power companies. They had to transfer to their new partners, technology and advanced manufacturing guidelines for one of its turbines which cost GE more than US\$500 million to develop. These demands are similar to those made by Japan in the 60s and 70s. Japan subsequently outpaced US in the electronics and other industries.²

Long established market leaders respond to the challenging market environment by developing more complex designs that can not be easily duplicated; keeping their intellectual creativity as trade secrets instead of applying for patents, or developing market strategies to sell the entire package of parts and components to rivals to achieve the same lucrative role as Microsoft or Intel in the PC industry.

Other examples include the following: Philips supplies electronic circuitry for nearly one third of DVD recorder models sold worldwide; Sony is the world's biggest supplier of a key microchip at the heart of most digital cameras; and Motorola sold its most advanced third-generation cellphone to major rival Siemens AG of Germany. Sharp Corp. is withholding key information such as the type of equipment used, ordering parts

¹ "Upstarts are Crafting Components of Change in Consumer Electronics", Evan Ramstad and Phred Dvorak, Asian Wall Street Journal, December 16, 2003.

² "China Makes Power Play to Score Technology from Foreign Partners", Kathryn Kranhold, Asian Wall Street Journal, February 26, 2004.

from different makers and has even stopped patenting some factory processes because "Patents can be hints", said Zempei Tani, Vice President, Sharp.³

It is clear from the above few examples that other than focusing on costs, product and process quality, speed and efficiency, businesses must also strive for new sources of innovation and creativity.⁴ Businesses have to develop technology rapidly and to continuously introduce new and better designs and business strategies to stay ahead of the competition. As Jodie Ray, CIO of Texas Instruments cited, "It used to be that the efficiency of transactions was all that mattered. Now, the capability to change quickly is more precious than money – it's more important than having the lowest transaction cost." Hence, the illiterate of the 21st century would not be those who could not read and write. They would be those who could not learn, unlearn and relearn.

ENTREPENEURSHIP, INNOVATION AND CREATIVITY

According to Peter F. Drucker, "a commitment to the systematic search for imaginative and useful ideas is what successful entrepreneurs share...entrepreneurship can occur in a business of any size or age because...it has to do with...innovation, the disciplined effort to improve a business' potential...from a conscious, purposeful search for opportunities — within the company, industry and larger social and intellectual environment...from pulling together different strands of knowledge, recognizing an underlying theme in public perception, or extracting new insights from failure. The key is to know where to look⁵."

Mr. Drucker went on to identify seven key areas in which entrepreneurs should look for innovation opportunities namely:

- a. **Unexpected occurrences**, including failure; for example Ford learnt from the Edsel failure that the automotive market was segmented by lifestyle instead of income group and promptly produced the Mustang;
- b. **Incongruities** were used to explain Alcon Laboratories' monopoly for its enzyme product to dissolve the ligament in cataract removal. The enzyme was readily accepted by eye surgeons because the product resolved the problem of having to cut off the ligament, a step that eye surgeons were not comfortable in performing;
- c. **Process needs** for example linotype made it easy to produce newspapers quickly and advertising allowed news to be distributed practically free of charge;
- d. **Industry and market changes -** Drucker attributed the success of brokerage firm Donaldson, Lufkin & Jenrette to its founders' recognizing that the market for institutional investors would predominate in future;

³ "Upstarts are Crafting Components of Change in Consumer Electronics", Evan Ramstad and Phred Dvorak, Asian Wall Street Journal. December 16, 2003.

⁴ "The Future of Competition – Co-Creating Unique Value with Customers", C. K. Prahalad & Venkatram Ramaswamy, Harvard Business School Press, 2004.

⁵ "The Discipline of Innovation", Peter F. Drucker, Harvard Business Review, 2000.

- e. **Demographic changes**, such as when the Japanese were quick to recognize the baby bust and education explosion around the 1970s and used the change to move strongly ahead into robotics;
- f. **Changes in perception**, which could dramatically bring about innovations as with the Americans' obsession with health and keeping fit. Their obsession had launched magazines, health foods and exercise classes;
- g. **New knowledge** that could require long lead times and convergence of other kinds of technologies, such as an operational digital computer, which did not materialize until 1946 despite knowledge about it being available by 1918.

It is noted that a combination of these areas could account for the successful and highly profitable innovations for companies like Sony. Sony had introduced many bold new products such as the Sony Walkman that encouraged the growth of the MTV and innovation, development invention of the compact-disc player; the Sony Play Station, which brought the company early leadership in the new high-end computer game business; the Sony Everquest, which takes the lead in the on-line computer games sector, selling low–margin hardware as a platform for high-margin software.

We see the interplay of exploiting the incongruities and process needs of personal stereo, which was once considered bizarre, into a portable music device; industry and market changes in the high-end video game entertainment industry; and new knowledge in electronics had allowed Sony to be the only company in the world offering a broad gamut of consumer electronics. In other words, the interplay of entrepreneurship, creativity and innovation to allow Sony to not only create new and innovative products but also to set the standards in dozens of product lines.

MALAYSIAN CASE STUDIES

Based on the seven key areas for innovation opportunities pointed by Drucker, we are proud to note that Malaysia also has some good examples of companies, which have demonstrated the same interplay of entrepreneurship, creativity and innovation. For today's presentation, we will highlight two cases:

- a. **Royal Selangor International Sdn. Bhd.**, "Royal Selangor" the world renowned producer of pewterware and high-end giftware, including jewellery;
- b. **AirAsia Sdn Bhd**, Asia's first low-fare no-frills airline to introduce "ticketless" traveling.

Royal Selangor International Sdn. Bhd.

Royal Selangor⁷, was founded in 1885. Since then, the company has continuously introduced new innovations in design and product items in line with industry and market changes, process needs, and the development of new knowledge. Royal Selangor began crafting mainly incense burners and candle holders for the Oriental market during the 18th century before expanding their selection to tankards, ashtrays and tea services for British colonials. Since the 1970s, Royal Selangor has diversified into the design, manufacture

⁶ "Sony Needs Innovation More Than Efficiency", Skarzynski & Switzer, Asian Wall Street Journal, November 26, 2003.

 $^{^7}$ All information obtained from Royal Selangor International Sdn. Bhd.'s website – www.royalselangor.com.

and marketing of precious jewellery and 925 hallmarked sterling silver lines of business which are still in operation today.

Creativity and innovation in marketing is another strength of the Royal Selangor, which had introduced on-line shopping since 1996 – a time when many businesses in Malaysia were only beginning to learn about the worldwide web and e-mail. As an indication of the level of entrepreneurship demonstrated by Royal Selangor in its marketing strategy, only 70 FMM member companies had e-mail facilities in 1997 when FMM launched its website, FMM Net. These 70 companies represented less than 4% of FMM's total membership.

The innovative strength of Royal Selangor lies in the continual introduction of new designs in anticipation of market demands as demonstrated through the company's various collections – from working with the Victoria and Albert Museum of London in 1996 to create a tableware range inspired by 17th and 18th century pieces; to the launch of the *Lord of The Rings* collection to cater to the demands of fans of the epic movie trilogy.

Creativity and innovation coupled with quality and style are critical to the company because the products that they are dealing with have very short life cycles and the designs are easily copied by its competitors, even though the reproductions are not of the same high quality of craftsmanship or materials. In addition, the products are essentially luxury items, regarded as decorative than functional in many cases.

The experience and knowledge gained from working with pewter is expanded through diversification into jewellery and sterling silver items. Royal Selangor's acquisition of its silverware branch had included intellectual assets comprising an archive of over 35,000 drawings, patterns and moulds, and a long-established and prestigious brandname.

Royal Selangor is clearly a knowledge-driven company, where its entrepreneurial founder and successors have deeply entrenched innovation and quality craftsmanship in their operations together with the ability to accurately discern market needs and public perception. The company, though established in the 18th century, has succeeded in remaining relevant and retaining its standing as a market leader in this particular niche through constant innovation and lateral expansion of its core competency and adjacent⁸ strategies into jewellery making and silverware.

Airasia Sdn Bhd

AirAsia Sdn. Bhd.⁹, "AirAsia" established in 2001, could be considered as one of the dynamic new upstarts, which could compete with long established operators – even moving ahead in some areas especially in terms of innovative use of technologies. AirAsia was purchased for RM1 or US\$0.26 together with a US\$36 million debt from the original owners. Today, the airline is reportedly operating at a profit, with margins of 15% on the US\$36 million in revenue, generated within the first five months of 2004.

AirAsia provides a simple "no frills" service at fares that are generally significantly lower than the traditional full-service airlines. As a comparison, AirAsia charges US\$9 for a flight from Kuala Lumpur to Penang while main line operators' charge US\$45.

Modeled after successful operations of the United States' Southwest Airlines and Dublin-based Ryanair, the entrepreneurship of AirAsia lies in its bold venture to take on an ailing operation in a highly competitive and capital-intensive environment and turning it around in about two years. AirAsia's entrepreneurship also demonstrates the capability

⁸ "Beyond the Core: Expand Your Market Without Abandoning Your Roots", Chris Zook, Harvard Business Review.

⁹ Information obtained from AirAsia Sdn. Bhd.'s website – www.airasia.com.

to take the lead [and risks] to introduce "no frills" service to the Asian market and plying routes that the main airline operators were not covering and/or had perceived as not viable.

AirAsia's innovative entrepreneurship also extends to its use of modern technologies to manage operations and to be directly accessible by its customers. AirAsia, with its on-line booking and payment facilities, is Asia's first airline to record over RM130 million sales over the Internet alone. It is also the first airline in Malaysia to allow customers to pay for their telephone bookings using credit cards or cash at the designated banks. The ticketless service also lets customers bypass the hassle of collecting tickets.

In order to cater to the growing number of destinations covered, AirAsia is the first Asian airline to have a multilingual website with seven languages and an Internet-based real-time holiday package program – GO Holiday. In August 2003, AirAsia scored another first by being the first airline in the world to introduce Short Messaging Service (SMS) to customers to book seats, check flight schedules or obtain the latest updates on its promotions through their mobile phones. This innovative facility is clearly driven by the recognition of the process needs and market changes – centering on the observation that the ubiquitous handphone is an extension of nearly every individual, even among schoolchildren.

AirAsia has also extended its innovative information technology practice to its agents, who have access to an Internet-based real time inventory booking engine. AirAsia's agents make payment via a virtual AirAsia credit card. The convenience of booking and payment is further strengthened by the high frequency and wide coverage of flight service. The airline has a quick turnaround time of 25 minutes, which is said to be the fastest in the region. AirAsia is thus able to offer more flights to more areas, especially to the lesser plied routes.

AirAsia involves local celebrities in its advertising to achieve high impact among its target segment, the younger set of customers. This strategy could also be attributed to the firm's recognition of market and demographic changes in air travel in Asia, where traveling among the younger generation and budget travels are becoming more popular.

KEY POINTS TO NOTE FROM MALAYSIAN EXPERIENCE

Having noted the above cases of Malaysian companies that have displayed entrepreneurship, creativity and innovation in their operations, it remains for us to point out a few pertinent key success factors:

- a. These companies are considered pioneers in their respective fields of business. However, these companies have not been complacent and demonstrate professional will in leadership. Professional will¹⁰ refer to the will to achieve the following:
 - Creating superb results
 - Demonstrating unwavering resolve for the best long term results
 - Setting and keeping standards for enduring great companies
 - Looking in the mirror to apportion responsibility

¹⁰ "Putting People First & Winning the War for Talent", Manny Lopez, Amrop Hever Taiwan at BusinessWeek – DNM Strategies Event, 2002.

- b. These companies are also prepared to invest in new technologies and skills, expand their skill sets and competencies, innovate, and to design better, and wider choices for their customers;
- c. These companies are strong brand owners in direct and close contact with their customers. The leadership instills the culture and discipline for strategy execution, including hands-on management¹¹; and
- d. These entrepreneurs have capitalized on their core competency and prior network skills and strengths their new ventures. They employ a more dynamic management approach that constantly reinvents itself.

Taking cognizance of the above, we could conclude that the interplay of entrepreneurship, creativity and innovation must be supported by leadership having the following qualities:

- a. Having the professional will to succeed;
- b. Being prepared to continuously invest in new technologies;
- c. Learning, unlearning and relearning skills sets to enhance competency; and
- d. Direct contact with the market, transacting business under their own brandname and through their own showrooms/booking facilities.

CHANGE IN ENTREPRENEURIAL DEVELOPMENT IN MALAYSIA

Supported by constant innovation and creativity these companies have today become major benchmarks for entrepreneurial development. Royal Selangor's expertise in marketing and brand name development is constantly tapped upon through their participation in various Government committees. Recently, the company was appointed the chairperson of Malaysia's Third Industrial Master Plan's Technical Resource Group on Marketing and Branding. AirAsia is also participating in the formulation of the same plan on the logistics front.

More importantly, these companies signify the increasing change in entrepreneurial development from being original equipment producers for large multinationals to becoming brand name owners. Spurred on by the "Malaysia Boleh" spirit, which has now been reinforced by our new Prime Minister's clarion call to achieve "Excellence, Glory and Distinction", there are already several Malaysian companies which are also developing the same brand of innovative entrepreneurship, particularly in the manufacturing sector.

The manufacturing sector in Malaysia will develop faster in these areas because the sector is very open and has been continually exposed to intense competition from new upstarts in low cost emerging countries and concurrently being pushed by their customers to carry out R&D. Brand ownership and brand consciousness is also strengthening as we see more homegrown brands being promoted – such as Supermax in the rubber gloves industry; Bonia in the leather goods sector; Silverstone, which is already well-established in the upmarket range of tyres; Globetronics in the electronics sector; and so forth. Clearly, Malaysia will have many more innovative entrepreneurs to show in the future.

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¹¹ "The Strategy Trap: Emphasizing Formulation, Ignoring Execution", Neoh K. C., CEO – Asia Pacific, Atos Origin at DNM-Business Week Strategies Event "The 12th Asia Leadership Forum", December 4, 2003.

IMPLEMENTING CREATIVE ENTREPRENEURSHIP IN CORPORATIONS

Prof. Tan Wee Liang
Singapore Management University
Republic of Singapore

EXECUTIVE SUMMARY

Creative entrepreneurship within organizations requires various factors to be in place, chief of which is the organizational setting. If there is to be creative entrepreneurship in corporations with middle managers and others striving to be innovative and creative, there must be the right organizational culture, communications and reward systems.

INTRODUCTION

Many market leaders in various industries today have come to the realization that in the current turbulent environment, success is not only derived through productivity and efficiency as understood in the traditional sense. In contrast, they require creative entrepreneurship. Creative entrepreneurship efforts in corporations have been called organizational entrepreneurship, corporate entrepreneurship and intrapreneurship. We shall refer to it as intrapreneurship. Intrapreneurship has its biggest impact on long-term organizational performance, specifically adaptiveness and survival (Gibson et al, 1985). Miller and Friesen (1982) find that both market turbulence and competitive intensity cause firms to be more entrepreneurial than their counterparts which face more benign environments. As market and technological turbulence increase, new market opportunities accumulate, giving rise to increases in intrapreneurship, at least in those firms with climate that fosters intrapreneurial activity.

The distinction between entrepreneurial firms (large, medium or small) and firms that have stagnated in their growth, is the element of creative entrepreneurship. In the case of small and medium-sized enterprises (SMEs), when owner-managers of firms are able to build entrepreneurial teams, infuse their organizations with the means and desire to be entrepreneurial, and put in place systems that facilitate creative entrepreneurship, the creative entrepreneurship initially embodied in the founder of the firm continues. Large corporations are keen to continue to be entrepreneurial. Researchers in creative entrepreneurship within organizations have been intrigued by the elements needed for intrapreneurship to take place. The basic premise of such elements is simple: many hands make light work. There are creative individuals in every organization whose energies have not been harnessed towards adding value in the organization's inventions, innovations and processes. Intrapreneurship, if implemented by the entrepreneurial firm, seeks to empower individuals within the corporation to function like entrepreneurs. Instead of a firm of employees, the intention is to create a community of entrepreneurs (Kao, 1997).

One does not need to go far to find examples of creative entrepreneurship in organizations. The classic example is one multinational corporation known by its acronym, 3M. Plenty of creativity in an informal working environment helps the "Post-It"

giant 3M to stand out in rigorous competition. "Anything that sticks or scraps, 3M makes," goes the saying. 3M started off making sandpaper and sticky tape, but because of its relentless innovativeness, it developed Post-it Notes, medical laser imager, Fibrlok fiber optics splices, Scotch-Brite Never-Rust-Wool soap pads, and even hydrofluoraether. The company stipulates that 30% of each year's sales must come from products less than four years old (3M, 2004a). McKnight's Principles form the basis for the corporate culture that encourages employee initiative, innovation and provides secure employment. He said:

"As our business grows, it becomes increasingly necessary to delegate responsibility and to encourage men and women to exercise their initiative. This requires considerable tolerance. Those men and women, to whom we delegate authority and responsibility, if they are good people, are going to want to do their jobs in their own way.

"Mistakes will be made. But if a person is essentially right, the mistakes he or she makes are not as serious in the long run as the mistakes management will make if it undertakes to tell those in authority exactly how they must do their jobs.

"Management that is destructively critical when mistakes are made kills initiative. And it's essential that we have many people with initiative if we are to continue to grow."

(McKnight Principles enunciated in 1948. Source: 3M (2004b)

One of 3M's corporate goals is the promotion of entrepreneurship and insistence upon freedom in the workplace to pursue innovative ideas. Its management believes that it is essential to provide an organizational structure and work climate which respects the dignity and worth of individuals, encourages initiative, challenges individual capacity, provides equal opportunity for development, and equitably rewards effort and contribution.

WHY INTRAPRENEURSHIP?

There are various reasons why companies adopt intrapreneurship. Firstly, there is a rapidly growing number of new and sophisticated competitors (Miller and Friesen, 1982). The specific job of entrepreneurship in the business enterprise is to make today's business capable of creating the future, and of re-inventing itself into a different business. Organizational entrepreneurship will enable today's already existing – and especially today's already successful – businesses to remain in existence and to remain successful in the future. Firms need to continue to innovate and change in order to avoid stagnation (Miller and Friesen, 1982). Secondly, it would prevent an exodus of some of the best and brightest people who are leaving corporations to become entrepreneurs. An intrapreneurial climate helps to reduce the turnover of innovative-minded employees disenchanted with bureaucratic organizations (Kanter, 1983; Pinchot, 1985). Lastly, a conducive environment allows the corporation to tap the innovative talents of its employees and managers (Kuratko and Hodgetts, 2000).

In addition to the preceding reasons, there are three more immediate benefits from intrapreneurship. Firstly, relationships with customers will be improved. Since customers are one of the most important sources of information, more attention is paid to their needs, concerns and ideas. The outcome of this is more satisfied customers and

repeated patronage. Secondly, the organization will be a better place in which to work. It will be more fun, more stimulating and more rewarding. This will help improve morale and the relationships between organizational members. Although the products and services of the organization are the primary focus of intrapreneurship, employees will also begin to pay more attention to the process of their work. Thirdly, organizational entrepreneurship can also help improve the relationship with outsiders, which will lead to a more socially responsible organization (Cornwall and Perlman, 1990).

At this juncture it must be highlighted that what this paper covers with respect to organizations could be extended to economies. Like an organization that needs to encourage and reward entrepreneurship, countries may need to do likewise to engender mindset changes among their populations. In the same way that corporations have to put into place available finance for corporate ventures, countries have to provide infrastructure and encourage a vibrant venture capital industry.

IMPLEMENTING INTRAPRENEURSHIP

At What Level

Assuming that the powers that be, the leaders of the firm are keen to implement intrapreneurship, there is a need to consider the levels within an organization that will be empowered to be entrepreneurs. If intrapreneurship is to be seen at all levels of the corporation, there are implications for approach to intrapreneurship has implications on the systems that need to be in place for empowering innovation at all levels. Pinchot (1997b) suggests that organizations must keep their systems open to all levels of innovation all the time: continual improvement, process breakthroughs, line extensions, new products and services, new ways of working together, new internal services and new organizational patterns. These systems are needed because changes in innovation is more than just ideas; in fact, the bottleneck for innovation is generally in the implementation (Pinchot, 1997a). The changes in organization systems will create the conditions for intrapreneurship.

Creating the Conditions for Intrapreneurship

Fuller (1995) identified the typical process of empowered innovation as encompassing the following steps:

- 1. Generation of a new idea
- 2. Discussion with a facilitator
- 3. Questions asked by the facilitator
- 4. Submission of an idea proposal to the facilitator
- 5. Review and comment by a group of consultants
- 6. Review of consultants' contributions
- 7. Development of implementation plan
- 8. Search for sponsorship

The innovative process can only take place smoothly if it is well supported by conducive organizational climate that encourages intrapreneurship. Research has shown that there are five groups of conditions that lead to the internal stakeholders in an organization - managers and employees – to acting as corporate entrepreneurs. Hornsby, Kuratko and Zahra (2002) found that such an environment would:

- Provide management support
- Allow work discretion
- Institutionalize rewards
- Make time available for intrapreneurial pursuits
- Principles to encourage activities outside the organization boundaries and thus may be risky.

We elaborate on each of these conditions in the subsequent sections.

Management Support

Providing management support may entail the corporation making available funding resources or hiring the right people and establishing cross-functional teams that cut across departments in their organizational structures. An instance where intrapreneurship took place can be seen in the example of Trek 2000 [Vignette 1]. In this instance Henn Tan knew he needed new skills for an innovation. He hired the key team members and gave them the required resources. He became the champion and mentor. It was necessary for resources to be drawn from the various parts of the organization for the team.

Allowing Work Discretion

This has been lauded by the popular accounts of the practice in companies like 3M and Hewlett Packard. Not many companies expressly provide for discretionary but the culture is unwritten within each firm. This corporate culture would have norms that favor innovation and intrapreneurship, and an understanding that employees have the opportunity and decision-making on the part of employees.

Rewards

If one is expecting all the employees to do more than their job descriptions, it is therefore not surprising that there must be reward systems to address their efforts. Tangible rewards in the form of bonuses, incentives or share options are important but need to be augmented with intangible motivation. Intangible motivation could be by way of recognition within the organization. Recognition could project these individuals as role models for the others and helps to build an internal organization culture that is proenterprise and pro-new ventures. The critical element here is for the organization to be consistent in their words and actions. A word of caution is needed, the rewards and recognition must not be perceived as a system to get them to work harder; if not, the intended objective would thus fail.

Vignette 1: Trek 2000

Henn Tan started his business as a distributor of electronic components and customized systems, serving the supply chains of large multinational corporations such as Sanyo, Sony and the like in the South-east Asian region. His customers were the multinational corporations, their subsidiaries and subcontractors.

The creative entrepreneurship present at the start-up stage was his acquisition of an existing business as his vehicle so that he could project the image that the firm had been around for a number of years and was not a new company. He left employment in a Japanese multinational where he had learnt the ropes about the electronics industry and their supply chains, and acquired Trek Technology. He also acquired another company, Shing Components which enabled him to tap into Shing's network of suppliers and regular clients. He was successful in building Trek Technology into a trading company that was acknowledged as a regional distributor of electronic components. Such impressive track record prompted Sanyo to make an offer to buy a controlling stake in his company.

Henn Tan would not be an example of continued creative entrepreneurship had he been content to stop and be satisfied with a successful distribution business. Instead he built an entrepreneurial engineering department. He did not select individuals based on professional or academic qualifications alone. He built a team that was as excited as he about building a technology-based firm. The team he built was highly motivated. In 1999 he recruited a young polytechnic graduate who became the technological father of the Trek thumb drive - the flash memory portable hard disk.

Although Henn Tan has not called it as intrapreneurship, that is what he has done. He built and shared his vision of being more than a components supplier with his engineering team. It has sought to provide complete solutions for the users of their components. Their early projects included the development of the decoder cards and subsystems for the video compact disc (VCD) players. The engineering department sought projects in which they could imbed software or systems onto generic components to deliver added value for the customers. For this to happen the team members must believe that Henn had faith in them, know that they would be suitably rewarded, provided with the necessary resources, and empowered to carry out the necessary to achieve the goals.

The thumb drive project was driven by Henn's project manager. He and the team used the flash memory invented by Masouka at Toshiba with the Intel Universal Service Bus (USB) together with their custom-designed software to provide Trek Technology with the product that made its listing on the secondary board SESDAQ exciting. With the thumb drive, Trek 2000, the listed vehicle that consolidated Trek Technology and Shing Components, became an original equipment manufacturer. The thumb drive is used by IBM and labelled as its mobile storage device, Memory Key, and by Sonnet as its range of portable flash drives-Piccolo.

Prepared by Oscar Hauptman and Tan Wee Liang

Boundary Spanning Activities

The organization must be prepared to extend their scope beyond their core business. The second vignette "Popular E-Learning" is an example of this. Popular's core business was book publication, distribution and retail. The CEO of the company decided it was time to consider e-learning as an area for business development. Not having any competences in house, the CEO recruited the expertise required and assembled a team around the project.

Related to the extension of the business beyond boundaries, is the need for the firm to continually be on the look-out for new technologies. In order for this extension to happen, there needs to be technology scanning activity on the part of the firms. The firm needs to have teams and involve others to be on the look out for technology that is

relevant to their operations and even technology that is unrelated to their existing businesses.

Vignette 2: Popular E-Learning

Popular Holdings is a second-generation family business in educational materials. It began as a chain of book stores spanning Singapore, Malaysia and Hong Kong. In the late 1990s its current CEO Chou decided to embark upon e-learning as one of the key pillars of the company's strategy for the 21st century. As the skills and know-how was not present in his company, he searched for suitable individuals whom he could recruit to spearhead this new venture.

Chou recruited by Hee, who had worked for an educational software company and had working experience with the Ministry of Education in Singapore. Hee was familiar with the e-learning issues and challenges confronting educational institutions. Thus it was not difficult for him to develop the strategic roadmap for the company and to assemble the needed team members.

Popular's e-learning strategy is not built on Hee's team alone. It is also built upon the capabilities of the firm in its existing team of educationists and a production team being able to develop material for the Singapore, Malaysia, Hong Kong and Canadian markets. It also relied upon the software capability within the firm which that had been responsible for primary school CD-ROM based material. Hee also built the strategy around distribution channels that Popular has in its retail chain and logistics arrangements. Bringing in additional experts, Popular is poised to the leader in e-learning for the preschool and primary school levels.

This case highlights the importance of attracting and using the right professionals for creative entrepreneurship in firms. Had Chou been afraid to lose control over his empire, and have insisted to persist in an area where he did not have the requisite knowledge or expertise, Popular would not be able to excel. Chou was not afraid to recruit creative people, to put in place and to allow them to lead. Firms desiring to be creative must be willing to facilitate the creative process in which one key is to bring in the right people.

ORGANIZATIONAL ENVIRONMENT & INTRAPRENEURSHIP

In the previous sections, we have outlined some of the research and conditions suggested. The prescriptive literature advocates that the creation of the organizational climate is needed to sustain intrapreneurship. It is hypothesized that in so doing, the individuals in the firms would give their best ideas or efforts to the firm and hence, the firm would benefit from intrapreneurship. If so, the presence of these factors would have an impact on the managers' attitude towards intrapreneurship and would have prompted action in that regard.

To explore this question, the author conducted a survey-based study conducted on middle managers in Singapore. The instrument comprised twenty-seven questions developed from the literature such as Pinchot (1985), and Cornwall and Perlman (1990) on the organizational climate (culture and practices), measures of the individual's attitudes and behaviours, and the characteristics of the organization. In addition to the statements on organizational climate, the respondents responded to a statement each on the extent to which innovativeness contributed to the growth and profit of their organizations, whether they had sufficient knowledge and skill, and whether they would

like to be intrapreneurs. The questions were deliberately kept to the minimum to fit a two-page survey to encourage the return of completed questionnaires. A seven-point Likert-like scale measured both the items and the dependent variables.

A sampling frame was developed to select the top 600 companies with the largest annual sales volume above \$\$60million from the Singapore 1000 Directory representing the service, electronics, manufacturing and construction industries. The companies were classified into four broad categories. The service industry included the financial institutions and hotels. The oil and chemical sectors were included in the manufacturing industry. Six hundred companies were telephoned to identify middle managers who would agree to participate. Middle management in the areas of Engineering, Human Resource, Marketing, Production, Public Relation, and Research & Development (R&D), were chosen because of their involvement in both strategic and tactical decisions. Resulting from the phone calls we sent 434 questionnaires (about 72 percent of the prospects) by fax. A total of 106 completed questionnaires were received, which translated to a response rate of 24.4 percent. Four questionnaires were rejected because they had missing, incomplete or invalid responses. The responses represented the targeted industries satisfactorily.

It was found that the organizational climate factors appear to have a direct effect on intention of being intrapreneurs. Organizational culture, organizational flexibility and innovativeness appear to influence intention. Detailed findings of the regression analysis are shown in Table 1 below. The finding that we confine ourselves to discussing is regression 3 [R3].

This study provided empirical evidence that conducive organizational culture and flexible organizational structure had significant impact on intention of middle managers to become intrapreneurs. Corporations should thus be encouraged to continue work developing such environments to encourage greater intrapreneurial efforts. They should inculcate an intrapreneurial organization culture that allows inventor/innovators and their teams to continue with the project. Continuity harnesses commitment to the project and avoids information loss that occurs when large corporations stick to the usual practice of transferring projects to different teams. Organizations should have upward and horizontal open communication system which allows feedback on new ideas to occur quickly. Employees should be empowered without being constrained in the options available for their needed resources, approvals or intended markets. They should foster a tolerance for mistakes, encourage "trying" or risk-taking, experimentation without fear of failure. An intrapreneurial organization culture should not insist on conformity as any pressure to conform would inhibit the creative process.

Where organizational flexibility is concerned they should allow organizational flexibility enabling employees to cross the boundaries of existing structure of organization, avoiding the jealous tendency to turfiness blocks innovation. Companies should also employees promote innovation and highlight its contribution to growth of the companies. Employees who perceive that their innovativeness contributes to the growth and profit of the corporation are more likely to act innovatively. Recognition of the contribution and publicity about innovation and intrapreneurship would thus be needed. Together with intangible recognition, companies should also provide for tangible rewards systems. Clear criteria should be articulated for risk-taking and innovation. This will promote risk taking and employees will get the assurance that their companies take into consideration their innovative spirit when assessing them.

CONCLUSION

There is a growing realization that creative entrepreneurship is needed in corporations. A growing enterprise needs to sustain its competitiveness. An established business can ill afford not to continue to find new capabilities, strengths, products and services to build its competitive advantage. In this paper, we have examined some of the factors in a corporation's internal environment that may be needed.

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Table 1: Multivariate Regression Analysis on Desirability, Feasibility, Intention, and Action

	R1 Desirability	R2 Feasibility	R3 Intention	R4 Action	R5 Intention	R6 Action
Culture	0.191	0.114	*0.302	***0.452	*.228	**0.363
Practices	0.018	-0.177	-0.156	-0.153	-0.120	-0.126
Flexibility	0.034	0.064	*0.230	0.181	*0.207	0.138
Perception	0.125	**0.363	***0.354	0.202	*0.240	0.107
Sponsorship	-0.002	0.070	-0.026	0.031	-0.042	0.032
Desirability					**0.254	*0.217
Feasibility					**0.227	0.053
Intention						0.137
R-square	0.09106	0.14737	0.33874	0.36112	0.47189	0.44608
F	1.92353	**3.31864	***9.83545	***10.85261	***11.99914	***9.36178
N	102	102	102	102	102	102

^{*} indicates probability level of 0.05

^{**} indicates probability level of 0.01

^{***} indicates probability level of 0.001

PRODUCT INNOVATION AND BUSINESS MODEL: THE CASE OF OKWAP PHONE

Jackson Chang Inventec Appliances Corp. Republic of China

IDEA AND INNOVATION

People sometimes get confused about the difference between 'idea' and 'innovation' even though a clear definition of 'innovation' can be easily found in many management books. Normally, in our understanding, we would recognize that 'idea' is a part of 'innovation'. Innovation is a process that consists of three major portions - an exciting idea, the implementation method of the idea, and the approach that brings implementation to the market. Idea is just the start (or initial step) of innovation. Idea is like the seed of a flower, which needs to be incubated to become a real innovation. A business cannot be successful with only great ideas, but without the implementation and marketing steps.

Furthermore, for any specific great idea, the product innovation process (which implements the idea) and the business model (which brings implementation to the market) might also be very different. It is important to know that one cannot put all ideas into one format of innovation process and business model; and hope that all the ideas will always be successfully implemented and marketed. Therefore, it is rational to say that a "good idea" needs an "effective product innovation process" to implement and an "effective business model" to market the implementation result. Product innovation process and business model which are effective to a specific idea, may not be as effective for other ideas.

Under the constantly changing environment and competition, the company of today should try to create value for users and customers through continuous innovation as a way of survival. In this paper, we describe the manner in which Inventec Appliances Corporation has sought to apply this in its innovations to ensure a fit between its ideas, the product innovation process and an effective business model.

INVENTEC APPLIANCES CORPORATION'S (IAC) GLOBAL OPERATIONS

Inventec Appliances Corporation (IAC) has operations in seven cities globally, with a total of six main facilities in Taipei, Shanghai, Nanjing and Dallas of the U.S. There are more than 1,200 engineers among its 7,000 employees. Main resources are located in Greater China (China and Taiwan). IAC, with its headquarters in Taiwan, is one of the major supplier to Original Equipment Manufacturers (OEMs) and Original Design Manufacturers (ODMs) of the smart handheld and network appliance product ranges. IAC is also developing and marketing OKWAP brand cell phone in Greater China, besides its global OEM and ODM business.

Consolidated Revenue and Target

The consolidated revenue of IAC (including Taipei, Shanghai, Nanjing and Dallas) was US\$960 million in year 2003, more than a 100% growth in revenue over 2002's earnings. IAC's compound average yearly rate is 100% for the period from 2001 to 2004.

It has set a revenue target US\$1,600 million for 2004 (its revenue in 2001 was US\$200 million). Based on its revenue in 2003, IAC is ranked number 43rd in the list of the Top 1000 companies in Taiwan manufacturing sector.¹

Dual Business Models

Traditionally, almost all Taiwanese companies in the manufacturing sector started their business as original equipment manufacturers (OEMs) to build up their production skill. Between the 1970s and 1990s, they thereafter moved on to using the original design manufacturers (ODMs) business model with design capability for global or regional brands. The OEM and ODM business style matched the resource characteristics in Taiwan: - lower cost of labour, a harder working and more flexible workforce, and a domestic market constraint by a population of 23 millions people.

Many companies have successfully expanded their business from their original small operations through connections with major OEM and ODM customers all over the world. IAC also has the characteristic of Taiwanese companies – where majority of the business is concentrated on some key ODM customers. IAC has improved the ODM business model, developing it into an Integrated ODM (IODM) business model by integrating global of engineering and supply chain together to obtain better performance in Time-To-Time (TTM) and Time-To-Volume (TTV) production. This IODM business model has been proven to be very effective in meeting customers' needs in the preceding three years (2001, 2002 & 2003). To keep the company growing as well as to raise the level of technology in IAC's engineering, IAC operates (in parallel with its IODM business model) a second business model called "Community Own Brand Marketing" (COBM) relies on COBM which adopts cell-phone products as its main source of sales revenue. OKWAP is IAC's own brand for its COBM cell-phone business.

As of today, almost 80% of IAC's revenue comes from the IODM business model. This IODM business model has the following characteristics – it is easier to ramp up business scale, very sensitive to efficiency and cost, and is highly focused on the customer's needs. The COBM business model generates the remaining 20% of IAC's revenue. This type of business has potentially higher margins but is coupled with higher risk as well. However, getting feedback by direct interface with end-users in COBM has proved to be a very good training experience for all employees and therefore, a very beneficial activity for the whole organization. In general, employees in the organization, have become more proactive in finding ways to solve problems having receive more knowledge directly from the field.

Companies with two business models naturally have more complicated operations compared to companies with only one business model. Keeping the operations of two business models in balance inevitably poses some levels of difficulties, especially in the area of resource allocation and prioritization of strategy. Nevertheless, the experiences and knowledge learnt from the market through the COBM business model could be a very big advantage over the other pure ODM competitors in doing business with IODM customers. Meanwhile, the operational efficiency achieved by IODM customers could be a very good benefit to COBM business as well.

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¹ Note: A survey conducted by Common Wealth Magazine 2003.

Product Ranges and Smart Phone

IAC's product range cover smart handheld and network appliances. Taking a bird's eye view of the electronic industry map, under the technology umbrella of the Internet, the entire industry can be partitioned into three major blocks namely the computer-related industry, communication-related industry and networking-related industry. Computer-related industry and communication-related industry can be seen as being on either end of the map with the networking-related industry sitting between them. There is another dimension that we call the 'consumer' – which is not physically independent of the three industries but overlapping them. Since the influence from consumers on electronic products is more visible than ever before, this consumer can be depicted at the bottom of the industry map.

Smart handheld and network appliances are converging products emerging from concept to real application in past years. They are products that are the convergence of the three domains of computing, communications and networking. They adopt many forms of technologies from industries. For example, data processing capability comes from the computer industry, wireless and wired communication capability comes from the communications industry, and internet or network connection capability comes from the network industry. One common characteristic of these converging products is that they are all equipped with a connection capability that allows the exchange information with the other devices irregardless of computer, communication or network technology. IAC views this kind of products, including smart handheld and network appliances, as 'access terminals'—terminals capable of accessing and exchanging information with other devices. Smart handheld is smaller in form and consumes less power for its mobility requirement.

IAC has made a reasonable strategic decision to build up the COBM business relying on the product category of 'smart phone' in the first beginning. Selection of this category is mainly concerned with preventing product and technology conflicts with its key IODM customers all of whom have very strong positions in either PDA, or music player, or network products areas. Selection of added value to this category is also a very natural consequence of IAC's strengths in software and Chinese cultural-based applications. The target market of the COBM business model lies in Greater China where there is increasing consumer demand for smart phones and other handheld devices.

CONFIGURATION OF IDEA, INNOVATION PROCESS AND BUSINESS MODEL

For any organization, the availability of a good innovation process to generate, collect and filter ideas, and incubate the ideas into a product marketable to users is critical for business growth. The operational efficiency of the process would play a key role in determining the performance of a business or an organization. An organization may adopt different approaches or multiple incentives to stimulate the generation of ideas from inside or outside the organization. Ideas should also be collected and filtered based on the purpose and target of the project, before being fed into the innovation process.

Normally, there are several stages in the innovation process. The whole process is divided into the Strategy and Planning Stage, the Execution Stage and the Deployment Stage. In the Strategy and Planning Stage, strategic decisions on product direction, product definition and project planning are the key activities after the collection and filtration of ideas from inside or outside the organization. In the Execution Stage, commitment and arrangement of resources to start design and implementation of the product are the main activities, where internal verification and external validation are needed to ensure the quality of the executed results. After the Execution Stage, the products have been

developed. In the Deployment Stage, product release is used as preparation of mass production in order to launch the product and start sales of the product in the market thereafter. Sustaining activities are necessary in continuously and effectively enhancing product popularity and lengthening the product life cycle in the market. In this stage, services and inventory control need to be executed in parallel with the product life cycle.

A well-defined business model to link all resources and the necessary supports is crucial to the success of a product promoted to the market. The business model in detail should include not only the product innovation process, but also other supporting processes. A business model may be strongly related to the style of the organization in running a business. However, a suitable business model for a specific, especially innovative, product may not exist in the organization before the product is developed. Thus, it is very important for the organization to identify which is the occasion to use an available business model or to build up another one which is not yet available to meet the specific requirements of the new product. A traditional business model in the organization may not guarantee success for all new products. Building and adopting a new business model would most certainly increase the risk and resource commitment by the organization, at least, in the beginning.

Considerations of Effective Product Innovation Process and Business Model

In the case of the OKWAP smart phone for IAC, the major strategic decision outcome is to have a more complete product innovation process and a new business model (COBM) to cope with the requirements in marketing this product in Greater China; in contrast to the traditional product innovation process and business model (IODM) which IAC has applied since 2000.

A well-defined business model should be equipped with details derived from a clear vision of the environment and the market, plus a clear understanding of customers, technology, alliances and suppliers. These details would cover management, operation and integration of different processes inside or outside the company. It is more than the product innovation process. An effective business model should be tightly, inseparably linked and integrated with product innovation process, and position the product innovation process as the core for resources arrangement.

The considerations in implementing an effective product innovation process and business model for the OKWAP smart phone were raised since 2000. Certainly those considerations were not completely set up from the beginning, but were gradually formed and improved as IAC progressed in its development of OKWAP. Table 1 below shows the considerations that IAC had to resolve in the development of its business model.

Table 1: Considerations in Development of IAC's Business Model

Strategy Consideration	 Positioning: What is IAC's position in the industry? What does the OKWAP smart phone mean to users? Entry segment: How to enter into market and through which product? Who are the target users? Competing edge: What is the industry situation? What is our competence?
Execution Consideration	Resources:

	Where are IAC's resources from? What can these resources do? Process: Is the current process sufficient for this product innovation? What are the other processes needed to support product innovation? Integration: How to integrate these resources seamlessly and operate efficiently? How to integrate external resources with internal resources?
Deployment Consideration	 Marketing and promotion: How to market and promote based on the characteristics of these products? Community: How to leverage and integrate more external resources to obtain a positive effect from feedback gathered to support promotion? Service: Where and how to set up service shops and what are the services users need? Sustaining: How to enhance the product popularity and life cycle? How to make a good ending of product in its end-of-life? How to manage and control the inventory issues in the product life cycle and post end-of-life?

We discuss these considerations and how IAC approaches them in the following sections.

STRATEGY

The Cell Phone is not Limited to the 'Phone' Itself

Nowadays, the cell phone has become a personal electronic product that people carry every day. Sales volume of cell phones has been in excess of 400 million sets in 2000 and over 500 million in 2003. China has been the biggest market of cell phones, with a yearly consumption of over 50 million sets. Taiwan, with population of mere 23 million, has been the country with the highest density of cell phone subscribers in the world. The demand for cell phone is contingent on the following factors – people's life, industry's progress and society's economy. However, the cell phone business only took off when the GSM phone system was introduced, giving users the benefit of roaming everywhere and freedom in choosing handsets which are independent of the SIM cards, through which carriers would charge their service fees.

With such a huge business opportunity which gives the end users value mainly by 'talking to each other', plus other features, such as SMS and WAP, etc. IAC has a vision that the cell phone should not only be limited to what it is at this moment but will be able

to serve as a personal platform for the industry to continuously put more features in it. The 'Smart Handheld' is the vision IAC has for the cell phone. Thus, IAC has clearly defined its product roadmap of the cell phone based on the concept of 'making it smarter for users to use' and call the developed product 'Smart Phone' from this point of view.

Which Opportunity is More Feasible for Value Innovation?

As the business sales of cell phones is increasing, handset suppliers and carriers are constantly thinking of potential opportunities to drive the business's growth. In late 20th century and at the beginning of the 21st century, majority of the industry's analysts were expecting the deployment of 3G wireless technology to take the telecommunication industry to another peak in the following years. There was huge amounts of investment bidding for the bandwidth for 3G technology from carriers all over the world. Unfortunately, that expectation has not been met for many years and the deployment of 3G technology has been quite slow due to the lack of killer applications and some technical problems with the handset. It is unattractive for end users to switch service from the current 2.5G to 3G without convincing reasons.

On the other hand, high demand for cell phone has attracted IT companies and new start-ups that compete in a market that sees the convergence of telecommunications, IT and computer technology. The race is on to combine more functions of the cell phone with computer and consumer products. Over time, rollouts of a bunch of devices with many different form factors and features combining computing with communications were available in the market. The common problems for those units were – too large size, short standby time, not well integrated features, not user friendly, among other problems. Finally, debuts of converged devices faced the same problem of slow acceptances in the market except for a few exceptions.

IAC considered that the added-value to end users under the transit stage of the whole environment and industry should not be dependent on the technology driven communication approach (3G) and the computer approach (converged device). There should be a way to meet end user needs by integrating applications in addition to these voice functions. These applications would be appreciated and be used very frequently by end users. With the addition of these applications which have never been integrated in cell phone, IAC viewed that it was the right way for building up the company's reputation by users' recognition in this smart phone category. This approach is quite different from the other two approaches mentioned above, which were carried out by many other suppliers.

OKWAP Smart Phone - Practice of Value Innovation

One of the major trends in the current electronic industry is its great reliance on hardware evolution, from components to system, as main driving force of business growth. This phenomenon is very obvious when we look at the development history of the Personal Computer (PC) business which is the kernel of the IT industry. Certainly the software system and applications of the PC also play critical roles in advancing the whole industry to a higher level. However, the rollout speed of software is relatively slower as compared to the newer versions of the Central Processing Unit (CPU). The evolution of CPU speed, according to Moore's Law, has been a key feature of all new PCs for many years.

As time goes by, it is clearer that the clock speed of CPU is not so influential to the whole PC industry nowadays compared with a few years previously, owing to the lack of continuous improvement in the user's perception and appreciation of the feature.

The communication industry has an even more complicated ecosystem which

includes many different members, for example - technology enabler, network provider, handset manufacturer, carrier, content provider and user. Leading players of the ecosystem are continuously pushing forth new technologies and new standards to the system, but the speed of users' reception is always slower than expected by the leading players. The basic reason is that members of the ecosystem need a longer period of time to synchronize with one another from an out-of-pace situation. Before the ecosystem has formed a well-synchronized environment to demonstrate its maturity in managing the interoperability of the planned new technology or standard among different players, end users are not easily convinced to pay any extra service charge until the ecosystem delivers demonstrable value. For this to happen, there is participation by all players in the communications industry ecosystem as such changes does note come about as quickly. It is also important to note that there are no dominant players in the communications industry, who can manage and control targets of technology and dictate the industry standards. Unlike the IT industry, such that the whole ecosystem in the communications industry participated by all players would not act so quickly compared with what happened with the IT industry.

IAC's strategy for the OKWAP Smart Phone is to provide end users with value in an alternative way. The local contents and local touch are two major areas where value is added, in addition to the basic features. These basic features are supported by almost all of the other handset suppliers in general, derived from hardware improvement on components and new protocol or services applied in the network. Examples of such improvements in components are - color LCD, polyphonic ring-tone and camera. Examples of the new protocol and services are – GPRS, WAP, MMS, etc. From the IAC point of view, those improvements are classified under the 'hardware and firmware' category, which is not 'soft' enough. In addition to incorporating those improvements in hardware, protocol or services as basic features of the OKWAP phone, IAC has bundled local content with the cell phone and sought to build up activities with a local touch to promote the phone. This approach has been recognized as value innovation of the OKWAP phone, which differentiates OKWAP products from the others. Local content that the Chinese can appreciate include - PDA and dictionary functions, very useful cultured related features (i.e. Solar/Lunar calendar conversion, world time, auto setup of network connection, Smart Chinese/English input) and free download of ring tones and graphics from the OKWAP website.

Meanwhile, the OKWAP phone has held numerous promotion and service activities to guide users to better utilize all features in the OKWAP phone. IAC has also compiled training information in its website and held training courses in its own OKWAP shop to teach users to personalize on phones or accessories. Since the target user of OKWAP phones are mainly young people (around 85% between the age of 15 to 35), the local contents and local touch have been widely welcomed. In mid 2000, while IAC believed at the outset that this strategy was a very good way to differentiate products from the others, they realized there were numerous ambiguous factors and risks. Nevertheless, the first OKWAP phone i3698 was launched in the Taiwan market in December 2000. The claimed concept of 'Five machines in one body – Cell Phone, PDA, Dictionary, Game and Internet Browser' actually attracted a lot of attention, even though its weak points of bigger size and not-so-fancy appearance left some negative impression on the market.

For the past four years, there has been more than ten models announced by IAC in the Taiwan market. As a result of continuous efforts and improvements in product development, marketing and services, the concept and implementation of local content plus local touch for the OKWAP Smart Phone have grown unique in the end users perspectives and experiences. Experiences and feedback from end users has been extremely favorable and the word-of-mouth effect has drastically boost the market share of the OKWAP phone from zero in the beginning to about 10% in 2004.

OKWAP Smart Phone – Value Expansion

IAC expanded its OKWAP product series from one to three gradually. The A series is aimed at young people, with fashionable appearance and easy-to-use functions. The I series is aimed at the technology hobbyist, with many applications from the most advanced features to evolution any component and system design. The S series is aimed at office people with software and database integration, planned and designed specifically for users processing information frequently. The contents and services are also defined and designed for individual series and models through cooperation with content providers and external alliances.

Expansion of the product series is very normal business practice and useful in addressing the users' needs in different market segments. The effectiveness of value innovation and value expansion has made OKWAP become a major brand of cell phone in Taiwan. This is the reason why IAC OKWAP is able to command a premium price for its units (value share about 30%-40% higher than its unit share in Taiwan market). The unique appeal of the OKWAP phone with local contents and local touch has become a core competency of IAC.

EXECUTION

Resources, Process and Integration

The efforts that the other suppliers invest in developing a cell phone might only be half of the whole efforts that OKWAP normally puts in. The major difference is that the OKWAP phone has included much more functions and bundled much more contents inside and outside the phone at the same price level. This is the essential quality and real value of the OKWAP phones.

There are more than 500 dedicated engineers and supporting people in total in Taiwan and China responsible for the cell phone's development. These engineers and supporting personnel are grouped into different project-based teams and are responsible for all aspects from product planning to market. Besides these internal resources, there are external consultants and alliances for specific technical supports. The resources available include good material management, mass production and a quality management system all of which are shared by all products of all business units in IAC.

IAC has re-defined a new process package for OKWAP product development and services to users. The OKWAP process package involves project-based team work with a high degree of responsibility being reposed on the various teams. Since the resources span across the Taiwan Strait, project management is very dependent on the efficiency and stability of the IT infrastructure. To best protect intellectual property (IP) rights on product innovations, application of IP rights before the completion of product development is strictly enforced.

Since the level of function and complexity of the OKWAP phone is higher than regular phones from other manufacturers, it is necessary to develop the product in parallel with the services needed to support it and community activities based on the characteristics of the product to shorten the time-to-market (TTM). Integration of product, service and community activities is a large-scale engineering effort which would involve managing people in different locations, different departments and different working times. It is

always a crucial challenge for project-based teams to manage resource integration to ensure the success of the project. Initial deployment of this process encountered numerous failures before achieving eventual success. This capability has now grown to become IAC's strength.

Value Participation of Internal Resources

The process package for product, service and community is a value innovation process. Team members from different departments of individual functions inside the company join this process package. From this sense, it is also suitably acknowledged as a value participation process for all team members. In general, product development is the kernel layer of value of all developments. Nevertheless, service activities are another layer of value added to the kernel, and community activities are, again, another layer of value added outside of the former two layers.

The process package operates like a spiral with people of different functions linked to it. Marketing, sales promotion and community activities play an important role for value creation. Development and quality staff are responsible for value implementation. Operation staff including program managers and supply chain managers are responsible for value realization. Service personnel, including after-sales and value-added service, are the key resources for value extension and fortification. There should be no gaps among all functions to ensure continuity between processes, in order to achieve the high efficiency of operation needed for value innovation. Improvement measurements should be taken from time to time.

Alliance Collaboration with External Resources

IAC seeks to mirror the same process package in their partner's organizations. Value innovation where external partners are involved requires the identical process to be in place to link the internal with the external resources. The external resources which have characteristics different from that of internal resources should be arranged in a management system of alliance collaboration. Certainly, the management style of external alliances could not be the same as that for internal resources. However it could be conceptually similar in approaching value innovation by managing this process efficiently with considerations of the business model on sharing benefits created by this process accepted by all participants.

The external alliances include - network operators (carriers), channels, retailers and content providers.

DEPLOYMENT

General Situation

The deployment stage starts from the moment the product is released for mass production. Product, service and community activities are developed in parallel in execution stage prior to this stage. Product release for mass production is a key milestone for operation in companies such as IAC, which still relies on manufacturing as its main activity.

Marketing and sales personnel should have prepared a series of promotion activities for the new product launch, which is a consequence of the product release for mass production. The promotion activities are specifically designed for any model based on targeting specific user segment(s), price band and sales channels. The initial promotion activities are arranged for sales channels and retailers to access to product information and

to understand the product's specialty. Thereafter, the promotion activities are expanded into the user groups through all kinds of media – TV, newspapers, radio, bus advertisements, magazines and Internet websites etc.

IAC's many experiments in adopting new methods to promote the OKWAP phone have shown good results with lower expenses. The key concept is to find out which media the target users normally access and put a reasonable promotion budget on it, instead of pouring all the promotional budget, without focus, on all kinds of media.

Service, including after-sales service and value-added service, is a critical factor for own-brand products. IAC has set up seven OKWAP stores in Taiwan besides the service network linked to sales channels and retailers. The OKWAP stores are places where end users utilize OKWAP services, participate in the OKWAP community groups and content download service without any charge. The OKWAP stores are very helpful for IAC to understand users' needs directly in addition to the other feedback methods, such as: telephone call to call center, e-mail, and user groups in websites.

There are many website contents and web activities prepared for OKWAP users. Users do not need to pay for most of the contents which IAC has licensed. The web activities are held quite often (about once every one or two weeks) with wide varieties for users' preferences and choices.

IAC has developed sustaining models – in addition to the core models of OKWAP phones – planned and launched for specific groups of users and hobbyists. The sustaining models are marketed to effectively lengthen the life cycle of core models. A good understanding of the target segment is necessary before deciding on the process of sustaining the models. Topics of sustaining models might be - color and outlook variations, famous icons in fashion, or even some special meanings of seasons or festivals.

Daily tracking and checking of goods sold in the market is the most important information that IAC would like to know, in order to get the first hand knowledge of market which determines the flexibility of goods supply. An IT infrastructure which can collect all information from individual sales points of retailers on daily basis is the key to success in managing inventory.

OKWAP Community

To further promote OKWAP phones, IAC has sought to build a community of users. The OKWAP community is conceptually formed by several portions. The constituting portions are - OKWAP.com, OKWAP users club, OKWAP dealers club, OKWAP service system and OKWAP Internet alliances. IAC's vision for the OKWAP community is to build up a community with high quality of virtual images and physical experiences to strengthen relationships with OKWAP users.

Some valuable situations and results of the OKWAP community are as follows:

OKWAP.com

- Over 11 million downloads have been made from OKWAP website by end users
- Around 300K page views and 30K downloads per day through WAP, SMS, MMS and PC to the OKWAP phone
- On-line shopping for download-services and accessories for the OKWAP phone

OKWAP Users Club

- Over 1.2 million OKWAP phones have been sold in Taiwan
- Over 500K members of OKWAP users club
- OKWAP college to train users about operations and Do-it-Yourself features

• Frequent road shows and activities on a wide variety of topics

OKWAP Dealers Club

- Market information and operation management support to dealers
- OKWAP value added program (to users)
- OKWAP incentive program (to dealers)

OKWAP Service System

- OKWAP-owned stores, for after-sales service and value-added service
- Quick service and repair system

OKWAP Internet Alliance

- Alliances with major content providers
- Alliances with major cell phone websites
- OKWAP phones are often rank at the top of the hottest phone list

Successful execution and deployment depends not only on internal resources and processes but also on the process of external alliance collaboration. It is crucial to know that success on synchronization of these two processes. Thus, managers should be able to detect problems occurring from the internal and external resources of the company, and possess the capability to manage these resources to solve problems.

Market Information

From the results of a survey conducted by GfK marketing Services in Taiwan, several results concerning OKWAP are as follow:

- Market share of OKWAP phone (by all networks based on units) has grown from 2% in September 2002 to around 10% in February 2004; while Nokia has dropped from 34% to 14% and Motorola has dropped from 32% to 20% over the same period.
- Market share of OKWAP phone based on units is 9.6% in February 2004. Nevertheless, the value share is 12.7% which is about 32% higher than its unit share. According to the survey, the value share of OKWAP is ranked second after Motorola (16.4%) and ahead of Nokia (12.0%).

SUMMARY

Product innovation is a complex, dynamic and systematic resources integration and utilization process. However, carrying out the process effectively is not easy. Very often organizations fail to build up the business models needed for product innovation for many reasons. Resources in an organization which lacks a new business model are largely arranged for the core business and key customers, and are not in favor of new product innovation. However, in many cases, business model innovation is very necessary for product innovations to secure much needed resources.

IAC has considered the OKWAP smart phone as a product category that has uniqueness in the market. Thus, IAC chose to build up a new process package to manage and integrate the internal and external resources, and synchronize the operations of these resources. Hence, the OKWAP practice is a good example of the product innovation process and a business model which effectively transforms ideas into products and

successfully promotes the products in the marketplace.

Creating value through innovation is as important as cutting cost through enhancing efficiency for any company. Certainly, it is better to have competence in both innovation for value creation and efficiency for cost reduction instead of just having competence in one.

THE STRATEGY TO CREATE AN ENTREPRENEURIAL INCUBATOR—THE NTU CASE

Prof. Kuang-Chao Fan
National Taiwan University
Helen Y.C. Hsiao
University of South Australia
and
Lee H.S. Luong
University of South Australia

INTRODUCTION

Business incubation is a dynamic process of business development of SMEs during its startup period, placed under the management of an incubator. The business incubator is a body providing space, services, and hands-on management assistance in order to nurture young firms, helping them to survive and grow during the start-up period when they are most vulnerable (NBIA, 2003). It provides a facility in which a number of new or young businesses are located; and in which these businesses have access to shared staff and services, and receive a pro-active incubation program of advice, training, introductions, and access to resources that may not otherwise be available to them (Harley, 2001). Ever since its first development at Batavia town in New York State in 1959, the number of incubators in the world has gradually increased. Up to 2003 the number is around 4,000 worldwide, as shown in Table 1 (Finer, 2004).

Table 1: Incubator statistics up to 2003

Type	In US	Outside US
Government based non-profit	700	2,700
For-profit private	300	300
Total	1,000	3,000

The traditional government-based non-profit incubators have the common mission of creating a new economy in society. They are developed by: (1) state or city governments, (2) universities (3) special purpose government agencies. In addition to the annual budget which is sponsored by the government they may take extra fees, royalties, or a 1-5% equity stake from tenant companies. After 1990, with the interest of corporations and VC firms, for-profit private incubators grew rapidly. Their aim is to take their technologies to the market quickly (rapid technology commercialization) thereby growing the companies with the view of maximizing their investment through stock market listings or sale. These are the so-called "accelerators" or "catalyst groups" with the internet business model of "without the wall". They normally take a 10-30% (for corporation type) or a 20%-60% ownership stake in their clients' business (for VC type) by direct investment at the early stage.

Current university incubators are mostly positioned as non-profit organizations. In addition to the general missions of government developed incubators, university incubators have the following special features:

- 1. Development by universities and funding by government.
- 2. Professorial involvement in consultancy, student involvement in internships, university involvement in lab and facility utilization, and entrepreneurship programs.
- 3. commercializing campus technology and corporatizing the academic team as a new start-up.
- 4. Channel the linkage between university and industry.

Although its contribution to society is significant, most of the university incubators are not financially viable if the financial support from the university or government is cut. In addition, their contributions to the universities are unsatisfactory in terms of equity return. Since the last decade, some countries have launched a new policy to permit the corporatization of the public universities and for-profit university incubators have been inaugurated in those countries, such as China (Tsuo, 2000; Harwit, 2002), Malaysia (USAINS, 2004) and Australia (ITEK, 2003). Although the business model is more multi-directional and flexible, the history of for-profit university incubators is, however, still young. So far, there is no significant statistics demonstrating the success of such incubators in terms of financial sustainability. Nevertheless, it is correct for such incubators to seek their own long-term viability.

INCUBATION MODELS

Traditional Model

During the early stage of the period from 1960 to 1990, the main reason for the establishment of incubators in most places is to recover from economic recession by means of job creation, regional economic revitalization, and fostering of new types of local business. The profile of incubation model thus developed can be seen in Figure 1 (Smilor, 1987).

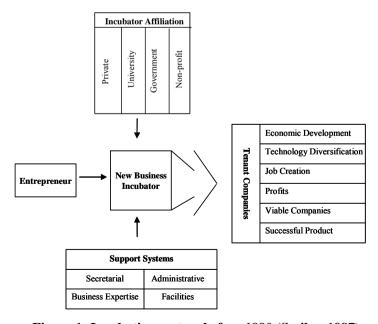


Figure 1: Incubation system before 1990 (Smilor, 1987)

Modern Model

After 1990, venture capitalists (VCs) started to influence the market ecology. Holding immense funds VCs seek potential companies to invest in, rather than establish a brand new company. This business also began to look for potential SMEs. Since then the incubation system also included the joint venture of investment services. A modified incubation model is shown in Figure 2 (Hsiao, 2001).

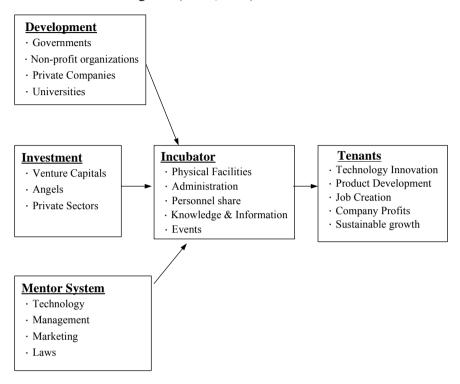


Figure 2: The modern incubation system after 1990

Integrative Model

A new incubation model, that integrates venture funds into the incubation system so that incubator can invest in some potential startups, as shown in Figure 3 (Grimaldi, 2003), is being carried out at North Carolina Technology Development Authority in USA (NCTDA). The NCTDA accomplishes this mission through three primary business sectors: entrepreneurial support, including the development of business incubators; capital formation for emerging companies through direct investments; and research commercialization that moves research from university laboratories into companies (Brotherton, 2000).

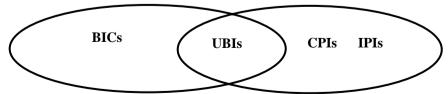


Figure 3: Emerging merits of business incubation model (BIC) and private incubation model (CPI & IPI) into university business incubation (UBI)

For-profit Private Incubator Model

As indicated earlier, most for-profit private incubators are developed by corporations or VC firms. They select potential start-ups and own a significant stake in ownership through investment, before starting to incubate these hi-tech companies "without the wall" (Acorn, 2003). In Taiwan, some VCs have started to establish private incubator corporations to look for long-term investment. It is a new industry encouraged by the government. Towards the end of 2002, there are only six for-profit private incubators (Chang, 2003). The incubation model is shown in Figure 4.

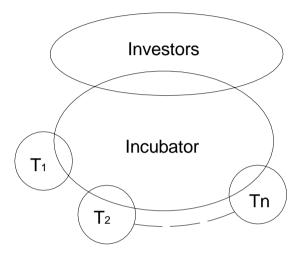


Figure 4: Private incubator model, Ti means the ith tenant.

University Incubator Model

Figure 5 illustrates the relationship of a normal university-based incubator in which the university, incubator, and tenants are independent entities. The degree of relationship is pretty low. The incubator would not deem the tenants as its own asset. Rather, the tenants are treated as clients only. Whenever any tenant fails, the influence to the incubator and the university is not significant. Due to the low operational cost of tenant companies at their start-up stage, the success rate is 80% – compared to other independent start-ups in the range average of 50% – is certainly high. How many can eventually grow to enter the stock market? Although there is no published information on the success rate, the author's experience indicates that it is extremely low not withstanding that seven years have elapsed since the introduction of incubators in Taiwan. It has been noted that the university's incubator only holds 1% to 5% (normally 1%) of the tenant's stake. It can be realized that the incubator would not obtain significant profit at the end. The feasibility of sustainability is suspectable.

THREAT AND SUSTAINABLE FACTORS TO INCUBATORS

From previous research (Fan, 2000) it was pointed out that possible weaknesses of current university incubators, especially for the project type, in Taiwan, could be summarized as below:

- Incubator directors do not have adequate entrepreneurship experience,
- Project type incubators do not have funding sources to last through difficult

periods,

- Incubators cannot be treated simply as a university/industry cooperation program,
- The University's mentor system does not work closely enough with the tenant companies due to lack of incentive,
- The incubator itself does not have a well planned strategy for sustainable management,
- Incubator's profit returns to the sponsoring university is insufficient.

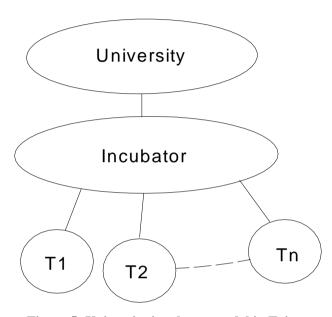


Figure 5: University incubator model in Taiwan

In addition, recent reports have depicted some failure and success factors for a sustainable incubator (Harley, 2001; Finer, 2004; Lalkaka, 2001; Chinsomboon, 2000). In summary, any incubator should possess the following characteristics for sustainability:

- 1. Sustainable revenue generating businesses.
- 2. Deliver quality expertise.
- 3. Conduct adequate due diligence of their stake-owned SMEs.
- 4. Sufficient VC/professional/university linkage.
- 5. Adequate government policies, initial funding and support.
- 6. Recognized brand name in their industry
- 7. A large meaningful database of contacts.

INTEGRATIVE INCUBATION MODEL OF NATIONAL TAIWAN UNIVERSITY

In order to gain a breakthrough despite the above cited barriers, a feasible solution is to form a closer tie among the development body, the incubator and the tenant companies. What does "a closer tie" mean? This paper proposes that the incubator should become a partner of each potential tenant company so that the incubator team could get involved in the company's business, rather than just nurturing the company. On the other hand, the funding body should also become a share owner of the incubator. In other words, the incubator must form an integrative framework to get involved and to share the duty

with each potential tenant company and the funding body. We name this model as the "mutual life body." The conceptual model of this kind is illustrated in Figure 6, in which T_1 and T_2 mean tenants only under pure incubation and T_m to T_n are those invested potential tenants.

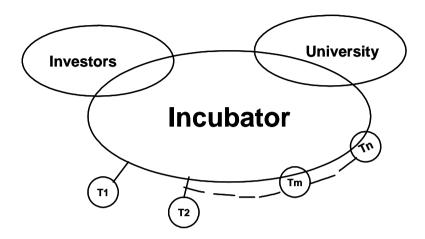


Figure 6: Closely linked incubation system

A feasible new university incubator could be in the form of an Incubator Company, which operates not only in the field of business incubation but also in business investment so as to attract investors, including venture capitalists, angels, private corporations, alumni and staff, to invest in this incubator company. It has been mentioned in previous sections that many public universities are not allowed to take investments from academic funds and the university has already contributed intangible assets to the incubator. These intangible assets could be counted as part of the capital in the name of "technology share" or "equity" of the incubator company. In other words, the investors should donate part of their shares to the university. By this way, the bottleneck of investment regulation restricted to many public universities can be broken through.

NTUIIC (NTU Innovation & Incubation Company) is the only incubation company founded by the National Taiwan University, in 2002 with capital which is from all investors (NTUIIC, 2003). The company is authorized to run the university's incubation business and to invest in potential tenants. In return, the NTU takes 20% share from the company as donation. The organization chart of this company is shown in Figure 7. The integrative framework of the incubation system is shown in Figure 8. The internal flow of NTUIIC system among the university, NTUIIC and tenant companies is shown in Figure 9. It is clearly seen that the sponsoring university provides only the intangible assets, rather than the funding capital. It must be emphasized that alumni and mentors are major partners and investors in the ventures due to their closer relationship with the university.

Those start-ups established through technology transfer from the university, also called the spin-off companies or TLO start-ups (Gregorio, 2003), pay additional licensing fees to the incubator company under negotiation. Collecting rental charges (including services) in cash as well as equity and licensing charges in stock, the incubator company returns the university normal rental fees plus a significant percentage share of its annual profit. A close linkage can be seen; that if the tenants succeed, the incubator company gets

the profit. Consequently the sponsoring university shares profit from the Incubator Company. This is the essence of "mutual life body" as emphasized in this study. This system is also named the "entrepreneurial incubator" in this study.

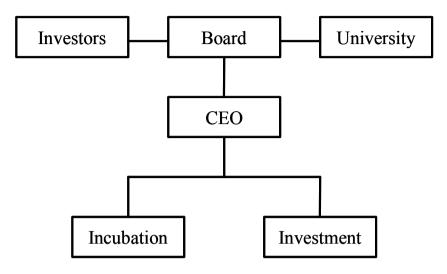


Figure 7: Organization chart of NTUIIC

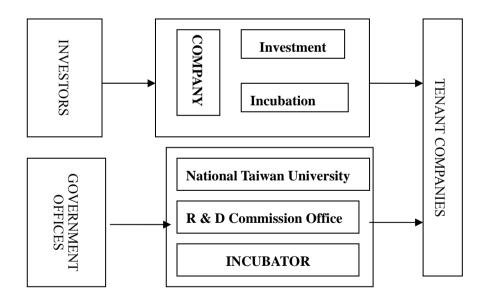


Figure 8: NTUIIC integrative framework.

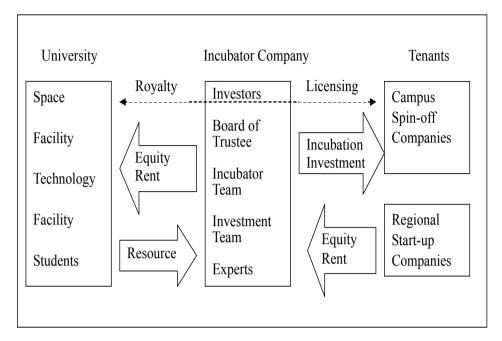


Figure 9: Internal flow of NTUIIC

CONCLUSION

An integrative framework of the new university incubator is proposed in this paper. This system integrates the merits of government-based university incubator and for-profit private incubator. Owing to the constraints on public universities for direct investment this study also proposes the feasible approach of technology sharing from the incubation corporation, which cooperates closely with the original university incubator. Such a system has been implemented in National Taiwan University since 2002. It is still in the experimental stage. Potential profit would be gained from the investment return after several years. Transforming the non-profit system to the for-profit system is the first step toward the entrepreneurship of university incubator.

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Susanto Joseph

Employers Association of Indonesia (APINDO)

The development of a country has been recently shown to be strongly dependent on the growth and advancement of its economic and industrial sectors. It is also made very clear that this increase and advancement can be achieved if the country has a significant number of tough and independent entrepreneurs who are sensitive, respond to change and also able to adapt, so as to contribute to the country. True entrepreneurs are also patriots as they create job opportunities and handle unemployment which if left unchecked could lead to a reduction in poverty.

The 1997 Asian economic crisis, followed by manifold crises in Indonesia have shaken the country's macro economy. Many companies became bankrupt and there was large scale capital outflow. All this happened amidst the political changes taking place in Indonesia. These changes were triggered by the decline in power of Soeharto regime, beginning in 1998.

Economic growth has since been relatively low with the country's GDP registering between 3-4% per year. Unemployment has increased, resulting in 40 million unemployed people. Yet, Indonesia survives because of the contribution from the informal sector and the Small Medium Enterprises (SMEs) which in many countries are considered to be led by tough, pioneering entrepreneurs. Their contributions to regional development within a country, role in supporting larger industries and capacity for innovations have been widely acknowledged.

In Indonesia, there are approximately 67% workers in the informal sector and with the rest in the formal sector. According to a survey carried out in 37 countries (2002) on the relationship between unemployment and entrepreneurship¹, it was found that when unemployment is high, total entrepreneurial activity will also be high because the alternatives available beyond the labor market diminish. However, a country cannot develop and advance if it is only holding on to the informal sector, doing so will lead to serious poverty.

In general, it is known that the informal sector is identified with low productivity, low income, limited access to market, low finance; consequently putting the country in a less competitive position. The informal sector is mostly dominated by small household industries with a workforce size of between 1 to 4 people. If these micro-enterprises are effectively empowered, these small industries could develop into SMEs. What a country should do is to direct and transform this micro economic and informal sector into a formal SME sector?

John Naisbitt, futurologist and well-known writer said at the Global Entrepreneur Forum held in Singapore in 1995 that SMEs will be the main players on the world's economic chessboard in the future. It is easier for these SMEs to excel, be competitive and seek new economics opportunities because they are able to make decisions and take faster steps than others. They are not constrained by hierarchy and bureaucracy as with large companies. This organizational flexibility enables them to exploit market

¹ Marc Cowling & William D. Bygrave, Relationships between unemployment and entrepreneurship in 37 nations participating in the Global Entrepreneurship Monitor 2002, Summary report can be downloaded at www.gemconsortium.org.

opportunities, implement innovation, create new products and adapt to fast changing consumers' needs and tastes². For example, many Japanese companies that have won a major share of niche markets are SMEs. But of course, SMEs which are making earnest efforts to change should be assisted by their parent companies, receive financial support from the private sector and the government.

Thus, the informal sector must be viewed as providing a space for transition and opportunities for learning, as well as a medium within which creative and tough entrepreneurs are selected and emerge. This transformation process reflects the growth of strong SMEs as the embryos of big and modern companies. However, this process needs to involve many parties, especially the government whereby its regulatory policies should provide economic assistance, easy access to banking institutions, low interest loans and a proper assistance team. Community figures, especially successful entrepreneurs, can be looked upon as role models that reflect the knowledge and skill of entrepreneurship. These role models will accelerate the process of economic recovery of a nation and lead the country to achieve maximal growth.

MICRO-ENTERPRISES AND SMES IN INDONESIA

It is interesting that the number of micro-enterprises and SMEs grow during and after crises escalate in growth. In 2001, there were 90 clusters of such businesses. In 2002, there were 332 clusters and in 2003, there were 375 clusters. The fields of such clusters were common agribusiness of livestock, farming, fishing and agriculture. There were also mining and electricity businesses.

According to a study conducted in 2003 by the Indonesian Central Statistic Bureau (BPS), there were more than 42.4 million SMEs. The activities of these SMEs show their potential for contributing to the nation's economic growth. However, this increase does not necessarily improve economic growth (which is relatively stagnant at approximately 3-4%), such growth is dependent on the consumer sector. Similarly, other sources contributing towards economic growth such as export, investment and development expenditures did not increase. Figure 1 shows the national supply of goods and services by source, with small and medium sized enterprises providing 43.8% of the total supply.

Although economic recovery has not been achieved for the time being, the microenterprises and SMEs are valued as economic saviours for their role as motivators in speeding up economic growth and as job creators. In 2003, the total proportion of workers in micro-enterprises and SMEs increased by 12.2%, compared to the year 2000, in which workers only increased from 70.4 to 79.0 million. Compared to large companies, the micro-enterprises and SMEs show greater immunity to these crises. They are not reliant on imported materials and are able to reach the domestic market with their products and services. Thus, the development of the micro-enterprises and SMEs must be included under government strategy for these enterprises provide work opportunities and reduce the level of poverty.

The government itself through the Ministry of SME and Cooperation has highlighted these policy directions to aid the development of SMEs:

- 1. Create a conducive business climate
- 2. Increase access to productive resources
- 3. Develop excellent and competitive entrepreneurs and SMEs

² Idem, "Small businesses make an important contribution to the success of a country's economy. They are major creators of jobs, they innovate, and they spot and exploit new opportunities.

This paper does not intend to discuss the SME problem in great depth. However, the Indonesia SME sector still remains the supportive backbone of its national economy, especially during economic crises. Yet when the focus is on entrepreneurship, this issue of SME needs to be addressed. In fact, there are several successful, creative and innovative entrepreneurs born and formed as a result of the involvement participation in the SME business sector.

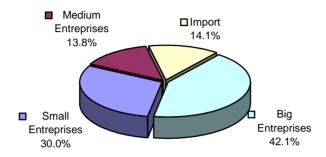


Figure 1: Supply structure of goods and services nationally

Since 2002, the Indonesian government (through the Governor of Indonesian Central Bank (BI) and Poverty Reduction Team) led by the Coordinating Minister of People's Welfare has established a Memorandum of Understanding (MoU) on poverty reduction through the empowerment and development of SMEs. In 2003, a task force of SME financial consultants and facilitators was formed as one of the alternative strategies to increase banking access to SMEs. This strategy will succeed if the main SME players are entrepreneurial cadres supported by a conducive business environment and receive holistic development in many aspects, such as management, technical knowledge, marketing, business development, as well as wide support from related parties such as bankers, NGOs, universities, business community, and donors such as Asian Development Bank (ADB) and World Bank.

In this paper, the discussion will be focused on the entrepreneurial aspect, such as efforts on how to increase entrepreneurship among SMEs and the relevant constraints such as internal factors which come from the SME's personnel and external factors which hinder entrepreneurs from maximizing their development. Several examples will be quoted as possible learning models.

SUCCESS STORIES

There are many success stories of entrepreneurs around the world that have been written and published. These success stories serve as a form of inspiration for beginners who decide to be an entrepreneur. This is the decision undertaken by some entrepreneurs in Indonesia who chose to start their business from ground zero. Some were financed with their inheritance and some conspired with government officers through certain projects. However, this issue will not be discussed as present factors have made it easier, such as certain facilities which are not based on individual efforts.

The following are some of the criteria used in selecting the entrepreneurs that are portrayed below:

- 1. Portraying self-reliance by starting their businesses from the bottom, thereafter growing into large organizations without depending on support from the government or any other group.
- 2. These entrepreneurs become 'idols' for new entrepreneurs and have shared their experiences through numerous seminars and discussions on entrepreneurship and SMEs.
- Their success stories have been widely published and have inspired others to become entrepreneurs. They must be recognized as pillars of their nation's economy.

Table 1 sums the entrepreneurial attributes of the three entrepreneurs.

Bob Sadino (71 years old) is one of the legendary entrepreneurial figures in Indonesia. His name is identical to simplicity. His daily attire differs from other entrepreneurs. The boxes motif T-shirt and short jeans characterize his attire. His speech is uninhibited and he is an easygoing person. Bob owns one of the biggest retail business that focuses on serving expatriates' needs. As the founder of KemChicks Group (which as of 2004 has been around for more than 30 years), his career began as an eggs seller at South Jakarta, a place where there were a lot of expatriates. Over time, his business grew to include a supermarket, a sausage factory, vegetable farm, agribusiness, a travel bureau, a snacks factory, a restaurant and a magazine company. He even became a movie star.

How did Bob start his business? His business capital was sheer optimism and courage. "Just do it", he said. Wasn't he afraid to fail? He answered lightly that failing is normal – if we haven't failed, we do not deserve life.

According to his staff whom he considers as family, his relaxed and open attitude puts them at ease to discuss or argue about his company activities. The implementation of this father-and-son type of relationship is the main success factor of KemChicks Group. The core of this kind relationship is based on being a trust 20 years ago. Then, Bob declared that he had left his position as a decision maker and he had no difficulty choosing professional cadre to run his business.

One of the factors justifying his selection was the company's culture, which recognizes employee leadership. As he says, it means choosing a leader at the operational level and the selection is done by 'the kids' themselves who choose their colleague as their leader. Bob himself plays the person who steers the company strategy through 'signs'. Company activities are also based on teamwork where responsibility is divided equally among workers. Besides this, everyone has direct control over each other. Thus, Bob has actually implemented a learning organization where as the founder; he has bravely given opportunities to his next generation to learn from their mistakes.

According to a management expert, Bob's leadership has succeeded in implementing decentralization; empowering and enabling modern companies to survive in today's competitive world. Further information can be browsed at Http://www.expat.or.id/sponsors/kemchicks.html.

Purdi E. Chandra (45 years old), founder of Entrepreneur University is one of several entrepreneurs who started his business from ground zero. He started his informal business when he was in junior high school, breeding chickens and ducks and selling them to a traditional market. When he was 23 years old, he established an education advisory

institution called "Primagama" with his friends; dedicated to serving those who wish to continue their studies at the university. Then, he was a university student of four faculties from two universities in Yogyakarta. As he felt that he had gained nothing from the education, he left the universities and started his own business. In the beginning, he only had one outlet with two students. Now, he has hundreds of outlets with more than 100,000 students per year. "Primagama" has been declared by Indonesian Guinness Book as the biggest education adviser institution in Indonesia.

Table 1: Entrepreneur's Spirit, Behavior and Style in Practical Experience based on their Success Stories

Bob Sadino	Purdi F. Chandra	Sukyatno Nugroho	Other Entrepreneurs
- Dare to look different	- Imaginative	- Willing to take risks	- Never give up, persevering
- Learn from mistake	- Like to experiment	- Adaptable	- Diligent, hard worker
- Employee	- Courage to explore	- Never give up	- Brave to act against the flow
Empowerment			
- Decentralization	- Brave to fail	- Strong will	- Keep learning
- Enabling	- Strong will to succeed	- Persevering	- Creative
- Recognition	- Creative	- Team work	- Flexible
- Depends on the team	- Skills management	- Innovative	- Willing to take risk
work			
- Open management	- Interpersonal skills	- Ready to change	- Strong will to improve
- Friendly	 Leadership skills 	- Creative	- Able to compete
- Father-son relationship	- Intuitive	 Possess initiative 	- Discipline
- Family atmosphere	- To survive	- Diligent	- Leadership skills
- Strong leadership	- Optimistic	- Willing to learn	- Business efficiency
- Pioneering spirit	- Possibility and success thinking	- Self-reliant	- Open minded
- Failure is normal	- Ambitious	- To make breakthrough	High enirit
- ranule is normal	- Amornous	- 10 make breakmough	- Modest
			- Puts in best efforts
			- Quick in responding to
			market opportunity
			- Sharp in reading customer
			needs
			- Uses of new technology
			- Self-reliant
			- To make breakthrough

Purdi said that he learned how to run a business from his parents, especially his mother. Supported by his wife, he opened Primagama branches in every big city in Indonesia. Primagama became a holding company which controls approximately 20 of the biggest companies all around Indonesia in every field, such as formal and informal education, telecommunication, travel bureau, restaurant, supermarket, insurance, furniture, golf field and more. The establishment of the Entrepreneur University was a combination of his business obsession and social obsession to create new entrepreneurs. The University led to creation of a new work field for the unemployed in Indonesia.

His writings are widely published in the media. Purdi's writings are influential although his ideas are sometimes seen as irrational – however, his success refutes this

criticism. Purdi seems convinced about sharing his experiences with readers on his strategy to develop his business which started from ground zero and grew to a worth of a billion rupiah in assets. In his book "Being Success Entrepreneurs" (2003) which has been reprinted four times, he says that an entrepreneur must have the courage to dream, to try, to explore, and to fail, and success is the first step of being a true entrepreneur.

Four main characteristics of entrepreneurs are creativity, management, interpersonal skills and leadership. The next main factors to starting a business is to be brave, followed by skills. Purdi said that entrepreneurs must have characteristics such as willingness to make something big from something small, intuition, and the determination to survive even after incurring numerous debts. An entrepreneur has to learn to adapt to and deal with debts which exist in every business. The last characteristic is optimism. An entrepreneur is always expected to be creative at all times. Creativity brings new ideas to goods, services or innovations which enable them to meet the constantly changing needs of the market. Daring to be different for others is an expression of creativity and possessing and entrepreneurial spirit. Positive thinking is not enough. According to Purdi, we need 'successibility thinking'. "Successibility thinking" examines the possibility of success. Moreover, it encourages them to be forward thinking. To engage in successibility thinking, one must marry "possibilities" with thinking about "what is likely to succeed"

In his entrepreneur university, the education syllabus is based largely on developing emotional intelligence and cultivating a business intuition. Materials given not only include knowledge but also entrepreneurial values such as no retreat, strong spirit, ongoing creativity and innovation, deep intuition, acting bravely in facing high risks, and exploiting business opportunities without test, remarks, and title. These are the qualities that one will need (upon graduation) to succeed as an entrepreneur. This is the story of Purdi E. Chandra, a true entrepreneur. More information can be obtained from www.primagama.co.id.

Sukyatno Nugroho (56 years old), known as a seller of mixed fruit drinks (or ES TELER), has many branches around Indonesia. Sukyatno, the owner and also founder of ES TELER 77 Juara Indonesia is very popular and well-known by society. His mixed fruit drinks business was established in 1982. The business started from a small canteen and has now grown to become a large chain of franchised fast food restaurants spread all over Indonesia, Malaysia, Singapore and Australia. His restaurant outlets not only sell mix fruit drinks but also packaged food and various great tasting Indonesian traditional foods. He has 5000 workers in his company.

His business is unique because it begins with his mother's participation and eventual win in the mixed-fruit drink making competition. Es Teler is a mixed fruit drink made from avocado, coconut pulp, jackfruit, milk, sugar palm fruit and shaved ice. After a family discussion, they eventually opened a small canteen in a shopping centre called ES TELER 77, 77 was chosen because it is considered a lucky number. Quite often, the small canteen had to be closed due to floods caused by bad weather. His business was threatened many times as it was considered a disturbance. Finally, the Sukyatno family decided to open a restaurant near a shopping centre at Gajah Mada Plaza. A few years later, they decided to establish a small company which turned out to be the pioneer of their business empire. Some branches were also opened in Jakarta.

As a small company, they faced constraints very often from the owner of the land and the shopping centre manager. However, they did not give it up. Once their canteen was unfairly shut down. They strongly willed to open five new branches at another location. This idea resulted in the emergence of the franchising concept of ES TELER 77.

The first franchise was opened at Solo in 1987. Many people were interested to take up the franchise. The year 1987 to 1990 was a period of hard work and learning with more than 100 branches opening during that period.

The family team led by Sukyatno as the oldest son adapted very quickly and became an expert in this franchising business, leading to rapid business growth and the opening of their first central kitchen and warehouse in 1997. Thereafter, the company started to explore the international market to continue with business development.

In 1998, Sukyatno, the President Director of the company, was bestowed the title of Doctor Honoris Causa by the American World University, IOWA, USA, with a thesis titled "Look Globally but Think and Act Locally." Further information can be browsed at www.esteler77.com.

Beside the three examples above, there are other successful entrepreneurs who have succeeded in leading their businesses and contributing to the development of the country's economy. It is noted by SWA Magazine, a national magazine which rates the best entrepreneurs, that there are a lot of business figures and professionals who have succeeded in their own field. Needless to say, it will take much time to get information about their key success factors. Furthermore, books that published their experiences, their successes and failure in the business world, are rarely found. They possess the spirit that "Never give up, strong will, hard work, going against the flow, continuous learning, creativity, readiness to change" are watch words that mark their entrepreneurial careers.

These stories of successful entrepreneurs are periodically published in various business magazines and newspapers. One of them is KOMPAS, a well known national newspaper in Indonesia, which regularly presents the efforts of these entrepreneurs, such as:

Johnny Andrean (39 years old), known as a creative and innovative hair stylist and dresser, started his unisex beauty salon business in 1978. The business grew year after year, selling JA products such as hair foam and cream, conditioners and shampoos as the trademark of the business. Presently, his business is expanding to the Johnny Andrean Beauty Centre and Salon and has more than 163 branches throughout the country including 37 training centres for hair cutting skills.

As Johnny is always on a lookout for new opportunities in line with the development of his business, he also expanded his business network into bridal couture and wedding services, bakery, and franchising. Many young hair stylists have since followed his steps.

Alim Markus (54 years old), known as the king of household appliances, joined the business world when he left junior high school at the age of fifteen. As the number one person of Maspion Group, his business expanded into electricity, banking, real estate and herbs. He started his career from the bottom as a salesman, a cashier and an administrator before becoming a president director. Realizing his lack of education, he expanded his knowledge by taking up classes such as accountancy, English, Japanese, even Korean and Dutch. He is completely involved in all the company's activities having followed it from its small beginnings to its present state as a big company. He believes that people are not professionals without knowledge. Being professional is not enough. It has to be followed by strong will, discipline and diligence. One thing that is very important is his leadership. It is not surprising that at the age of 30, he replaced his father's position as the President Director of the company in 1980.

Maspion is known as the prime producer of household tools made from plastic and aluminium, with tens of companies are under the flag of Maspion employing thousands of workers. He is very selective in developing his business, always choosing the best partner

such as Du Pont (USA) who has an developed an advanced teflon technology which lets him take the lead in the agrochemical business. Cooperating with Samsung (from South Korea) has also led him into the electrical and electronic home appliances industry. Markus is also very efficient in managing time, work and appearance. His workroom is not too big and always open.

There are unique entrepreneurs such as **Sofwan Aliwarga** (68 years old), the owner of printed batik, who serves his consumer wearing worn-out shirt and shorts. "I never think of my appearance, but I think of spirit and hard work. That's my main unique feature", he said: Sofwan was rewarded by the government under the producer exporter category in 1993. PT. Windu Eka, his printed batik company, started out as a family business. In 1970, the company started as a handwriting business. In 1972, he improved his machine into a printing rotation machine and upgraded one year later to a computerized machine. In 1990, his company specialized in exporting textiles to fulfill demand from Europe, USA and several Asian countries.

According to Sofwan, to succeed as an entrepreneur, one must work to achieve excellent results and not disappoint the consumers. By its motto, which is hard work and delivering the best product, the company is trusted by several garment industries in Hong Kong, USA, Netherlands, Japan and Malaysia.

EFFORTS TO IMPROVE ENTREPRENEURSHIP

A well-planned program will succeed if the players have the knowledge, skill and attitude needed to achieve the goal of the program. This time, formal entrepreneurship development has been implemented by the Government through providers of Business Development Services comprising approximately 400 professional and commercial companies all around Indonesia, accessible by all existing and also individual entrepreneurs.

Entrepreneurship development has also been implemented by existing government departments. For example, the Department of Agriculture provides help through consultation and advisory services such as the Agriculture Guidance & Counselling Team.

The Department of Manpower and Transmigration also plays a part through the enlargement of a productive work field project (1997), which also published an entrepreneur module dedicated to young educated workers who chose the path of entrepreneurship to earn their living. This effort also creates young professional entrepreneurs. As we all know, youths who are unemployed typically lack education and skills. Thus their job search is largely futile. The few ways for them to find work is by starting their own business. Otherwise, they may remain unemployed³. On the other hand, they also do not possess adequate entrepreneurship skills that are pre-requisites for starting their own businesses. This is why informal training in entrepreneurship is much needed.

Several entrepreneurship modules are as follows:

Information of business opportunities

³ It's not surprising if in ILO Recommendation Nr.189/1998 on the General condition to stimulate the creation of work field for SMEs stated that "....SMEs are getting more responsible for the creation of majority work field in the whole world". Beside that, SMEs give positive support in motivating the achievement of national development goal, which are : improve sustainable economy growth and ability to react to changes by through flexibility, stimulation innovation, entrepreneurship, technology development and research, increase the participation of the less fortunate economic group, the marginalized group in society, among other groups.

- Starting the business
- Promoting the new business
- Drawing up a balance sheet
- Choosing quality materials
- Encouraging business achievement
- Fixing prices
- Calculating the break-even point
- Managing emotion when facing consumers
- Result-oriented efforts
- Finding and exploiting opportunities
- Finding and exploiting markets
- Creativity in exploiting situations

Meanwhile, the government's efforts for the empowerment and development of SMEs began with the formation of the Business Development Services in 2003 with the core services of business facilitation and consultation. It is expected to be available to provide services in areas, including training in conducting feasibility studies, drawing up a credit proposal, a business plan and a financial report. Before the services can be provided, the consultants or facilitators will be selected, trained and certified after they have met all the feasibility criteria (fit and proper test).

Generally, the consultants or facilitators giving assistance to the entrepreneurs of SMEs are required to have an understanding and mastery of all the following:

- Knowledge of banking and credit
- Criteria of feasibility and banking ability of SMEs required by the bank, so as to arrange the business plan, feasibility study and credit proposal
- Characteristics of SMEs and obstacles faced in bank relations
- Other aspects needed for a business feasibility study are legalities, marketing, production, capitalization, financing, etc
- Management and business financial analysis
- Capability to find the opportunities' potency and business risk
- Environmental matters in the relation with the business
- Knowledge and entrepreneur spirit from medium to high level
- Guiding the implementation of case studies, arrangement of credit proposal, feasibility study and evaluating the entrepreneurs that have been trained.
- Be computer literate, at least with training in MS Word and Excel programs

Aside from the foregoing, there are several private institutions that provide entrepreneurship courses, but most of them are more focused on salesmanship and marketing skills. There are also writers who spread their knowledge and entrepreneurial skills through their articles in many forms of mass media or books on entrepreneurship road. One of them is Andrias Harefa, through his book "Starting Entrepreneur from Zero' (2000), who put forward the following success factors of an entrepreneur:

- motivated by an idea and a dream
- largely dependent on creativity
- exhibit courage
- disbelief in luck but real effort
- view a problem as an opportunity

- choose business according to hobby and interest
- start with existing capital
- love to try new things
- be able to rise from failure
- not depending on academic titles

CONSTRAINTS OF SMEs IN PRACTICES

In general, SMEs are still marginal in the domestic environment. Many of them operate outside the formal legal system; contributing to widespread informality and low productivity. They lack competence and access to financing. Thus, to discuss constraints faced by SMEs, we also need to discuss the constraints faced by entrepreneurs in their businesses. The constraints can be divided into two groups: internal and external entrepreneur factors:

Internal Entrepreneur Factors:

- Financial difficulty; e.g. trapped by money lender
- Limited capital and property for investment
- Limited knowledge. It may be related to low and improper education. Being educated does not necessarily mean receiving formal education
- No access to training and counseling
- Limited technical skill or competency in a related field
- No information or networking to get support
- Limited spirit and entrepreneurial attitude

External Entrepreneur Factors:

- Difficulty in getting raw materials
- Traditional business management
- Limited access to funding resources or other financial institutions
- Inability to fulfill the terms of credit and administration required by related financial or government institutions
- Business costs/burdens; e.g. high interest rate, doubling tax collection
- No coordination among government institutions related to the entrepreneur and SMEs, so an overlap in responsibilities occur. Almost every department in Indonesia has their work unit related to SMEs
- Unsupportive business climate and environment
- Lack of strong entrepreneur association in the SME sector that can fight for their aspirations and interests when faced with domestic issues or threats from global competition.

CONCLUSION AND RECOMMENDATIONS

It is undeniable that given the difficult economic situation, entrepreneurs and SME are an important contribution to the recovery of a nation's economy. Entrepreneurs who lead many SMEs become 'patriots of development' as they are job creators and innovators. They spot and exploit new opportunities and also help the government to handle social and economic problems caused by emerging economic crises. Unfortunately, the entrepreneur development solution in Indonesia is not directed at the external factors. It is admitted that access to capital, access to information, access to markets, technology

and managerial skills are important, but the most important aspect is the entrepreneurs' mindset. In the end, it is this mindset that will be the basis of attitude or behavior.

Several actions are suggested to speed-up the nurture of tough entrepreneurs:

- Entrepreneurs gathered in SMEs associations need to form strategic alliances with big and successful enterprises with these enterprises playing "godfather" to the smaller enterprises. Such a pattern can achieve a high level of cooperation, such as business learning and training in the processes from pre-production to post-production.
- Entrepreneurs' development need to be managed, centralized, integrated and comprehensively implemented in one department, not across many departments and this involves successful entrepreneur practitioners.
- As young job seekers are the biggest group in the unemployed, entrepreneur development needs to be focused on this group through various entrepreneur programs conducted at education institutions and informally conducted at a school of hard knocks or business world. Education institutions such as the Entrepreneur University established by Purdi F. Chandra can be held up as a model which require their students to create their own business and they graduate only if their businesses succeeded. In addition, students are not awarded any academic title.

To develop entrepreneurs to become renewers of the national economy, the following suggestions are recommended:

- The government forms a National Body to integrate and comprehensively, formulate, develop, motivate, evaluate and monitor entrepreneurial activity; including the arrangement of in-depth research on success and failure factors of entrepreneur and entrepreneurial best practices⁴.
- Encourage the business world including employers' association and educational institutions to take part in the growth and motivating the regeneration of new entrepreneurs through various business activities, for example annual competitions, promotion week, product marketing, etc.
- Stir civil society organizations such as farmers, fishermen and workers' union to be an organize community-based activity to identify potential entrepreneurs from society. Beside that, NGOs can also participate as in identifying entrepreneurial candidates in the business world.
- Plan cooperation with international organizations, such as UNDP, ADB, World Bank, ILO and donor countries, bilaterally and multilaterally, through pilot

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⁴ Great news (Kompas, 27 May 2004) reported that government through the poverty reduction committee lead by the Coordinating Minister of Public Welfare has provided non-guarantee loan for the SME program. As the first step, the government bank will provide loans to SMEs directly or through the SME agency/intermediary. Other banks will be brought in as partners. This program is similar to one launched by Bank Artha Graha, a private sector bank. Its entrepreneur credit program provides credit to the informal sector SMEs without requiring loan guarantees. The Bank play as foster father after considering the business suitable for the loan and trust each other while not ignoring prudent principles of bank management.

projects or technical cooperation in entrepreneurial and SME development. For example SEED (Small Enterprise Development) training tools include – Entrepreneurship of ILO which offer various programs like Start Your Business, Improve Your Business, Expand Your Business, Know Your Business, etc.

Pay attention to entrepreneur empowerment which not only includes knowledge
and skill, but also changes of attitude and emotional maturity that is demanded
in the entrepreneur profession. Success stories of entrepreneurs from various
levels can also be showcased as role models and examples of the influence of
entrepreneurial culture.

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Annex1

The Employers' Association of Indonesia established on January 31, 1952, was called the All Indonesian Consultative Body for Businessmen's Social and Economic Affairs (PUSPI). Since its 2nd National Consultative Conference, the association in 1985 was renamed as The Employers' Association of Indonesia or Asosiasi Pengusaha Indonesia (APINDO). APINDO is the only representative of Indonesian Employers, recognized by Decree of the Manpower Minister and also mandated by the Indonesia Chamber of Commerce & Industry – KADIN INDONESIA to handle industrial relations and manpower matters.

At national level, APINDO is a part of the National Tripartite Cooperation Council. This body consists of representatives of the government, the employers and the workers union.

The vision of APINDO is to create business climate for the businesses through its primary mission to encourage harmonious industrial relations especially at the plant level, to represent Indonesia business in various manpower institutions, to protect, advocate, and to empower all business players especially their members.

The activities performed by APINDO cover eight core areas:

- 1. Organization, regional development and public relations
- 2. Foreign relations and international cooperation
- 3. Industrial relations and advocacy
- 4. Wage and social security
- 5. Training and education
- 6. Productivity, OSHE and environmental protection
- 7. Small and Medium Enterprise
- 8. Women entrepreneurship, women workers, gender and social affairs

At this moment, there are about 6.000 companies throughout the country that are registered as regular members. At international level, APINDO also develops networking and is a member of ASEAN Confederation of Employers (ACE), Confederation Asia Pacific of Employers (CAFÉ) and International Organization of Employers (IOE). Every year, APINDO represents Indonesian employers at the International Labor Conference in Geneva. APINDO also cooperates with International Confederation of Free Trade Union, Nippon Keidanren International Cooperation Center, Korean Employers' Federation, and more

The APINDO Leadership Council consists of 3 levels; namely The National Board, The Provincial Board in 30 provinces and the District/City Board in 175 districts.

Zainal Abidin bin Othaman *MARA Negeri Sembilan*

INTRODUCTION

Entrepreneurs can be individuals who act independently or are part of an organization. They create a new venture or developed an innovation and take the risk of bring them to the marketplace. Identifying opportunities in a dynamic and uncertain environment requires an entrepreneurial mindset that can take on the passionate pursuit of opportunities. After identifying the opportunities, entrepreneurs take actions to exploit them and establish a competitive advantage. The process of identifying and pursuing opportunities is entrepreneurial, but this activity alone is rarely enough to create maximum wealth or even survive over time. The action taken must be valuable, rare, difficult to imitate and non-substitutable to create and sustain a competitive advantage.

Innovation refers to a change in technology that departs from previous ways of doing things. The outcome of innovation is to find a better product, process or procedure in accomplishing the task. There are two fundamental types of innovation, namely product innovation and process innovation. Process innovations are changes that affect the production method. Product innovations are changes in the actual outputs (products and services) itself. Innovation teams refer to a group of persons finding solutions to come up with a better product, process or procedure.

The above circumstances should lead the entrepreneurs to organize and create an entrepreneurial innovative organization. The increasing rate of globalization and increasing challenges from competitors warrant that entrepreneurs spend time to think of new avenues for change in their existing endeavors. In order to fulfill this need it is important for the organization to have a vision, culture and process for innovation.

This paper will present selected Malaysian entrepreneurs who have infused their corporations with entrepreneurship and developed innovation teams. They have been drawn from the 24,510 Bumiputra entrepreneurs registered under the MARA Information System.

ENTREPRENEURSHIP AND INNOVATION TEAMS

In order for an entrepreneur to create an entrepreneurial innovative organization, it is important for the entrepreneur to instill in their organization elements that can inspire and take the organization to new heights of success. At the same time, entrepreneurs should bear in mind that external forces also play a significant role in enhancing the success of their undertakings.

Paint an Inspiring Vision

The entrepreneur needs to incorporate in their company a vision that is highly desirable, challenging and believable. There are manifold benefits to be gained from this move. First, when people share a common goal and on a journey or adventure together, they will be more willing to accept the changes, challenges and difficulties that the journey might entail. Secondly, more responsibility can be delegated. Staff can be empowered and

given greater control over their work. This is because they know the goal and direction in which they are headed and can be trusted to steer their own raft and to figure out the best way of getting there. Thirdly, people will be more creative and contribute more ideas if they know that there are unsolved challenges that lie ahead. They have bought into (that is, decided to be participants) the adventure so they are more ready to find routes over and around the obstacles on the way.

Yaakob bin Husin established YBH Food Products Sdn Bhd at No. 115, Jalan Perdana 5, Taman Perindustrian Perdana Lukut, 71010, Lukut, Port Dickson in 2001. At that time his business was producing five types of drinks and employed 12 assistants. In running the business, he had weekly meetings with all his assistants. He instilled "we can" a motto in his assistants. He told them all problems can be solved with creative thinking, action and collaboration not only among themselves but also with other people such as suppliers, customers and government officials. He laid out his vision for the company to export its products to the Middle East of Asia and to become the leading producer of non flavored drinks in Malaysia. These messages were constantly reinforced in weekly meetings.

Build a Receptive, Open and "Without Fear" Culture

People are anxious about change. Change is uncomfortable. Change implies there will be winners and losers. It is natural that people will prefer to stay within their comfort zones rather than risk embarrassing or costly failures. Entrepreneurs should spend time with people encouraging them to undertake risks and reassuring them that those risks are necessary and worth taking. Fear of failure often inhibits people from pushing themselves to new limits. However, doing nothing has its risks too; staying in the corporate comfort zone is a dangerous option. Entrepreneurs should reassure their employees that they will not be punished for taking risks on worthwhile or bold initiatives that do not succeed. Of course taking risks means taking calculated risks and not wild risks. Every employee, who is undertaking a risky initiative, needs freedom and also mentoring and guidance. Again communication is the key. Informed people do not fear change.

Ghazirah Hashim opened a cake house in Ampangan, Seremban in 1995. She employs 15 workers in the business. She mixes freely with all her workers and calls them by name. She frequently encourages her assistants to tell her any mistakes that she has made so that she can understand and correct herself. This is a departure from the existing Malay cultural norm to not pinpoint the boss's or supervisor's mistakes. She also encouraged her workers to try new cake recipes in the market and not to be afraid to make mistakes. She constantly tells her workers it is not wrong to make a first mistake, but it is wrong to repeat the same mistake made without benefiting or learning from prior mistakes.

Empowering the Employee

Change cannot be delivered by one person. It should be done by the people in the whole organization – the creativity needed for innovation is in the team within the organization. In order to transform them into individuals possessing the entrepreneurial spirit that searches for new opportunities, it is important to empower them. The purpose of empowering people is to enable them to achieve the change through their own efforts. They need clear objectives so that they know what is expected of them. They need to develop the skills for the task. They need to work in cross-departmental teams so that they can create and implement solutions that will work across the organization. They need freedom to succeed. They also need to be given the freedom to fail. People want to understand and agree with what is expected of them. The scope of their freedom and their

responsibility must be agreed upon. They need training, reinforcement and encouragement. They need support in acquiring creative problem-solving skills and encouragement to be brave enough to come up with radical innovations. Above all, empowerment means trusting people. It is by giving them trust, support and belief that people are empowered to achieve great things.

In running the business Yaakob bin Hussin (YBH Food Sdn Bhd) faces lots of problems especially in obtaining cash sales. He already sells his products to the hypermarkets and supermarkets in Malaysia as well as other small retail outlets. In the hypermarkets and supermarkets, he faces problems because when he put the products on display, he receives payment only two months after they are sold. On top of that he has to pay a certain amount of fees prior to receiving payment for goods sold and this creates cashflow problems. In order to overcome this problem he empowered his employees to discuss marketing opportunities with the Ministry of Education and respective schools in Melaka, Negeri Sembilan and Selangor. Owing to this empowerment policy, YBH was able to get an endorsement from the Ministry of Education allowing it to sell its products to every school and giving a certain portion of its sales to the respective schools concerned. In doing this, YBH was able to generate cash sales and minimize problems incurred by cash sales.

Goal Setting and Deadlines

Goal setting is a formal process of deciding what the enterprise wants to achieve. It provides long-term vision, short-term motivation, and helps to focus on the acquisition of knowledge and organize the resources. By setting clearly defined goals, employees can take pride and raise their confidence through the achievement of these.

Haji Manggar, principal owner of Heritage Drinks Industrious Sdn. Bhd. (HDI) is projected to have sales of RM 30 million in 2004. In 2002, its sale was RM 12.3 million. In 2004 it produced 840,000 tins of Heritage drinks per month. This is 10% of the production capacity.

In order to increase the production, HDI must weigh numerous factors. HDI is producing three types of drinks, Tongkat Ali Herbal Drink, Kacip Fatimah Herbal Drink and Tongkat Ali Diet Herbal Drink. Tongkat Ali or Eurocoma Longifolio Jack is derived from plants and is very popular due to its aphrodisiacs functions. It is often called the Malaysian Tonic. Kacip Fatimah or Labisia Pumila Benth is also from plants and popularly used as a traditional medicine given to women after childbirth. At the moment HDI is selling RM 2.90 per tin.

HDI has formed a committee to find solutions to increase its productions and sales. HDI conducted a SWOT (Strength, Weaknesses, Threat and Opportunity) analysis of its business. HDI has a big advantage because it has received International Awards namely, the "New Millenium Award Paris 2000 France" and the "International Quality Summit Award New York 2001". The awards present HDI as an internationally recognized quality product. At the time of writing, HDI is sold to 12,000 retailers in Malaysia out of 120,000 retailers. It has since realized the untapped opportunities in the market. However, HDI experiences a lot of competition. The niche market that HDI is in the "energy and health drinks" market segment. In Malaysia this market amounts to RM 100 million a year. Competition comes not only from the local entrepreneurs but also from the international companies.

In addressing these findings, HDI is developing additional products. It is now adding canned drinks with flavors such as strawberry and orange. It now concentrates its efforts in exporting these drinks to the Middle East. In its promotion program it replaced

the older actor with a younger one to attract the younger age group of 18 to 30 years. Furthermore it intends to reduce the price of each drink to RM 2.50 to boost sales.

Use Creative Techniques to Generate a Large Number of Ideas

Every one of us can be creative if we are encouraged and shown how to do it. We were all imaginative as children but gradually most people have their creative instincts restrained by the routine of work. With proper training, people can develop skills in asking questioning and selecting ideas. They can be the innovative engine that the organization needs.

The process of finding creative solutions is something that can be built into the culture of an organization. This is done by techniques, methods, workshops and a pervading attitude of encouraging crazy ideas.

The goal is to change the organization: to achieve a metamorphosis from a routine group of people doing a job to a highly energized team of entrepreneurs, who are constantly searching for new and better ways of transforming vision to reality. The aim is use creative techniques to develop innovative solutions to achieve the goal. But merely encouraging innovation is not enough. There is a need to initiate programs that show people how they can use creative techniques. People need training in order to learn the skills and to develop the confidence to try new methods.

Musa bin Jeb has operated the Sembilan Resource Management Sdn. Bhd. since 1998. He rented a former resort for RM 50,000 a month and changed it into a training center. His average expenses per month is around RM 130,000. It is very trying for him to sustain in the business because he cannot depend on walk-in customers. He has to get the multinational companies and the government agencies to conduct their staff training and entrepreneurial development program at his center. He makes sure his employees address all his customers "Sir/Madam". He or his staff personally buys supper for all the organizers of the programs. He encouraged his staff to attend seminars, workshops and courses in order to broaden their knowledge. In doing so he feels his employees will be better equip to develop skills in questioning, brainstorming, adapting, combining, analyzing and coaxing customers. From the feedback given by his staff, he is now able to diversify and operate a garment shop.

Involve Customers in Business Improvement

Customers play an important role in formulating and strengthening a business organization. The goal is to identify ideas, problems and solutions for new products, services, and processes. The customers are the users of the end-products. Their needs and wants should be addressed. It is important to involve customers in generating ideas as well as focusing on their needs.

Anifa Entreprise Sdn. Bhd. (Anifa) is a family business, established in 1996 and located in Jalan Bongek Tengah, 71,300, Chengkau, Rembau. It was started by Anifa and had 6 employees in the beginning. Currently, it manufactures 5 types of bottled sauce. ASB used to receive a large number of returned sauce bottles from its vendors. ASB sought to understand why those sauce bottles were being returned by the customers. It conducted a survey and found that customer tastes differed by region. Those staying in the eastern part of Peninsular Malaysia such as Trengganu and Kelantan preferred a sweeter sauce taste. Customers in the southern part of Peninsular Malaysia such as Johore, Melaka and Negeri Sembilan, preferred a hotter sauce taste. On discovering these taste preferences as the cause of the returned bottles, Anifa changed its supply of sauce in accordance to the preferences of each region.

Cooperate with Suppliers

Suppliers can be key partners in the idea-creation process, but many organizations are reluctant to share information with suppliers fearing they might be partners with their competitors. Other obstacles to cooperation include cultural differences, lack of cooperation, lack of resources, and lack of vision – leading to an inability to conceptualize new opportunities.

Abu Motors Sdn. Bhd. began operations in 1996. By 2004 the company opened a new branch at Taman Markosa, Seremban, Negeri Sembilan. It sells and repairs motor cycles. Apart from Malay, Abu can speak fluent Chinese. In executing the business, he receives considerable cooperation from suppliers even though they are of a different race. These suppliers are friendly to him because he is able to relate to them in Chinese which he acquired during his primary school education in a Chinese school. They have been helpful in giving him many advantages such as payment through consignment, rescheduling late payments etc. His suppliers are also ever ready to supply vehicles to him compared to his other competitors who frequently face stock outages and irregular delivery.

Networking through Business Associations

Entrepreneurs need information. They need to build good relations with relevant authorities so that they can make better decisions in their business undertakings.

Yaakob bin Hussin of YBH Food Sdn. Bhd. is the Vice President of the Malay Chamber of Commerce Association, Negeri Sembilan. In that appointment he has access to other members of the association. Since becoming Vice President, he has attended courses and mingled with the Malaysian Minister of Entrepreneurial Development, other VIPs and entrepreneurs. Through the interactions at networking sessions he learnt of another source for raw materials from India which is cheaper and of better quality than local sources.

Support of Government

The government of Malaysia has created a government ministry specializing in promoting and developing entrepreneurs. Funds are made available to entrepreneurs. MARA, for example, has the objective to encourage, advise, train and help the Bumiputra to participate actively in the activities of small and medium scale industry and commerce.

MARA implemented the Entrepreneurial Program, the Business Financing Program and the Development of Business Infrastructure Program to help Bumiputra entrepreneurs. The Entrepreneurial Programs implemented in 2003 are as shown in Table 1 below:

Program	No. Entrepreneurs	Amount (RM)
Entrepreneurial Training	7,317	2,798,022
Consultancy Services	813	652,377
Apprentice Training	2,427	1,190,571
Marketing Promotions	131	100,390
Technical Entrepreneur	1,707	1,367,202
Furniture Technology & Resource Centre	349	252,164
Total	12.744	6.360.726

Table 1: Entrepreneurial Programs Conducted in 2003

The Business Financing Program provides financing facilities to assist Bumiputra entrepreneurs who wish to start a business venture, improve their businesses or upgrade

their entrepreneurship level in commerce as well as in the small and medium scale industry sector. The number of entrepreneurs who received this business financing facilities and the amount approved is shown in Table 2 below:

Table 2: Business Financing Program in 2003

Sector	No. Entrepreneurs	Amount (RM)
Wholesale	1,854	103,167,700
Trading	1,581	27,734,000
Services	1,162	23,252,000
Manufacturing	208	4,705,000
Transportation	69	2,995,000
Total	4,874	161,854,538

The Development of Business Infrastructure Program aims to provide business premises and industrial lots for lease to Bumiputra entrepreneurs in order for them to be able to run their businesses at strategic locations. At the end of 2003, the number of projects available for lease by Bumiputra is shown in Table 3 below:

Table 3: Facilities Provided under the Business Infrastructure Program

Types Of Projects	Total Project	Total Units
Arcade	80	2,050
Bazar	83	1,030
Business complex	24	997
Shophouses	76	833
Workshop	19	193
Industrial lot	14	294
Total	333	5,308

Bumiputra entrepreneurs are invited to adopt MARA as their business partner.

Commercialization of Research and Development Products

The government of Malaysia is allocating 0.4% of its GDP to Research and Development (R&D). Under the Sixth Malaysia Plan, it is allocating RM 629 million with the amount increasing to RM 935 million in the seventh Malaysia Plan. The Malaysia Plan is a 5 year Plan. The Seventh Malaysia Plan is from 1996 to 2000. These R&D funds are distributed to various Universities, Higher Public Learning Institutions and public research institutions. The government has set a priority on R&D that can be commercialized. At the National University of Malaysia, R & D projects with potential to be commercialized are put on display.

Abdul Rahman from Reger Tools Sdn Bhd had approached the Research Development Centre, National University of Malaysia and Nik Abdullah Nik Mohamed, a researcher who had founded the product, Fire Locking System. This system is useful usually during fires. In the panic during a fire, an occupant would have problems remembering where the house keys are. In addition, it might take an unnecessarily long time to unlock in the house doors which could fail with the metal components of the lock expanding due to the increased ambient temperature. As a solution to this problem, a door lock activated by a smart material sensor is recommended to unlock the doors when a high

temperature is detected. Reger Tools has entered a memorandum of understanding with the university. The company has successfully applied for a grant from the Ministry of Science, Technology and Innovations for a sum of RM 2 million to upgrade and commercialize the Fire Locking System.

CONCLUSION

The entrepreneurs in Malaysia include their employees, customers, suppliers, the government and retailers as members of their innovation teams.

Dr. Justino R. ArboledaCoco Technologies Corporation

The implementation of the GATT has always been regarded by many businessmen in the Philippines with apprehension. It is a common belief that small rural based enterprises would not survive competition from countries with more efficient and lower production costs, and support from their governments. With good business ideas, innovative marketing, investment in education employee, training, and constant product development, even small rural based companies can compete in a global market.

Editorial Note:

This country paper is a first person account of creative entrepreneurship in the rural sector. The first person voice of the author has been retained because unlike the other papers in this volume the author is the entrepreneur.

INTRODUCTION

You are perhaps wondering why a CEO of a small company would need a doctorate degree in anything. The truth is, I am only an accidental entrepreneur. I was in the academe and was the Dean of the College of Agriculture and concurrently the Vice-President for Planning, of Bicol University, a government university in the South of Manila for ten years.

My university is located in the poorest region in the country. In spite of its proximity to Manila, the national capital and the largest market for all goods and services in the country, the area has remained poor. Being in the academe, I was the head of a poverty study commissioned by the government and Asian Development Bank in 1989-1991. Our study's showed that ignorance on resource development, lack of farming and entrepreneurial skills are the main causes of poverty of farmers in the region. Our university, therefore, with me as its head, has started to develop technologies and skills that will help the farmers develop their resources.

The paper I am presenting is a topic that I am very familiar with because it is based on my experience: a story on how an academic who knew nothing about business, became an entrepreneur.

RURAL DEVELOPMENT AND PRODUCTIVITY CHALLENGES IN THE PHILIPPINES

The region I lived in is almost 70% taken up by coconutcrops. The good thing about coconuts as a crop is that it thrives very well in our area where there is abundant rainfall every year. No other crops would do as well in such an environment. Unfortunately, the income from coconut is only about P1,000 (One Thousand Pesos) per hectare per month. With almost 2.4% per annum population growth in the Philippines, the average land area held by a farmer is down to two hectares per family. This situation leaves almost 70% of the farming population in my area with an average monthly income, derived from farmings of US\$40. To survive, the farmer will have to take on odd jobs in town, send his

children to be maids in Taiwan and other countries, or to take up any work they can find to contribute to their family's survival.

This is the main reason why the economic indicators of our region are very low. The very low productivity of these farmers drags the indicators down. More than 30 years ago, Philippines was ahead of many countries in terms of economic development. Yet it is one of the least economically developed countries in the region today. As the population grew and farms become smaller, the corresponding incomes of farmers decreased without the development of new rural enterprises.

The challenge in developing the farmers in the countryside is they lack the basic skills, and lack of access to opportunities and new ideas to develop their resources:

1. Lack of Formal Education

The Filipino farmers only have an average of five years of formal education. They are literate but have no opportunity to further their education.

2. Lack of Available Technologies to Develop Their Farm

Most of the developed technologies are for rice and corn. There are none or very little village level production technologies applicable to the coconut farming system.

3. Lack of Land Resources and Capital

Most of the farmers do not have land or cannot avail themselves of the loans from formal lending institutions. The requirements are not simple to comply with, even in government banks. Most commercial banks only exist in the countryside to collect deposits to fund lending in the industries in the cities. This further decreases the flow of money in the rural areas.

4. Lack of Organizational, Technical and Entrepreneurial Skills

There are very few farmer cooperatives that have succeeded in the Philippines. Many do not have the entrepreneurial and organizational skills necessary to start a manufacturing operation or any business except farming.

Rightly or wrongly, my grandparents, and uncles who were revolutionists and nationalists, blamed the lack of entrepreneurship and lack of organizational skills on our colonial educational system. They said that in the installation of our educational system, the Spanish and the Americans simply wanted literate but obedient and controlled subjects. They never wanted to educate future business competitors.

DIFFICULTIES OF STARTING A PIONEERING RURAL ENTERPRISE

To aid the development of the coconut farming system, it has been the focus of our university, under my leadership, to develop rural based enterprises. One such project involved developing technologies to process waste coconut husks into coconut fiber erosion control materials and coir dust as a soil conditioning agent. Coconut husk is one of the biggest item of farm waste in the Philippines. About 12 billion coconut husks or about 6 billion kilograms are burned in the farm each year. Until now, I keep on wondering why we have not done this sooner.

With the funding support of IDRC (International Development Research Center of Canada), I was able to start a small project developing rural-based manufacturing

technologies to produce cocofiber products for erosion control. Unfortunately, like many other technologies developed in the university, there were no adopters of the technology. I was very frustrated and people were even distrustful of technologies coming from the universities. They said that members of the academe would not even invest a single penny of their own money in the technologies they have developed. I understood the situation, but it made me so frustrated that I decided to quit the university and engage in the business myself just to prove it is viable. I did not want the results of the research activity to gather dust in our library shelves. Many other technologies developed in the university suffer this fate for the following reasons:

1. Fear of Venturing into New Enterprises (Lack of Entrepreneurial Spirit)

Perhaps because of the lack of capital resources, people are afraid to risk their lifesavings in an uncertain venture. The lack of tolerance for failure, which usually devastate family resources, makes venturing into a new business, however seemingly attractive, difficult.

2. Lack of Venture Capital or Government Assistance for New Businesses

It is difficult to start a business through borrowing without real estate collateral, which academics like me do not have. Business is so difficult now that banks do not even lend money on chattel mortgage of unusual machineries. Venture capital does not exist in the Philippines and it is futile to seek financial assistance from the government.

3. High Cost of Informal Sources of Financing

Therefore new rural entrepreneurs like me had to rely on the high cost of borrowing from informal sources of financing, friends and relatives. Some of the money I borrowed had interest rates of 25% per year or even higher.

I therefore had to use my wife's life savings, which was then only about US\$2,000. But of course the cost to me is to be good and obedient to my wife for many years. Borrowings from my brothers and sisters, also have many social costs for me. They eventually became stockholders in our company and I have to deal with listening to all their ideas and suggestions on how the company should grow.

4. Lower Social Status of Small Entrepreneurs

Of course my wife was worried about our future when I left the university. On top of that I had to borrow all her savings to venture into a business she did not understand. What she probably found hardest to cope with was the drop in my social status: from being the dean and vice president of a major government university in the country, to a small businessman, just like the small shop-keeper near our house, selling many small items.

In a country where success is equivalent to being employed in a top American corporation or being a high level official in the government, being self employed is only for the non-achievers who could not be employed elsewhere and have no alternative things to do in life.

People came to talk to my wife to dissuade me from leaving a very promising academic career for an uncertain future in gathering farm waste. Everybody I knew thought I hade gone crazy.

For quite a while, I really thought that I made very hasty decision quitting the university. I had no choice but to burn my bridges so that I could really face up to the challenge of managing a new enterprise, which proved to be exciting but very difficult and totally different from the world I was used to.

MARKETING CHALLENGES

One of the disappointing realizations of academics or a technical person like me who goes into business is that 90% of my time has to be devoted to a job we hate most: selling and dealing directly with customers.

1. Seasonality of Export Market

We initially sold our fibers to small local furniture manufacturers, but the volume was not big so we decided to look for export destinations. In one of my trips to Europe as a consultant to GTZ, I requested the Philippine Embassy to look for a possible user of coconut fiber in Germany. I found a small company using jute and other plant materials for erosion control but was willing to develop products from coconut fiber. The product development was successful and it became easy to market the products to Japan and the United States as well. All we had to say to the Japanese was that the Germans are using it and to the Americans, that the Germans and the Japanese are using our products.

The difficulty with exporting our products is that they are linked to the planting and landscaping season, usually during autumn and spring. We have limits to our inventory, and after one export season, our factories have to slow down production in anticipation of the next export season.

We are trying to even our inventory imbalance by exporting to Australia and New Zealand, which has opposite seasons and by developing the local market.

2. Need for Local Market Development

Initial difficulties were encountered in the Philippines because engineers in the country are not familiar with the method using plants to stabilize the soil. Strategies were developed for the Philippine market. Through these strategies, our company has grown from initial export sales of 15% in 1996 to 17% in 2003.

a. Bias Against Locally Made Products

It is harder to sell in the Philippines locally made products than exporting to other countries. Filipino customers generally are biased against locally made products because of quality concerns. We have overcome this by informing customers that our products are being used in developed countries and produced brochures showing the foreign use and applications of our products.

b. Collection Difficulties

The problem with selling to local customers in the Philippines is the delay in payments. Customers usually delay their payments until they can collect from their construction projects. Although we can compensate this by increasing our prices to cover our financing costs, this remains to be our biggest problem with the local sales. Our capital is tied up with a large collectible account from the customers.

3. Providing Quality Service

The local construction industry in the Philippines is limited to a few of companies. Although they compete with each other, each company tries to learn from the experience of other companies. We see to it that we provide very good service to our customers and that it is to their satisfaction. Gradually, even without advertising, we are becoming known in the construction industry as the company to consult for erosion problems. In 2004, most of our jobs are repeat orders from old customers for their new projects.

4. Creating a Marketing "Story"

In order for potential companies to remember us, we highlight the fact that we are employing thousands of poor families who earn their living making erosion control nets. We also add the fact that the waste coconut husks are used instead of being burned and contributing to the pollution of the environment.

Many of our customers are big land developers who also have programs to help the poor and reduce poverty. Using this story to touch the sensitivities of our customers gives us an edge. All things being equal, we usually get more erosion control projects over other construction methods on the basis of the customers' desire to help the poor.

5. Lobbying for Government Support

As the company grew, it became confident in handling larger projects. When it comes to construction projects, the government is the biggest customer in the country. Convincing the government to use our materials as a means to reduce poverty in the coconut areas took us two years. Finally in September 2003, the government issued a Memorandum Circular to all government agencies including the Department of Public Works and Highways to use coconut fiber products as erosion control material in the country.

6. Personal Touch of the Chief Executive

In whatever marketing efforts, it is still the chief executive of the company who is the top salesman. Constant contact with the customer by the chief executive makes the customer feel important and the relationship continues with the customer even overlooking certain mistakes made by our company because we keep in touch. This customer relationship maintenance however, takes so much of my time that my wife already regrets that she ever lent me the money to start the company.

INCREASING PRODUCTIVITY IN A RURAL SETTING

My company was established as a poverty alleviation project. As such, there was a focus on the employment of farmers. This posed no problem at the start of the company because I was always around to manage things. The situation has however changed when we set up office in the capital city and I had to spend most of my time in managing the sales and services work of the company.

Initial attempts to hire new supervisors and lower level managers from outside did not succeed. Their knowledge of the company is limited and there was resistance from the old employees. A lot of work had to be done to introduce management skills to existing workers who have very low skills level. The educational profile of the workers is as follows in Table 1 below:

No. of years Factory Household Category subcontract worker Six years or less 11% 68% Elementary High school Ten years or less 86% 30% Collegiate Fourteen years or less 3% 2%

Table 1: Formal Educational Attainment of Juboken Enterprises Workers

As can be seen on the table, the company employs the poorer sector of the society with low formal education and low level of work skills. It is therefore a challenge to increase their production output without close supervision.

Our company however faced two situations, which necessitated improvements in the production of the company:

- 1. Higher demand for more production and lower prices;
- 2. More time for the management to focus on marketing; and
- 3. Need to develop management skills among present workers

Our company took the following steps:

1. Invest in Employee Productivity Training Programs Conducted by Government Agencies

These training programs are usually free of charge and are good eye openers for the employees. Not only do they get a new perspective of their work, workers, who have undergone training, usually have higher self-confidence and selfrespect.

2. Conduct of Field Trips to Other Companies

Field trips permit the employees relax and also provide an opportunity to compare the advantages and disadvantages of the company.

3. Provision of Skills Training to Enable the Employees to do Multiple Tasks

This provides employees with other skills e.g. electrician, welder ettc. Their salaries increase if they are multi-skilled, and the company benefits by saving on the costs of hiring another worker.

4. Improved the Production Recording System to Identify Group Outputs

This system identifies the output of each group and comparative analysis can be done on the performance of each group.

5. Set Production Targets

As demand for our products increases, delivery deadlines and production targets have to be met. Increased production is achieved as much as possible without increase in number of employees or resources. The management and workers both agree on this target.

6. Established Incentive Systems for Production

If production targets are met, group incentives such as additional one-month salary are provided for. Last year, our workers received additional two months salary for meeting their production targets.

7. Conduct Weekend Meetings to Check Performance, Discuss and Solve Problems

These meetings have become very important in monitoring the performance of the workers, and jointly solving problems and issues arising from the efforts to meet production targets.

To free ourselves from spending too much time in production activities and to concentrate on marketing, we had to do the following:

- 1. Give our employees our full trust and confidence
- 2. Give our employees authority to make production decisions
- 3. Give our employees high tolerance to mistakes and praises for a job well done
- 4. Give our employees the necessary moral support and the budget they need

As a result of what we have done, we have almost doubled our production and sales in the past three years without a corresponding increase in labor and production costs.

We have also experienced the following benefits:

- 1. Less direct supervision and more senior management time to sales activities
- 2. Less conflicts in the production floor
- 3. Higher compensation to employees
- 4. Larger employee contribution to the company activities

KEEPING AHEAD

Although a pioneer in the coco fiber erosion control business in the Philippines, we still have to keep ahead of our competitors by doing the following:

1. Providing Specialized Services for Customers

Using coconut fiber erosion control materials in combination with plants to protect construction areas from soil erosion is a technology new to many companies and government agencies. Our company assists customers in the design and installation of these products. Other companies are not capable of

providing these services. We therefore have a very great edge and dominate the erosion control market in the Philippines.

2. Forming the Best Sales and Services Team

If in the factory we have to contend with employees who had low skills level, our sales and engineering services office in Manila have to have the best people we can afford. With the economic crisis in the country, it was not very difficult to hire top graduates.

3. Investment in Product Development

Constantly studying the customer's needs through consultation is necessary to develop new products.

4. Quality Assurance and Guarantees to Customers

Our company assures the customers the best quality goods and services. To prove this, we provide one-year warranty for our work. No other company in the Philippines does this. Through this move, we gained and enjoy the trust of the clients.

CONCLUSION

With the implementation of the GATT, many in the Philippines fear that small enterprises in our country would be wiped out of the competition due to the lower labor and production costs in other countries.

Our experience in our company shows that with a good business idea, investment in product development, innovative marketing, and investment in training of employees, even rural-based companies in the Philippines can compete in a global market.

Dr. Aloysius Tay Ban Hock

Formerly Association of Small and Medium Enterprises

"The creation of something new is not accomplished by the intellect but by the play instinct acting from inner necessity. The creative mind plays with the objects it loves."

On this note, I thank you for being a wonderful audience and hope you will be able to take away with you some key insights on creative entrepreneurship.

INTRODUCTION

The rapid spread of general-purpose technology, particularly information and communication technology (ICT), is changing work organization practices, production processes and the relationships between consumers and producers.

Singapore was ranked the sixth most technologically sophisticated country in the world and ranked fifth in the world for "firm-level technology absorption" by the Growth Competitiveness Report (World Economic Forum, 2004). This indicates that Singapore firms are aggressively absorbing new technologies to enhance business growth and competitiveness, and are employing increasingly sophisticated technologies in the industries. Singapore also showed significant increase in its ranking on the Technology Index of the Growth Competitiveness report between 2002 and 2003.

By adopting new technologies or changing current technologies and processes, it is a strategic and deliberate attempt by businesses to propel themselves to new levels on the economic playing field. To rise above the competition, companies in Singapore will not only need to compete within the country but also with regional and international players.

In this paper, four local companies are highlighted for their adoption of technology to stay above the competition. It should be noted that three cases discussed here are companies who have adopted process innovation and not product innovation. All firms are significant players in their respective fields in the Singapore SME sector. The case examples are followed by a section or the Singapore government's initiatives to support enterprise innovation.

Table 1: Global Competitiveness Report 2003-2004: Singapore's Performance on Technology Index

(Source: http://www.spring.gov.sg/portal/stats/productivity/ssect1 112.html)

Indices	· · · · · · · · · · · · · · · · · · ·		ngapore ing) & Score	
muces	2003	2003	2002 (original)	
TECHNOLOGY INDEX Measures the elements of innovation linked to economic growth, diffusion of technology, and information and communications technology (ICT).	United States 6.3	(12) 5.09	(17) 4.89	

Table 1 (Cont'd)			
Innovation sub-index	United States 6.44	(15) 4.04	(20) 3.76
Technological sophistication Country's position in technology among those of the world leaders	Finland 6.6	(6) 5.8	(9) 5.6
Firm-level technology absorption Companies in one's country are aggressive in absorbing new technology	Finland 6.4	(5) 6.1	-
Company spending on research & development Companies in one's country spend heavily on R&D relative to international peers	United States 5.9	(10) 4.8	(16) 4.6
University/industry research collaboration Business collaboration with local universities in its R&D activity is intensive and ongoing	Finland 5.9	(3) 5.3	(9) 5.0
Utility patents US patents for invention granted per million population, 2002	United States 301.48	(10) 97.62	(14) 72.12
Information and communication technology (ICT) sub-index	Iceland 6.32	(6) 6.14	(5) 6.02

SCIENCE ARTS CO. PTE LTD -TRADITIONAL CHINESE MEDICINE

Science Arts Co. Pte. Ltd. ("Science Arts"), a traditional Chinese medicine company stepped out of its comfort zone to embrace technology in order to stay ahead of its competition. The small, but fast-growing company has successfully merged a traditional business with an untraditional way of doing business.

This importer and processor of Chinese traditional herbal medicines in Singapore and Southeast Asia has a widespread network of retailers. The operation is no small undertaking. Science Arts carries a catalogue of more than 2,000 different products, and annual sales of more than US\$6 million.

The Science Arts sales force had been facing dissatisfied clients when it came to taking orders. It would normally require 48 hours from time of order to delivery. Occasionally, a wrong order may turn up due to misinterpretation of the sales order because of the sales representative bad handwriting. Hence, with the feedback from the sales force and clients, the management and staff of Science Arts brainstormed to resolve the problem. With the assistance of a IT solutions provider, Silk Technology, Science Arts decided to equip all of its Singapore sales representatives with the HP Jornada 568s, a pocket PC, which allows the company to track customers and record product orders. Linked to mobile phones, the device taps into a backend system that features an HP LC 2000 server networked to five HP Vectra model desktop computers for processing transactions and two other HP PCs used to ring retail sales record .

The Pocket PCs have proven to be a boon to their business where the sales representatives can transmit orders back to the home office anytime, anywhere, greatly shortening the sales cycle. This allows them to spend more time selling new products to their customers. The pocket PC is equipped with smart features which has the ability to predict and understand the customer's preference. As a result, Science Arts enhances customer loyalty by providing the right products in the right place, at the right time to the right customers. Science Arts earns itself a favorable reputation amongst its customers for efficient and punctual inventory replenishment.

Science Arts' Managing Director, Mr. Tan Lee Huak estimated that he has achieved a 30% increase in new businesses. The sales representatives can now call on 13 customers instead of 10 each day as they are more efficient now. Mr. Tan noted the integration of external sales to back-end accounting and distribution operations eliminates human error, especially in data entry. The new mobile sales force solution also reduces the inevitable conflicts between the field staff and the back-office logistics staff.

As a result of harnessing technology, the company has been able to trim overheads by reducing paperwork, human capital and unnecessary trips to client's retail outlets arising from wrong orders. The results have been satisfactory to the company such that it now plans to expand its business by examining the possibility of pursuing new overseas markets.

Five years ago, the company was anxious to reduce costs and increase productivity after fighting against a severe slowdown in the regional economy. Managers struggled to keep inventory in line with declining sales – a difficult task to accomplish without computerization and management's swift adoption of creativity and innovation.

COLOURS BY THE BAY TRENDS - FOOD & BEVERAGE

Food & beverage (F&B) operators are rapidly integrating new technologies into their businesses and reaping the resultant benefits of higher productivity. Nooch, a "noodle bar", is one of the first restaurants in Singapore to embrace information technology. The management and staff deliberated on a solution that will improve the overall customer dining experience. The central objective was to capture customer loyalty and increase market share through overall customer satisfaction. Hence, the Personal Digital Assistant (PDA) was employed to do the job. The waiter keys in the order into the PDA and this information automatically registers on a computer located in the kitchen. This system allows staff to devote more attention to serving diners. Food usually arrives 10 minutes after the order is taken. Billing is made more efficient too. Any changes made to the order is reflected instantly at the cashier, hence eliminating billing errors. Furthermore, with the assistance of intelligent backend material management systems restaurant owners will have better control over stock reordering. On top of that, greater financial security is guaranteed, as unreported sales will be a thing of the past.

"Colours By The Bay", a restaurant group comprising seven different outlets, is one F&B operator who has taken the concept to a higher level. By adopting a cluster approach, seven F&B operators are banded and set up their outlets at a common location; offering different dining concepts in a common location, sharing resources such as advertising and promotions, and leveraging on a common technology infrastructure - Wireless Point-Of-Sale – to minimize cost and improve productivity and efficiency.

This initiative has also proved to be a success - increasing workers' efficiencies and boosting sales They provided an excellent example of how SMEs can work together to enjoy economies of scale. "Colours By The Bay" introduced a wireless cross-ordering

system. For the first time, diners have the choice of ordering from any of seven eateries, regardless of where they are seated. The orders will be sent directly to the respective restaurants' F&B counters, kitchens and point-of-sale systems. This cross ordering is made possible through the use of wireless networking and handheld PDA technologies that span floor area of 2,415 square metres.

On top of this, the system can cross-bill the restaurants and a customer can ask for his bill to show which outlet he has ordered from. "Colours of the Bay" has taken an innovative approach of combining interesting F&B concepts with wireless technologies, to enhance customer service and operational efficiency.

THE CRESCENDAS GROUP – CRESCENDAS MEDICAL PTE LTD MEDICAL SECTOR

The Crescendas Group is a dynamic and diversified group of businesses with operations and facilities in Singapore, Malaysia, China, Myanmar and Laos. With a track record of more than 20 years and staff strength of more than 1,000 employees, the Crescendas Group's business portfolio can be grouped into the following business divisions:

- Property;
- Building;
- Leisure;
- Electronics:
- Distribution;
- Medical.

The group started their business in 1982 in the transport and distribution business. Today, Mr. Lawrence Leow, Executive Chairman of the Group, has not only established the abovementioned businesses, he was also added a medical portfolio. Crescendas Medical will soon launch their first dialysis machine on the market. This will be the first of such machines that are manufactured by a company in Southeast Asian region. Mr. Leow explained that he has assembled a good R&D team and by learning from the Germans, his team managed to adopt the German's technology and assemble a locally-made dialysis machine.

With the willingness to adopt technologies and the commitment of the teams at The Crescendas Group, the company is able to stay ahead of the competition. As this product has not been launched, specific details cannot be provided.

NATURAL COOL AIR-CONDITIONING AND ENGINEERING PTE LTD – RETAIL IN AIR-CONDITIONING, MOBILE AIR-CONDITIONERS SHOWROOM

Buying an air-conditioner is now more convenient than ever. Natural Cool - one of Singapore's leading company in air-conditioners retail sales and servicing, introduced its unique Cool Mobile showroom, that brings its air-conditioners right to work/renovation sites and residential properties. This innovative idea has made the purchase of air-conditioners more convenient as potential buyers can view different models of the product and receive professional advice about it at their doorstep. A wide range of well-known

brands which buyers can choose from are available on-site. Customers simply call a hotline and Natural Cool will send its mobile air-conditioner showroom to any place in Singapore.

This idea was conceptualized in the boardroom when the company responded to salesmen's feedback on customers' complaints about the opening hours of its retail outlets – the customers said that the stores were opening late and for too short a period. The board then decided to bring the showroom to the customers at a time as requested by them instead. The company acted to meet the needs of people of who often complain of their lack of time.

The investment made to implement this creative sales idea is minimal. The only new requirement was a van that was modified to showcase the various models of airconditioners. A licence was obtained from the Land Transport Authority of Singapore (LTA) to convert ordinary vans into the required mobile showrooms. Training was conducted for sales personnel who were stationed at the retail stores. Thus these sales personnel are equipped to perform a cross-section of duties, such as being the driver, the salesperson, as well as the site surveyor. The same person would recommend, demonstrate, sell, conduct site viewing and take the necessary measurements.

In conducting a cost and benefit analysis of this innovative idea, the incremental cost is minimal, but the result is an overwhelmingly high rate of sales closure – 90%. Savings are accrued from the reductions in overheads associated with a showroom set-up.

Natural Cool obviously benefited from the exposure that this creative idea brought them. In this instance, the company did not harness new technology to increase productivity, but embraced old technology instead – by using an automobile to improve business.

WHAT THE SINGAPORE GOVERNMENT HAS DONE

It is well recognized that technological innovation lies at the heart of a nation's ability to sustain high rate of economic growth and productivity and to maintain competitiveness in the increasingly knowledge-based global economy.

Government agencies like Standards, Productivity and Innovation Board (SPRING), InfoComm Development Authority (IDA), Economic Development Board (EDB) and International Enterprise Singapore (IES) are working hand in hand with the industry to help SMEs to innovate and adopt technology to remain competitive. It should also be noted that there are numerous other schemes that Multi-national Corporations can tap on. The focus here is on the SME sector where government assistance is greatly needed.

SME21

Small and medium-sized enterprises play a critical role in Singapore's economic development. SPRING is the lead agency for upgrading SMEs and transforming the domestic sector for higher productivity. A major initiative in the SME21 strategic plan is to provide assistance to accelerate the development of growing companies. The target is to have 6,000 SMEs achieve annual sales of \$10 million by 2008. This means that one in 15 SMEs would have the potential to become a large company. To date, 3,630 SMEs have successfully grown to this level.

GET-UP Scheme

To boost the global competitiveness of technology-intensive enterprises, the Growing Enterprises with Technology Upgrading (GET-UP) program was launched in February 2003. A multi-agency initiative of the Economic Development Board, SPRING, IE Singapore and A*STAR, GET-UP facilitated the placement of research scientists and engineers from A*STAR's research institutes in local enterprises.

PATH Scheme

Administered by IDA, Pilot and Trial Hotspots or **PATH**, first introduced in May 2001, is an industry development initiative that accelerates the development of innovative infocomm infrastructure, applications and products. It does this by supporting the trial and pilot of emerging infocomm technologies and best-of-breed services. To be entitled to PATH, the company must be able to display the following:

- Involve the innovative use of wireless technologies in one or more of these areas: mobile commerce, location-based services, wireless multimedia and messaging, wireless enterprise and machine-to-machine communications;
- Be conducted in Singapore, unless otherwise justified; and
- Demonstrate significant levels of contribution to new capabilities within the company and/or industry.

LEFS and LETAS Schemes

SPRING administers two government schemes to help SMEs upgrade, modernize and expand their operations. They are the Local Enterprise Finance Scheme (LEFS) and Local Enterprise Technical Assistance Scheme (LETAS).

LEFS offers fixed interest rate loans through 18 financial institutions. This arrangement allows the government to tap the participating financial institutions' (PFIs) specialized banking and credit evaluation expertise in assessing loans, ensuring that LEFS loans undergo similar rigours of credit evaluation. At the same time, with the government sharing the risk, these PFIs are more prepared to lend to SMEs.

Under LETAS, assistance is given to enable SMEs to defray the cost of engaging external expertise for operational upgrading and strengthening in-house capabilities to improve productivity. The number of applications and value of assistance approved in FY2002 totalled 4,889 and amounted to \$83 million respectively. This was a 24% increase in the number of applications and a 15% rise in the value, compared with FY2001.

The government extended the enhancements to LEFS and LETAS to 30 June 2003. The enhancements were first announced as part of a package of off-budget measures in July and October 2001 to help local enterprises cope with the difficult economic conditions. Larger local enterprises, with a fixed asset investment not exceeding \$50 million and with employment size not exceeding 300 employees. If they are in the service sectors, continued to have access to short-term working capital financing.

In January 2003, LEFS and LETAS support was extended to publicly-listed SMEs, which are at least 30% locally-owned, with group fixed asset investment of not more than \$15 million and group employment size of not more than 200 workers for service companies. The government recognized that these companies may still need help as they often lack the expertise to boost their capabilities in order to be better positioned to expand and venture into foreign markets.

The Singapore Government has done all they can to encourage local enterprises to adopt technology to enhance their businesses and to remain competitive. It has introduced numerous financial and R&D assistance to enable many companies to benefit from these

schemes. However, one major factor that can still be improved is the ease and accessibility of such schemes by smaller players in the market. These companies still do not know about such schemes that are available for their growth. This can be attributed to lack of knowledge or lack of know-how to tap on these resources. Thus, a more aggressive drive should be launched to reach out and educate the uninitiated.

CONCLUSION

From the above case-studies, we can see that although these organizations differ in business types, they have the following characteristics in common:

- Strong and clearly expressed shared values
- The companies adopt innovative processes by managing its people, capabilities and product portfolio.
- An appreciation of/for the whole individual and everything s/he can bring to the organization
- Cultures that encourage openness and playfulness
- Celebrate successes, constantly
- A strong, clearly communicated sense of history
- Intense customer focus
- Clear focus on trends
- Cross-functional teams

The role of government support for innovation has been considerable.

To conclude, Singapore's adoption rate for new technology is high and is on the rise. In some case, the adoption of older technology can assist and propel business growth. Hence, it may not necessarily be the adoption of new technology that can enhance growth, but the utilization of the right technology and the creativity of all players in the team, with the openness of management to adopt new and creative ideas that will be the key to business success and thus be on the surf of competition. The ability to tap on government's assistance will greatly enhance the adoption of new and costlier technologies to enhance business growth.

Adrian Lim Meng Yan

The Young Entrepreneur Mastery Limited

INTRODUCTION

The word "entrepreneur", derived from 17th-century French "entreprendre", refers to individuals who were "undertakers", meaning those who "undertook" the risk of new enterprise for profit or loss. The entrepreneur seeks, in Joseph Schumpeter's (an Austrian economist) word, to reform or revolutionize the pattern of production by exploiting an invention or, more generally, an untried technological possibility to produce a new commodity or produce an old one in a new way, by opening up a new source of supply of materials or a new outlet for products. Entrepreneurship, as defined, essentially consists of doing things that are not generally done in the ordinary course of business routine.

The concept of entrepreneurship can be regarded as a *path of creation*. An ongoing process with ideas, actions, creations and interactions which culminate as outcomes, e.g. an enterprise, a product, or a piece of art. Entrepreneurs pursue ideas through a creative process whereby imaginative people germinate ideas, nurture them, and develop them successfully.

To put it simply, creative entrepreneurship is therefore a process where the entrepreneur undertakes the risk of a new venture by pursuing new ideas to bring something new into existence, to set up an enterprise or to find a better way to develop a project.

Internationalization, as the term denotes, is to develop and expand the local enterprise beyond its domestic shores. With the explosion of the technology and information that is readily available through the Internet, the international market is an inevitable progress that a creative enterprise must undertake, particularly in the context of Singapore which is constrained by a small domestic market.

Singapore's then-Prime Minister Goh Chok Tong recognized the need for Singapore business to venture abroad as up to now Singapore's growth has primarily been investment driven. There are a host of reasons for internationalization given Singapore's limited size and resources, which have led to an increasingly high cost structure and a small domestic market. At the same time, expanding abroad would mean an opportunity to tap into much larger markets, the promise of finding new markets for existing products and generating new demand that was previously unavailable. For manufacturers, it might also be an opportunity to find new sources of supply and labor that will enhance their competitiveness.

In line with the government's call for Singapore businesses to extend their fields beyond the domestic shore, many businesses have taken the initiative to venture abroad. Examples of such business ventures include Osim, BreadTalk and Qian Hu. A brief synopsis of the successes of these companies is provided under Part III of this paper.

ROLE OF PUBLIC POLICY IN INTERNATIONALISATION

Government Initiatives to Build a World-Class Company

The Singapore government recognizes that world-class multi-national corporations will continue to be key driver of Singapore's economic growth and the necessity of

building our own world-class economies to complement our economic growth. Local enterprises should pool resources to achieve synergy and economies of scale, leverage on external expertise to raise professional standards, develop their own brands and products through innovation and technology, and re-engineer their business processes. This is done through the implementation of plans such as Trade 21, Industry 21, Franchise 21 and SME 21. (refer to Annex 1).

Incentives and Assistance Schemes

In Singapore, the government agencies are providing incentives and assistance schemes to local enterprises that have the potential to venture abroad into new markets. Below is a summary of the main government agencies that promote such an endeavor.

LETAS (Local Enterprise Technical Assistance Scheme) from SPRING Singapore assists Singapore Enterprises in improving their productivity. This is a generic scheme under which SMEs can obtain relevant technical assistance offered by management consultants. The SMEs may be reimbursed for up to 50 percent of their costs for engaging management or technical consultants on projects approved by relevant government agencies. SMEs which have projects that meet SPRING's criteria may obtain reimbursement for up to 50 percent for assistance received.

The Economic Development Board (EDB) has an Innovation Development Scheme to encourage and assist Singapore Enterprises in the innovation of products, processes and applications. This will equip the local SMEs and or Large Local Corporations (LLCs) with good support for the innovation of products, processes and applications (refer to Annex 2).

International Enterprise (IE) Singapore's primary focus is to help growth enterprises secure overseas markets, create greater demand for their products and services. IE Singapore has a good number of assistance programs such as International Partners Program, Double Tax Deduction (DTD) for Market Development Scheme, Overseas Manpower Program, Growing Enterprises with Technology Upgrade (GET-Up) and other assistance for enterprises venturing overseas (refer to Annex 3).

To help Singapore infocomm companies tap opportunities in foreign markets, the Infocomm Development Authority of Singapore (IDA) and Singapore infocomm Technology Federation (SiTF) have jointly set up the Singapore Solutions Centre (SSC) in Shanghai. The SSC will serve as a one-stop centre for China companies and agencies that wish to find out more about the technologies, products and services which Singapore infocomm companies can offer. It will also help to identify partnership opportunities for the companies of both countries to work together in deploying innovative IT solutions to meet the growing needs of the China market.

IDA has a few assistance programs such as the Overseas Development Program (ODP), which is a key platform in forging win-win partnerships between Singapore-based infocomm Local Enterprises (iLEs) and leading Singapore Companies/Infocomm Multi-National Corporations (MNCs) (refer to Annex 4).

A*STAR (Agency for Science, Technology and Research), through the T-Up Program, will share talent and help transfer technology to the industry.

Each agency offers assistance to address specific industry needs within the agency's charter. The result is an integrated and coordinated approach to harness all the capabilities of the various schemes and incentives which will help Singapore enterprises grow to be global enterprises by overcoming their financial, human resource and technology constraints.

With the above mentioned agencies, there is a common thread - no agency works independently. The agencies work to synergize their strengths and overcome Singapore's

economic constraints. For instance, the GET-Up (Growing Enterprises with Technology Upgrade) Team comprising of senior staff from A*STAR, EDB, IE Singapore and SPRING Singapore was formed to pro-actively aim to visit 500 selected Singapore Enterprises with growth potential. The GET-Up Team will help to identify and ascertain these Enterprises' difficulties in finance, human resource as well as technology, and utilize various tools from the different agencies to resolve these problems.

The last agency to be mentioned is the Ministry of Trade and Industry (MTI). Its vision is to transform Singapore into a globalized, entrepreneurial and diversified economy, a leading global city for talent, enterprise and innovation. It envisions to achieve by 2018:

- a *globalized economy* where Singapore is the key node in the global network, linked to all the major economies;
- a *creative and entrepreneurial* nation willing to take risks to create fresh businesses and blaze new paths to success; and
- a *diversified* economy powered by the twin engines of manufacturing and services, where vibrant Singapore companies complement MNCs, and new startups co-exist with traditional businesses to exploit new and innovative ideas.

Singapore is a highly trade-dependent economy, with the highest trade to GDP ratio in the world. Not only is the economy heavily reliant on imports as its only source of food, energy and industrial raw materials, its small domestic market also means that its industries must rely on overseas export markets to absorb its outputs. Furthermore, trade activities have historically been and continue to be an important source of economic wealth for the country.

Singapore is therefore a free trader, implementing practically no barriers to the free flow of goods in and out of the country, and a vocal champion of global free trade. The primary objective of its trade policy is to guard its trading interests by ensuring a free and open international trading environment.

This is why Singapore places the highest priority on the multilateral trading system embodied by the World Trade Organization (WTO). Singapore has initiated FTA discussions with a number of our strategic trading partners. The progress of Singapore's FTA efforts as at May 2003 is summarized below.

Concluded

New Zealand Japan
European Free Trade Association Australia
United States

Ongoing

ASEAN & the People's Republic of China

Canada

Hashemite Kingdom of Jordan

Republic of Korea

Pacific Three (New Zealand, Chile, Singapore)

Bahrain

Egypt

India

Mexico

Panama

Sri Lanka

BRIEF SYNOPSIS OF INTERNATIONALISED SINGAPORE ENTERPRISES

OSIM International Ltd.

OSIM was established in 1980 and has grown to become a global leader in healthy lifestyle products.

Over the years, Mr. Ron Sim, founder and CEO of OSIM, has learnt to be more creative and innovative in his company's approach to product enhancements, designs, intellectual property (IP), technologies and concepts. For example, their massage chair has grown from using roller mechanisms to pneumatic ones to the present iSymphonic AV. This new OSIM chair synchronizes audio and visuals with massage.

From its humble beginning in Singapore, OSIM today has over 500 OSIM outlets in 79 cities in 21 countries. OSIM's success-conscious mindset is due to its relentless pursuit to be creative and innovative, and a forerunner in the healthy lifestyle segment. They have identified their core business in 4 main areas:

Table 1: Global network of OSIM outlets

	31 March 2004	31 March 2003
Hong Kong	72	67
Taiwan	60	45
China	136	93
Singapore	72	79
Malaysia	71	58
Global franchise markets	99	61
Total	510	403

Source: From www.listedcompany.com

Table 2: Turnover by geographical operations

Countries	Marc	h 2004	Marc	eh 2003	%
	S\$m	%	S\$m	%	Change
Hong Kong	23.3	34%	19.7	37%	+18%
Taiwan	15.0	22%	9.9	19%	+52%
China	10.6	15%	6.3	12%	+68%
Singapore	8.7	13%	8.2	16%	+6%
Malaysia	6.3	9%	5.9	11%	+7%
Global franchise markets	4.8	7%	2.5	5%	+92%
Total	\$68.7m	100%	\$52.5m	100%	+31%

Source: From www.listedcompany.com

- Health Focus managing your healthy lifestyle
- Hygiene Focus clean environment for your home and office
- Nutrition Focus supplementing your daily nutritional needs for a balanced diet
- Fitness Focus bringing the convenience of fitness to the comfort of your home

OSIM is constantly developing new products to drive sales and also has a strong focus on global expansion. The company aims to add 100 outlets and 2 to 3 new countries to the OSIM empire by end 2004.

Qian Hu Corporation Ltd.

Qian Hu Corporation Ltd. is a leading exporter of ornamental fish. The Singapore homegrown company has played a significant role in helping the country achieve the prestigious status as the world's leading exporter of ornamental fish in the past decade and recognition as the ornamental fish capital of the world. Today, Singapore supplies more than 30% of the world's aquarium fish.

Once a humble pig farming business, Qian Hu has undergone massive transformation to become one of the most diversified local companies – dealing in the business of import and export, farming, breeding, quarantine, wholesale, and distribution of ornamental fish. Qian Hu is uniquely positioned as an integrated ornamental fish service provider, providing a one-stop service point for domestic and international wholesalers, retailers and consumers.

Qian Hu is not just a breeder, distributor or manufacturer. Their business model hinges on 4 core activities:

- Ornamental Fish
- Aquarium & pet accessories
- Export
- Domestic distribution

Qian Hu's successful business model is exportable, expandable and scalable. These are the essential qualities that differentiate them from the rest of the competition in terms of its integrated services, brand, distribution network, manufacturing capabilities, and most importantly, its quality, innovation and service culture throughout the Group.

In his recent company announcement, Mr. Kenny Yap, Managing Director of Qian Hu mentioned that "There is reason to celebrate. Despite the double whammy impact of the "perfect storm", our Group turnover grew 8.0% to \$67.7 million, while net profit attributable to shareholders rose 7.2% to \$7.0 million."

Over the years, the "never say die" and "can-do" attitude has seen Qian Hu grown by leaps and bounds and has become one of our key business strengths. "Creativity sparks the way we run our often-perceived-as-a-traditional, low-technology business - after all, much can still be done to ensure that we safely deliver our ornamental fish all over the world and in the fastest possible way," Kenny Yap, the CEO noted.

Since 2002, Qian Hu has initiated a long-term strategy to build a technology-driven organization that maximizes its business efficiencies across the board, aptly code-named FISH which is an acronym for:

Fish - Fast response in an ever-changing business environment

Intelligent - An innovative, smart organization Strong - Unity amongst key stakeholders

Harmonious - Deriving synergies

Qian Hu recognizes that knowledge is at the core of enterprise value-creation. In the formation of a knowledge company, they have identified the organizational, cultural and technological strands of its knowledge-based business processes and embarked on collaborative practical research that aims to improve enterprise decision-making and maximize value creation. Such collaborative efforts span across and beyond corporate boundaries, and open new avenues for innovation.

In 2004, Qian Hu will pursue an aggressive expansion of a new chain store concept, "Qian Hu – The Pet Family", in Jakarta, Bangkok, Shanghai, Tianjin, Beijing, Penang and Johor Bahru. It plans to expand to more than 100 stores within the next 5 years.

BreadTalk Group Ltd.

BreadTalk was established in 2000 in Singapore and has become one of the top brands in the food and beverage industry. The success of BreadTalk is in the way it radically changed the mindset of people to bring joy and fun in eating bread.

The founder and Group Managing Director, Mr. George Quek has brilliantly revolutionized the culture of bread consumption with its visually appealing, aromatic and unique-tasting products. Furthermore, all its bread have an identity and creative names such as, Crouching Tiger, Hidden Bacon inspired by the Hollywood blockbuster; Mount Fuji inspired by its Japanese master chef; and HotChic, its spicy, sambal-flavoured Chicken Floss bun.

In BreadTalk's website, it mentioned that its international expansion plans are:

China

It currently owns and operates two BreadTalk outlets in Shanghai which are well-received by consumers there. They are targeting to open six more outlets in Shanghai this year, and their first outlet in Beijing by third quarter of 2004.

Indonesia

Sales from the three Jakarta outlets opened in 2003, as well as the fourth outlet opened recently in January 2004, have been strong. The franchisee plans to open 10 more outlets in fiscal year FY2004, including one outlet in Surabaya

Gulf Cooperation Council

The company's franchisee in the GCC, Al-Mejhem Global Group, W.L.L., plans to open its first outlet in Kuwait in the first half of this year. The target is to eventually open up to 30 outlets in the GCC.

Philippines

Their Philippines franchisee plans to open the first BreadTalk outlet in Manila by April 2004, with nine more outlets in the country within the first three years.

Malaysia

ML Breadworks Sdn. Bhd., their franchisee in Malaysia, is also targeting to open 10 outlets in three years, starting in the Klang Valley area, mainly Kuala Lumpur and Selangor areas, followed by the rest of West Malaysia. The first outlet will open in the first half of 2004.

For FY2004, the Group aims to open 10 to 15 outlets in the Philippines, Malaysia, and the GCC. They are also targeting to seal new franchise agreements for three to four more countries, such as Hong Kong SAR, Taiwan, Thailand and Australia.

CONCLUSION

In Singapore, the government plays an active role in supporting and encouraging SMEs and LLCs to venture beyond their comfort zone. The various government agencies are synergies which effectively ensure that the potential of a growing company or

organization to venture abroad is given a chance through the myriad of assistance programs.

As for the SMEs and LLCs, their desire to further expand their business horizon gives them an added challenge. Their innate entrepreneurial trait does not permit them to be satisfied with their present status. Their constant and insatiable desire to move from glory to glory will not only motivate them, but to many others who are modeling their success.

Hence, the government and entrepreneurs in Singapore are constantly challenged to be an alchemist, bringing about a major transformation and ensuring sustainable success for the future.

Annex 1

ASSISTANCE PROGRAMS

The following information is found on

http://www.mti.gov.sg/public/ECD/frm_ECD_Default.asp?sid=25&cid=93

Trade 21

The vision of Trade21 is to make Singapore the Global City of International Trade. It is a masterplan that sets out the challenges, objectives and strategies for Singapore's trade development in the next five years. It presents the key strategies and targets of International Enterprise (IE) Singapore to:

- Internationalize Singapore Enterprises
- Make Singapore the Centre for Global Trade Hub Services
- Secure Global Market Access for Singapore and
- Develop a World Class Trade Facilitation System

Industry 21

The Economic Development Board's Industry 21(I21) blueprint was launched in June 1998. Comprising a set of 6 programs, I21 was designed to promote Singapore's economic growth into the next millennium. It aims to develop Singapore into a leading competence centre for knowledge-driven activities and a hub for the headquarters and product charters of multi-national corporations. The I21 programs include:

- (a) Cluster Development
 - Promote greater diversification among and within the key industry clusters, and also promote knowledge-driven activities across the value-chain of these industries
- (b) Promising Local Enterprises/World-Class Companies
 Build up local world-class companies, and root foreign world-class companies
 in Singapore
- (c) Innovation
 - Promote innovation within companies and encourage them to develop new knowledge-driven capabilities and activities
- (d) International Business
 - Tap into global and regional hubs for capital, new technology, ideas, resources and markets
- (e) Headquarters
 - Attract foreign companies to set up their global headquarters in Singapore
- (f) Resource Development

 Develop a local workforce and attract foreign talent with critical skills necessary to support industry needs into the next millennium

It is envisioned that in the next 10 years, knowledge-driven industries under I21 would contribute 40% of Singapore's annual GDP, and generate employment of 20,000 to 25,000 annually. Two out of three jobs in manufacturing would be for skilled and

knowledge workers, while in the services sector, three jobs out of four would be for skilled and knowledge workers.

Franchise 21

Franchise 21 aims to position Singapore as an International Franchise Capital and promote franchising and economic groupings as strategic tools to help domestic businesses become regional and global players in the new economy. 3 broad strategies and 17 programs will be implemented to expedite the formation of franchises and alliances:

- Branding Singapore as a franchise capital by developing a franchise mark to accredit local franchisors and master franchisees and as a hub for franchises to network and interact
- Developing strong franchisors and master franchisees through appropriate programs and incentives
- Increasing the number of franchisees and alliance members in the SME sectors through facilitation, development of training programs and provision of incentives

SME 21

SME21 is a 10 year strategic plan spearheaded by SPRING Singapore to create vibrant and resilient small and medium enterprises (SMEs) that enhance Singapore's competitiveness and economic growth. It has 3 strategic goals:

- groom innovative high-growth SMEs to ensure a steady stream of SMEs to reach world-class status
- develop productive SME sectors to enhance productivity by restructuring, revitalizing and upgrading the sectors
- creating a knowledge-based, pro-enterprise environment to inculcate the appropriate mindset for business and entrepreneurship

Annex 2

ECONOMIC DEVELOPMENT BOARD'S (EDB) – ASSISTANCE PROGRAMS

The following assistance program from EDB can be found at http://www.sedb.com/edbcorp/sg/en_uk/index/investors/assistance_schemes/for_equipme nt_infrastructure_dvpt.html.

Approved Foreign Loan Incentive (AFL)				
Suitable for	What the scheme does	Eligibility	Benefits	Type of assistance
Investors	Tax incentive: grants full or partial exemption on withholding tax on interest payments to non- residents	Interest payments must be made on loans taken to purchase productive equipment only Minimum loan amount is \$\$200,000	Improves the company's ability to access offshore financing for investments in productive equipment as non-resident recipient would not be paying higher taxes in the home country	Equipment investment
	Develop	ment & Expansion	Incentive (DEI)	
Investors	Tax incentive: provides preferential corporate tax rates on all qualifying profits above a pre-determined base, for a set period	Project must generate significant economic spin offs for Singapore	Reduces tax liability. Assists the company to move into higher value-added business activities	Business development
	Expansion	on Incentive for Pa	rtnerships (EIP)	
Investors	Tax incentive: Provides tax exemption on 50% of the qualifying overseas income above a pre- determined base	Open to audit/accounting and law firms legally constituted as partnerships At least 50% of the equity stake of the applicant firm must be held by Singapore tax residents Activities must lead to the establishment of a regional centre of competence	Reduces tax liability. Assists the firm to establish centres of competence and conduct substantial level of regional activities	Business development/ regionalization

	Integrated Industrial Capital allowance (IICA)				
Suitable for	What the scheme does	Eligibility	Benefits	Type of assistance	
Investors	Tax incentive: allows companies to claim capital allowances for approved expenditure on plant and equipment used in an overseas subsidiary	Plant or equipment must be owned from Singapore	Reduces tax liability	Regionalization	
	Regionalization Finance Scheme (Indonesia) (RFS-I)				
Investors	Loan: provides fixed rate loans for investment in Indonesia manufacturing operations Assists local companies to set up and/or expand their operations in Indonesia	Open to all Singapore companies Investment must lead to active operation or increase in production capacity in the Indonesian company Loans may be extended for factory, or machinery and equipment investment	Provides an alternative source of financing Loans are at fixed interest rate	Expansion/ regionalization	

The Singapore-Riau Advantage

The Riau Islands of Bintan and Batam are just a stone's throw from Singapore. Located to the south of the city-state, Bintan is 45 km or an hour away by ferry, while Batam is 20 km or a 45-minute ferry ride. Together, these two islands offer abundant labor and facilities.

The competitive business environment of Bintan and Batam has entrenched global players from industries as diverse as precision engineering, plastic moulding, chemicals and garment fabrication.

Companies benefiting from the Singapore-Riau Combination include Philips, Thomson, Siemens, Seagate, Nidec and Venture, to name a few. They also include business giants from the US, Japan and Germany, amongst others.

Investment Guarantee Agreements

Singapore has signed investment guarantee agreements with 31 countries and regional groupings, with a further 10 in the pipeline.

These pacts help to protect foreign investments made by Singapore-based companies. The governments of the host countries are obliged to:

- Accord fair and high-level treatment to investments by Singapore-based companies
- Allow repatriation of income and capital earned in the country
- Ensure compensation in the event of expropriation or nationalization
- Provide an objective dispute settlement mechanism

The 31 agreements are with:

ASEAN	Mongolia
Bahrain	Netherlands
Belgo-Luxembourg Economic Union	Pakistan
Belarus	Poland
Bulgaria	Peru
Cambodia	Republic of Mauritius
Canada	Riau Archipelago
China	Slovenia
Czech Republic	Sri Lanka
Egypt	Switzerland
France	United Kingdom
Germany	United States of America
Hungary	Uzbekistan
Laos	Vietnam
Latvia	Zimbabwe

Annex 3

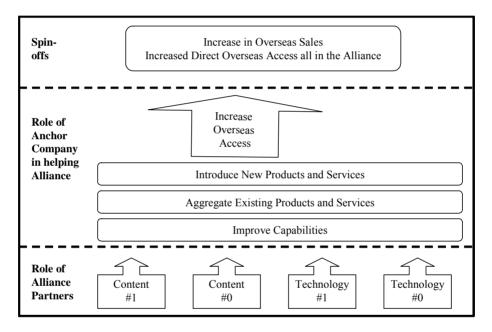
IE SINGAPORE ASSISTANCE PROGRAMS

International Partners Program

International Partners Program (iPartners) is an IE Singapore initiative that aims to increase Overseas Sales and Access of Singapore based companies through synergistic partnerships with industry leaders that could provide additional marketing channels.

Brief Description of an International Partners Program Project

An iPartners Project consists of one Anchor Company and several Alliance Partners. The companies have come together with the specific purpose of internationalization, spearheaded by an Anchor Company through an iPartners Business Development Manager. Below is a graphical representation of an iPartners Project:



Role of Anchor Company

The Anchor Company, which is an industry or market leader, will spearhead the project by providing one or more of the following value-add to the Alliance Partners:

- a. Greater access to the overseas market or a different segment of the overseas market through its value proposition including brand recognition, track record, etc:
- b. Adapt new or existing products or services for overseas markets; and
- c. Develop capabilities to penetrate the overseas market including the upgrading of existing technology/technological capabilities.

Role of Alliance Partner

The Alliance Partner must be able to complement the Anchor Company in this project and provide value proposition to the project. The Alliance Partner must sell its products or services in the overseas market(s) targeted by this project.

Role of iPartners Business Development Manager

iPartners Business Development Manager's responsibilities include:

- a. To co-ordinate the project so as to ensure that its targets and objectives are met;
- To identify resources to pursue overseas business opportunities for the project;
 and
- c. To report the progress of the project.

Double Tax Deduction Online System

What is Double Tax Deduction for Market Development Scheme?

The Double Tax Deduction Scheme for Market Development aims to encourage Singapore companies to expand their overseas markets. It allows for approved companies to deduct the eligible expenses incurred for approved projects twice against their taxable income.

Who can apply for this scheme?

To qualify for support, the company must meet the following criteria:

- 1. Be a resident company or have a permanent establishment in Singapore, and
- 2. Be an active operating/trading company with the primary purpose of promoting the trading of goods or provision of services.

DTD support is not be available for companies that are already enjoying other forms of tax incentives/concessions from the government (e.g. incentives under the Economic Expansion Incentive Act and the Income Tax Act).

What activities are supported?

The following projects are supported under Section 14B of Income Tax Act:

- Participation in approved trade fairs
- Participation in overseas trade missions/ market development trips
- Setting up of overseas marketing offices
- Master licensing and franchising
- Advertising in approved local trade publications
- Printing of corporate brochures/catalogues for distribution in overseas markets
- Engaging in other overseas market development activities, e.g. market surveys, feasibility studies, advertising and promotional campaigns in overseas markets, design packaging, product / service certification for export

What can I do with DTD online System?

- Through DTD online, you can
- Find out more about the DTD scheme
- Submit applications online
- Track the status of all your company's DTD applications
- Submit evaluations forms online

Annex 4

IDA AND SITF SET UP SINGAPORE SOLUTIONS CENTRE IN SHANGHAI

To help Singapore infocomm companies tap opportunities in the China market, the Infocomm Development Authority of Singapore (IDA) and Singapore infocomm Technology Federation (SiTF) have jointly set up the Singapore Solutions Centre (SSC) in Shanghai. The SSC will serve as a one-stop centre for China companies and agencies that wish to find out more about the technologies, products and services that Singapore Infocomm companies can offer. It will also help to identify partnership opportunities for the companies of both countries to work together to deploy innovative IT solutions to meet the growing needs of the China market.

As part of IDA's clustering strategy for helping Infocomm companies overseas, the SSC would showcase companies who are behind successful IT projects in sectors such as Transport, Logistics, Financial Services and Healthcare. These are also the four key growth sectors in China today. The SSC will feature a cluster of companies in each sector that can offer a complete suite of vertical solutions for potential customers. Each cluster will be led by a company with an established track record of doing business in China and this cluster leader will help its members to work in the China market. For a start, 19 companies have signed up as members of SSC, and the cluster leaders include Singapore Computer Systems, NCS Yu Bo, IPACS and Stratech Systems (See Annex A for list of SSC members.)

The SSC is off to a good start with the Healthcare cluster leader, Singapore Computer Systems, and its cluster member, EGIS Healthcare Technologies, clinching a contract worth more than S\$2 million with Beijing Tongren Hospital. Singapore Computer Systems will help Tongren deploy a fully integrated hospital information and management system for its new hospital wing. Over the next three years, SSC also hopes to achieve S\$37 million export revenue.

To allow China companies and agencies to experience Singapore technologies and solutions first hand, the SSC will house a permanent "Solutions Showcase". This is an interactive showcase of IT solutions in the four clusters as well as other innovative Singapore's technologies. Among the first to be featured are technologies from Creative Technology, AXS Infocomm and ST LogiTrack.

"The Singapore Solutions Centre represents a major milestone in SiTF's efforts to help our home-grown infocomm companies regionalize," said SiTF Chairman Saw Ken Wye. "In addition to SITF's efforts in bringing business missions to China and the rest of the region, the SSC forms a strategic beachhead through which SiTF member companies can more effectively source opportunities and establish a local presence in China. The SSC also plays a strategic role in building the 'Made-in-Singapore' branding of our local infocomm solutions in the international market," he added.

The SSC will be managed by a full-time director in Shanghai and its operations cofunded by IDA and SiTF. Each cluster of companies within the SSC will also have a full time Business Development Manager to help the companies in identifying business opportunities within these four specific sectors.

In addition to the SSC, companies can also tap on IDA China office¹ for assistance within the China market. Established since 2002, the IDA China office has been helping to facilitate infocomm collaborations between Singaporean and Chinese companies, and establishing the role of a government-to-government interface in the Infocomm arena. Through its Overseas Development Programme² and funding schemes such as Market

Development³, IDA will also provide assistance to the SSC cluster members to support their activities in China. Besides this, IE Singapore is supportive of this initiative and is funding two of the clusters through the iPartners Program. SSC cluster members can also tap on the IE Singapore's network of overseas offices in China.

Singapore Solutions Centre Clusters

Financial Services

- 1) NCB Yu Bo (Leader)
- 2) Automatic Identification Technology Pte Ltd
- 3) FairEx International Financial Systems
- 4) FOCUs5.NET Pte Ltd
- 5) NextVIEW Pte Ltd
- 6) System Access Pte Ltd

Healthcare

- 1) Singapore Computer Systems Limited (Leader)
- 2) EGIS Healthcare Technologies Pte Ltd
- 3) Medimedia Asia Pte Ltd
- 4) Sentient Health Pte Ltd
- 5) SQL View Pte Ltd

Logistic

- 1) IPACS e-Solutions (S) Pte Ltd (Leader)
- 2) Boon Software Consulting Pte Ltd
- 3) Logipolis Pte Ltd
- 4) Silk Technologies Pte Ltd

Transport

- 1) Stratech Systems Limited (Leader)
- 2) Ademco (Far East) Pte Ltd
- 3) Ufinity Pte Ltd
- 4) Vislog Technology Pte Ltd

OVERSEAS DEVELOPMENT PROGRAM (ODP)

Objectives

The Overseas Development Program (ODP) is a key platform to forge win-win partnerships between Singapore-based Infocomm Local Enterprises (iLEs) and leading Singapore Companies/Infocomm Multi-National Corporations (MNCs), at the Headquarters level, to:

- Prepare iLEs to be globally competitive, and to compete globally
- Boost iLEs' capabilities to increase their presence in growing markets outside Singapore
- Further enhance iLEs' overseas market position through direct access to leading MNCs/Singapore Companies' R&D resources, and global business opportunities and networks in their own countries

Why Overseas Development Program?

New impetus to leapfrog local partners' "go-to-market" capabilities. Many Infocomm Local Enterprises have matured over the years and have successfully developed software products and services for the market within and beyond Singapore. The ODP will be the impetus to "rapidly push" the iLEs towards globalization.

<u>Capability Enhancement</u>. Emphasizing on building capabilities, the ODP is a partnership-driven program that will leverage on the strengths, business connections and technology edge of MNCs/Singapore Companies' HQ to help iLEs gain a head start in new markets overseas.

ODP Partnership Models

<u>Technology Partnership</u>. Focus on product development, commercialization, and overseas market access.

<u>Services Partnership</u>. Focus on overseas solutions deployment, and overseas market access

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Samantha Sathischandra Wanniarachchi Kumarasinghe Multichemi Group of Companies

CREATIVE ENTREPRENEURSHIP IN THE FACE OF UNCERTAINTY

Prior to 1977, Sri Lanka had a closed economy and was mainly exporting its agricultural produce - tea, rubber and coconut without adding any value. After the open economy policy was introduced in 1977, the private sector got active and a new breed of creative entrepreneurs emerged. The companies that rode on the open economy wave at the very beginning enjoyed the best advantages over the late entrants.

In 1983, terrorist activities in the North and the East of the country started and the local market available for Sri Lankan entrepreneurs slowly began to shrink. Therefore, they had to be more innovative to survive in a fiercely competitive market that was shrinking in size due to the North-East war.

In this chapter, a few examples of Sri Lankan entrepreneurs who have been very successful due to their creativity and innovativeness are mentioned. Interviews were conducted with the entrepreneurs where possible or otherwise relied on a secondary source.

CREATIVE ENTREPRENEURSHIP IN THE TRADING INDUSTRY

Harry Stassen Jayawardhane ("Harry Jayawardhane"), a former tea taster, founded Stassen Exports Limited in 1977, as a bulk tea exporting company. At the very outset, their mission was to fight the bulk tea-exporting giants which were mainly British-owned companies. The dynamic and dedicated Harry Jayawardhane successfully fulfilled his mission by becoming the fifth largest bulk tea exporter in the country by the year 1982. In 1987, Stassen Exports became the proud owner of world's first certified organic tea garden and also expanded his bulk tea exports to become the leading tea exporter in the country by 1988. He also went into exports of desiccated coconut and spices. He has won presidential export awards for five consecutive years. By this time, he had amassed great wealth, as all his export profits were tax-free since 1977.

The government offered capital gains tax concessions for trading profits in the share market in late eighties. Harry Jayawardhane moved into the share market and started buying shares of publicly quoted companies.

Since then he has taken maximum advantage of the open economy and the privatization of government corporations. His main strategy has been acquisition of publicly listed companies and developing them successfully. His vision in business acquisitions and restructuring has made him the largest businessman in Sri Lanka today. At present, he is into many manufacturing industries but bulk tea continues to be his number one export.

His current investments with controlling shares include the following:

• Largest alcohol distribution network with numerous distilleries

- Second largest private bank in the country
- Largest milk powder packing plant in the country
- Largest insurance company in the country
- Processed food distribution company with the best brands in the world
- Largest hotel and hotel management company with hotels in Maldives as well
- One of the largest and oldest engineering companies in the country
- Large tea plantations
- Unknown number of foreign investments

He has a new vision of becoming one of the leading businessmen in Asia by the year 2010.

He is known as a man with strict and strong administration coupled with hands-on type management. Creative and capable employees are well looked after by him. His companies are known for paying the highest annual bonuses. Currently, he is also the advisor to the President of Sri Lanka on Foreign Trade and Investments. He will continue to be entrepreneurial to achieve his vision of being a leading businessman in Asia.

CREATIVE ENTREPRENEURSHIP IN THE FINANCIAL INDUSTRY

Lalith Kothalawala's father, Justin Kothalawala, hailed from a rich family. When Justin Kothalawala formed Ceylon Insurance Company in 1938, it was the first Ceylonese owned company in Ceylon (now Sri Lanka). When Lalith Kothalawala completed his education in England and returned to Ceylon in 1964, his father's business comprised of three companies - Ceylon Insurance Company, Middleway Printers and the Finance Company. His father also owned the tallest building in the country at that time, called Ceylinco House. Lalith Kothalawala joined his father's business at the age of 23 as a trainee.

After the death of his father in 1973 he became the chairman of the companies at the age of 32. Since then, Lalith had added more colour and variety to his father's business and formed Ceylinco Group diversifying into every conceivable field. They too have enjoyed the benefits of the open economy after 1977. His vision was to enter into joint venture investments with the regional giants of the many fields of business, mainly from India. He has a clear strategy of training and empowering employees and invests in information technology. He has also established e-commerce businesses in regional countries such as Malaysia.

Today Ceylinco Group has over 100 private and public companies and over 22,000 employees. Lalith Kothalawala has 15 deputy chairmen under him managing the group's business, dividing it into 15 main segments. He allows his companies to be run by these chairmen and the directors of respective units without much intervention. He has not gone into major acquisitions unlike some other entrepreneurs.

His major investments are in the following areas.

- Finance companies
- Banks
- Insurance companies
- Credit card business
- E-commerce

- Land and property development with innovative concepts
- Condominium projects
- Large scale housing projects with about 1,000 houses per project
- Diamond cutting projects
- Rural banking operations
- Health care and fitness projects
- Insurance companies in foreign countries such as Nepal and Bangladesh

His senior directors and managers respect him very much as an honest and kind entrepreneur. His success is in his vision and the way he has harnessed the talents and creativity of his senior staff. A man with no children, he has set up a trust to manage his businesses after him. The senior directors too will have some ownership in the respective groups.

His insurance company, Ceylinco Insurance recently won an international award for creativity on its "On the Spot Cash" motor insurance policy.

In 2004, he is about 62 years old and will continue to be a creative entrepreneur and expand his business empire with the aim to be the biggest group of companies in Sri Lanka.

CREATIVE ENTREPRENEURSHIP IN TRADITIONAL TEA

Merrill J. Fernando joined a British-owned bulk tea exporting company as a tea taster in 1950, and was later promoted to the post of CEO. During his time with this company, he has visited England and saw how various tea grades were mixed to produce value-added tea before it reach the consumer. There, he got the idea of supplying fresh Ceylon tea direct to the consumer right from its origins, Ceylon. This idea later transpired to be the vision for his own business.

In 1960, he left his job and started his own bulk tea trading company under the name Merrill J. Fernando & Co. Ltd. By 1970, he had become one of the 10 leading bulk tea suppliers to world's leading tea brands and also had his own tea plantations in Sri Lanka.

He faced unexpected problems when the socialist government came to power in 1970 and took over his tea plantations. Disappointed by this turn of events, he sold his company and made plans to leave the country. However, persuaded by his business colleagues, he formed a new company under the name MJF Exports (Private) Limited in 1974. Since then he has achieved great success and by 1979, became a leading bulk tea exporter in the country.

Keeping to his vision, he imported the first tea-bagging machine to Sri Lanka in 1980, without any orders in hand for tea bags. With a lot of hard work, he established a printing company to make tea bags, that was also carried out with no orders in hand. Thereafter, he visited leading supermarket chains in Australia, with ready-to-use samples to canvass orders for tea bags under their private labels. After two years of persuasion, in 1983 he won his first contract for tea bags from the Australian supermarket giant, Coles Myer Ltd.. His price to them was 40% lower than the multinational suppliers, but his goods were of very high quality. Soon, other supermarkets came to him and he had to fly in two new bagging machines to meet the demand.

Merrill Fernando, with a vision of "Supplying the end user the taste of original freshness of finest Ceylon tea direct from Sri Lanka"; established his own brand "Dilmah" in 1980. (Dilmah comes from the names of his two sons Dilhan and Malik) To ensure the highest quality of his product, he established all tea bagging operations in the same compound under his control. He instilled his vision at all levels of his workforce and trained them well.



Figure 1: Merrill J. Fernando

His strong will and creativity paid dividends in 1988 with the launch of his brand "Dilmah" in Australia. It was promoted through the same supermarket chains that supported him with their private labels. Dilmah became an immediate success in Australia. Soon, the company entered the New Zealand market and the business met with success too.

Sticking to the vision of "supplying the consumers direct from origin, the quality and freshness of Pure Ceylon Tea", Dilmah has been on the fast track of success since 1988. By the year 2000, they were very strong in Australia, New Zealand, Eastern Europe and some Middle-Eastern countries.

In the year 2000, they took another giant step forward by taking on the sponsorship of the Sri Lankan cricket team in a bid to enter the markets of all cricket playing countries. This enabled them to further enhance their global sales in Europe and Asia. Dilmah was introduced to the Sri Lankan market only after it was done so through cricket in the country.

Dilmah also got into McDonald's restaurants in 26 countries including Japan.

By the end of 2003 Dilmah had reached over 90 countries. Dilmah has a market share of 13% in Australasian region, slightly behind Twinings and Lipton which have a 17% and 19% share respectively (based on value). In New Zealand, they have market leadership at 26%, marginally higher than the number-two brand Bell which has 25%.

Sri Lanka is the world's largest tea exporter, but only 12 million kg out of a total export volume of 288 million kg is in the form of consumer packs such as Dilmah. MJF Exports (Private) Limited is the largest packed tea exporter in Sri Lanka and Dilmah is the only global brand of tea from a tea producing country.

Dilmah "genuine Sri Lankan Tea" may soon become the best selling brand of tea in the world, with the commitment and vision of this bold entrepreneur and his two sons.

CREATIVE ENTREPRENEURSHIP IN THE CHEMICAL INDUSTRY

After graduating in Science in 1982, Samantha Kumarasinghe started his career as a sales executive at a leading chemical company in Sri Lanka. With regular promotions, he became Marketing Manager of the company by 1990. In 1992, a new group bought ownership of the company and many senior managers left.

Samantha Kumarasinghe left the company in March 1993 and established Multichemi International Limited in July 1993 with a total work force of 12 people. Samantha had a small capital which he had saved with the profits earned from trading in the share market from 1989 to 1992. He also obtained a SME sector bank loan of about USD 35,000 to buy land and put up a small building for the factory.

By 1993, Sri Lankan entrepreneurs who benefited from the 1977 open economy policy were well established in the country's market and newcomers had very little opportunity to break in. Therefore, Samantha Kumarasinghe had to select an area that required very little capital but also had enough room to grow, as he had a vision of establishing an international business.

Samantha Kumarasinghe chose to produce liquid detergents that needed little capital and at the same time only had a few competitors. His company (Mulitchemi) created a good trade name for their detergents "Dash", and presented it with the new theme, "Bio Degradable & Environment Friendly Detergents." "Dash" was also positioned as a 'user-safe' detergent. Thus, "Dash" opened a new page in the liquid detergent market in Sri Lanka. At the time of Multichemi's entry into the market, there were other liquid detergent brands such as "Teepol", "Britol", "Eazy" and "Care". However, "Dash" stood out against the other products as it was positioned as above them.

Multichemi's strategy was an instant success and "Dash" became a popular name especially in the car care segment of detergents. He was bold enough to use the tagline "Dash - Clearly the best!" in the product's advertisements.

With the expanding garment industry in Sri Lanka, the garment-washing industry in the country was growing too. In 1994, Multichemi started formulating chemicals for the garment washing industry. In the same year, Multichemi signed a formulation agreement with the world leader of industrial enzymes – Novo Nordisk (now Novozymes) of Denmark – to formulate their textile processing enzymes in Sri Lanka.

In 1995, Multichemi expanded its horizons by exporting textile chemicals to Bangladesh. In 1996, the company opened its liaison office in Dhaka, Bangladesh to extend its business operations to the country. Multichemi capitalized on the popularity of Sri Lankan cricket in Bangladesh after Sri Lanka won the World Cup in 1996. In 1997, Multichemi established a 100% export-oriented, Sri Lanka Board of Investment-approved factory in Sri Lanka for exporting textile chemicals.



Figure 2: Dash – Clearly the best!

Other achievements of the business are listed as below:

- 1999 Established Multichemi Bangladesh, a Bangladesh Board of Investment-approved factory in Dhaka, Bangladesh, to produce liquid detergents.
- 2000 Introduced direct marketing of "Dash" range of consumer detergents in Sri Lanka.
 - Put up a new factory in Sri Lanka to expand exports of textile chemicals. Obtained ISO 9002 certification.
- 2002 Introduced a new range of genuine nature-based personal care products, "Nature's Secrets" with the main emphasis on skin care, in Sri Lanka.



Figure 3. "Nature's Secrets"

2003 – Established MCI Promotions (Pvt) Limited to handle their product advertising and conduct promotions.

Conducted a beauty pageant "Chavi Kalyani" (Miss Beautiful Skin), the first of its kind in Sri Lanka. This was done to position "Nature's Secrets" as the leading skin care range in Sri Lanka. The pageant was a great success and will be conducted annually for at least a few more years.

"Nature's Secrets" has so far become the most successful product range for his business



Figure 4: "Chavi Kalyani" (Miss Beautiful Skin)

2004 – Established a show room for "Nature's Secrets" in Chennai, India to reap the benefits of Indo-Lanka FTA (February).

Established a trading office in Dubai to promote exports of textile chemicals in the Middle East (March).

Completed a new factory to increase production of "Nature's Secrets" personal care products (April).

Creativity and Innovativeness of "Nature's Secrets" Launch

Today "Nature's Secrets" has become one of the most talked about personal care product range in the country. This range includes moisturizing creams, vitamin creams, fairness creams, sun screen lotions, deep cleansing milk, toner, scrub, facial wash, hand wash, shower gel, shampoo and conditioners. All these products are genuinely nature-based as every product contains a natural ingredient.

The creation such an image for "Nature's Secrets" within a period of one and half years in a market dominated by giants like Unilever, Proctor & Gamble, Johnson & Johnson and many local brands that are many years old, shows Multichemi's innovativeness.

How did "Nature's Secrets" achieve it?

The following steps were taken at its launch:

- 1. Grabbing the opportunity of the "Natural Craze" in personal care market.
- 2. Creating the right trade name "Nature's Secrets" that goes with natural products.
- 3. Introducing very high quality products, using the best raw materials in the world
- 4. Using genuine natural ingredients in all products, amounting to about 25.

- 5. Aiming at the middle class market at the beginning and later targeting the upper end of the market.
- 6. Avoiding head-on competition with the multinationals at the start.
- 7. Looking at low cost promotions which are more effective.
- 8. Deviating from traditional mass media advertising and selecting a weekly morning quarter-hour programme on National TV, mainly watched by housewives. Here, a more educational type of programme was conducted on beauty care using beauticians of repute.
- 9. Creating a new market in skin care with events like "Ms Beautiful Skin" and other programmes. This was the first time a beauty pageant was held in Sri Lanka to select the lady with most beautiful skin. Both married and unmarried women between the age of 17 and 27 years were invited to participate.
 - For this pageant, "Nature's Secrets" managed to get the number one national TV channel as the electronic media sponsor, the national carrier as the air ticket sponsor and a national newspaper as the print media sponsor to build the credibility of the event.
 - Swim suit competitions were avoided to respect cultural restrictions and to allow more people to participate.
 - Preliminary rounds of the pageant were ran for a longer period of the year to gather better publicity and more participation.
- 10. By above, "Nature's Secrets" was positioned as the leading brand of skin care range in the country, without much agitation that is found in the hair care market, where the competiting giants with huge advertising budgets fight.
- 11. With an established name in the skin care sector, "Nature's Secrets" hair care products were able to sell without any special promotions.

Today, "Nature's Secrets" has the best selling face-wash in the country that competes directly with Unilever soaps and Johnson & Johnson face-wash. It is in the process of further strengthening its product range and image by employing a leading cosmetic laboratory in the USA and inviting Western experts in the field to work with the company to further develop its formulations and develop new products.



Figure 5: "Ms Beautiful Skin"

Obstacles for Sri Lankan Entrepreneurs

The following factors hamper development of entrepreneurs and emergence of new entrepreneurs in Sri Lanka:

- High bank interests rates
- High cost of land for expansion projects
- Environmental restrictions
- Poor infrastructure outside of Colombo
- Poor political stability and swinging government policies
- Raw materials are unavailable in the local market

Role of Government and NPO in Promoting Entrepreneurship

The government in Sri Lanka has been saddled with a terrorist problem since 1983, and has never been able to extend support needed by entrepreneurs for development. Especially in the last ten years, Sri Lanka has had coalition governments who were more concerned with retaining power than looking at development of entrepreneurs.

Under these circumstances the following observations were given on the topic:

- The government has no effective policy to help local entrepreneurs.
- The government is bound by the terms of the World Bank and Asian Development Bank to award large contracts to donor countries, thus depriving local entrepreneurs.
- There are no NPO to help the industry, but many NGO's funded by the West are operating with various hyperactive sections of the society which hampers economic growth.
 - Even the National Productivity Centre is not financially sound to act significantly for entrepreneurship development.

Waleeporn Thanathikom Thailand Productivity Institute (FTPI)

ENTREPRENEURSHIP

The word "entrepreneur" is derived from French "entreprendre", refers to individuals who undertake the risk of new enterprise with accompanying risks of profit or loss. Carl Menger (1871) defined entrepreneurs are "change agents" who transform resources into useful goods and services, often creating the circumstances that lead to industrial growth. Adam Smith (1776) at an even earlier date called an enterpriser an individual who undertook the formation of an organization for commercial purposes. Entrepreneurs react to economic change, thereby becoming the economic agents who transform demand into supply.

In more recent times, Landstrom and Johannisson (2001) defined entrepreneurship as the exploitation of perceived opportunities through organizing resources and collaborators in new patterns.

As can be seen, the concept of entrepreneurship has been around for a very long time. In this new reality, the role of entrepreneurs is as practical visionaries who imagine new enterprises and bring them to successful fruition. In the last ten years there has been an explosion of interest in entrepreneurship. Today, entrepreneurship is attracting a lot of attention around the world. Many countries view entrepreneurship development as a means to economic power and open up new opportunities for innovation.

Holt (1992) notes that entrepreneurship is one of the four mainstream economic factors: land, labour, capital, and entrepreneurship.

ENTREPRENEURS IN THAILAND

Learning from the success stories in other countries, the government of Thailand foresees entrepreneurship as the country's economic power, economic recovery mechanism, and foundation of the economic system. Entrepreneurs are a key part of the strategy to generate new growth businesses and contribute to employment.

The Thai government has launched various programs to create and develop new entrepreneurs, incubation programs, as well as training courses on knowledge and skills for doing business (such as marketing, finance, applicable laws and regulations).

One of the mega projects is the One Tambon One Product (one village one product), or else called OTOP. The main purpose is to encourage every Tambon (village) to create value from local raw materials and local wisdom a product characteristic of that area. Main OTOP products are agricultural products, food, weaving products, handicraft, pottery, etc.

Most Thai entrepreneurs appear to have entrepreneurial social backgrounds; more often their parents are entrepreneurs. Some of them have adopted the idea of becoming entrepreneurs while they were studying as they wanted to prove themselves; some during their employment in a firm as they do not like to be employed for thier whole life.

Some become entrepreneurs to survive when they were unemployed. This group may be called "necessity entrepreneurs". Previously, necessity entrepreneurs were people

moving out of the rural area into towns and cities. They were desperate for any work or jobs that would enable themselves and their families to survive.

This type of entrepreneur has been multiplying after the recent regional economic crisis in 1997. As a result of that catastrophe, many firms became bankrupt and laid off employees. A lot of the unemployed became necessity entrepreneurs and one of the more easy businesses to start up is the food business, which can be in various styles, such as moving pushcarts, shacks along the roadside or small food shops.

WHY ENTREPRENEURS?

People start to be entrepreneurs when they foresee many benefits in doing so. They seek wealth: one receives a fix amount of salary when working for a firm, while a successful entrepreneur can earn a far higher income. Independence is another benefit in entrepreneurship: working for a firm requires at least 8 working hours a day with a line of command to follow in reporting to bosses and superiors, while entrepreneurs can enjoy independence and freedom. Entrepreneurs find fulfillment: the excitement and challenge of owning an enterprise makes life stimulating.

However as entrepreneurs, people will not only face advantages, challenges also await them. They face insecurity: fixed working hours, steady income, fringe benefits, bonus, retirement earnings, etc. are not guaranteed for entrepreneurs. Risk has to be undertaken by any entrepreneur: high returns come from high risks, especially for financial risk. Entrepreneurs face uncertainty in the environment: the environment impacts businesses especially the small ones with few products or services; these businesses have difficulty in adapting to change and technology. Initiating, developing and growing an enterprise is time consuming: entrepreneurs are responsible for their success or failure, and have less time for their family and relaxation.

In the first three years, start-ups usually struggle with loss or only manage to breakeven. Returns will normally flow in around the third year. Unfortunately many of them cannot overcome the continuing challenges and fail.

The future entrepreneurs must be well aware of the unforeseen problems, challenges, business uncertainties, and financial risks, which may bring them financial loss.

The major weakness to the growth of entrepreneurs in Thailand is the entrepreneur's inability to develop a business plan. Many start-ups have great dreams but can not transform these ideas into a sound business plan and marketable product. Some entrepreneurs may have gained business knowledge and experience, but lack the specific business skills in areas such as marketing and finance.

CHARACTERISTICS OF SUCCESSFUL ENTREPRENEURSHIP

From successful cases of entrepreneurship, the following characteristics of successful entrepreneurship can be identified:

- High level of creativity is at the heart of entrepreneurship to enable new ways of thinking and working.
- Risk taking is an essential characteristic, as entrepreneurs have to break rules, cut across accepted boundaries, and go against the status quo since high returns come from high risk.

- Ability to see, evaluate, and seize opportunities large or small that no one else has noticed, distinguish the successful entrepreneurs from normal ones.
- Besides, entrepreneurs must be capable of transforming their vision or perceived opportunities into successful enterprises.
- Since the success or failure of their enterprise depends on themselves, ambition, motivation, determination, and strong will are required as entrepreneurs continuously face obstacles.
- They must be energetic, diligent, disciplined, and able to work under pressure and at the same time be optimistic and flexible to respond positively to any challenges.
- Able to marshal the resources needed to effectively achieve their goals.
 Entrepreneurs need to focus on creating value by doing things better, faster and at lower cost.
- Furthermore, entrepreneurs must have the eagerness and ability to learn the essential knowledge and skills such as market knowledge, management and technical skills. Most importantly, they must learn from their own set-backs and the failures of others.
- Social skills, persuasiveness, and ability to build and manage their social networks are unavoidable.
- Finally, entrepreneurs must be aware of when and prepare how to harvest, or exit gracefully when it becomes obvious that the new enterprise is not working.

CREATIVE ENTREPRENEURSHIP

Creative entrepreneurship refers to the entrepreneurs with the ability to bring something new into existence.

Nowadays, young and energetic people dream of freedom and independence. To become a creative entrepreneur one first needs to be creative. Second, the desire to start something, and third, the want or need to break one's boring routine working hours, and change their life pattern. They may only have a minimal start-up budget, plus their expertise or personal preferences.

Creative entrepreneurs in Thailand generally start out with a part-time home business, or turn their hobbies into a money-making business. They may start from doing something of their choice, and develop it into full-time ventures later on.

EXAMPLES OF CREATIVE ENTREPRENEURSHIP: BANGKOK PUPPET

The "One Tambon One Product" (OTOP) project, as stated before, is supported by the government of Thailand. The government planned for OTOP to strengthen the domestic economy which would further drive the economy's circulation and growth. The regional crisis in 1997 destroyed the value of properties of many employees but at the same time created opportunity and wealth for many new entrepreneurs. Pirun Aemsrisa-ad was one of them.

Pirun Aemsrisa-ad had been laid off from his career as an architect from which he earned a sizeable salary of Baht 60,000 per month. During his unemployment, he was not daunted, and sought to find new channels of income. With his personal liking for clay

molding, puppet, and Thai art, Pirun spent his time learning about the puppet production at the Royal Art Center.

Making a real size puppet consumed many months of his time and Pirun saw the opportunity of his new business. He condensed the size of his puppet to 15 centimeters while other functions such as the details and the moving parts remained. His small-sized puppet was first presented at a fair under the brand of "Bangkok Puppet", and received good response from customers. From then on, his small puppets were found on shelves in Bangkok's shops and department stores.

However, Pirun was still not satisfied with his small puppets. He refined the puppet's face, costumes, and packaging. From that improvement, the price of his small puppet was marked up from Baht 800 to Baht 2,000. Moreover, he created a new production line of dolls in traditional Thai costumes which generated value, allowing him to price them for Baht 4,000-5,000.

The reason his puppet is able to command premium prices is because the small puppet is neatly handmade at every step. Every small puppet is subjected to quality control by Pirun himself.

Today, small puppets and dolls in traditional Thai costumes are popular souvenirs among Thais and foreigners, and in export markets, namely Japan and USA. Bangkok Puppet has been selected as the 5-star OTOP of the district in 2003.

Pirun used his **savings to invest** in future projects such as building his own showroom for his small puppets and dolls. Also, he plans to expand his market to the European and English puppet and miniature collectors.

More often, OTOP entrepreneurs can run their business smoothly on a smaller scale. Some have successfully expanded their business to a larger scale, but many of them fail as their management skills are not as good as their expertise.

INNOVATIVE ENTREPRENEURSHIP

Innovative entrepreneurship refers to the entrepreneurs that transform creative ideas into useful applications in new or unusual ways to provide value to society with improved products, technology, or services.

Innovation is the act of creating something new and worthwhile. Innovative entrepreneurship is the act of bringing an innovation to the market and commercialising it.

Entrepreneurial skills are about identifying and using innovation in a way that is commercially sensible.

Successful entrepreneurs which produce and market an innovative product or service that never exist before often start their business with clear vision and concrete business plan. More often, they have higher education with knowledge of information and financial sources to support their business.

Examples of Innovative Entrepreneurship: Banrai Coffee

Saichon Payaonoi was working as geological architect in the real estate company, "Land and House". During his vacation, he loved to drive his own car while traveling. On his trips, Saichon observed that travelers favored coffee as they stopped by gas stations to get some refreshments and relax. At that time, only canned coffee was available at gas stations.

One day, Saichon saw local people served fresh traditional Thai coffee along the road side. He felt that the brewing method was very enchanting and thus ignited the idea

of combining the enchanting coffee brewing process with an accessible, clean, and nicely decorated serving place.

While on vacation during the period of 1995 – 1997, Saichon stopped by every gas station to talk to mini-mart cashiers and collect information on the sales volumes of coffee. He named his approach "Rustic Marketing". At first, Saichon planned for his coffee project as an additional income apart from his normal salary. The start-up budget of Baht 150,000 was not the problem; the real problem was the location.

With his expertise as a geological architect, Saichon designed his coffee outlet in the Thai traditional style. His clear vision was transformed into a "wooden cabin for coffee lover and traveling caravan" at a PTT gas station in the suburb of Bangkok in 1997. His first outlet was served by three staff: his brother, his nephew and, himself. It started up nicely with a forecasted net income Baht 10,000 per month. But 13 days after the inauguration, a car accidentally crashed into his cabin, and that was the tragic end of his first project as an entrepreneur.

However, Saichon persevered and presented his idea to many gas stations. Finally, the JET gas station company was satisfied with Saichon's concept as it aligned with their differentiation strategy. "Banrai Coffee" – "Coffee Garden" was then reborn at the JET gas station, Rangsit branch in April 1998. It succeeded with incredible sales volume, and six more Banrai Coffee outlets followed.

In 1999, Saichon quitted his job and became a full-time entrepreneur. Banrai Coffee uses native product and services, such as coffee planted by The Royal Project, coffee roasted by a factory in Saichon's home-province, Saraburi, and served in handmade baked clay cups from the same province.

The distinguishing characteristics of an optimistic and diligent learner inspired Saichon's systematic thinking and clear vision. 4 years later, at 35 years of age, Saichon operates a total of 100 branches of Banrai Coffee in almost every region of Thailand, with monthly sales volume of some Baht 100 million. Saichon sets his goal to expand his outlets to neighboring countries in the near future.

SERIAL ENTREPRENEURSHIP

The traditional entrepreneur is the owner-manager who usually runs one business at a time. Though found in several locations, the business is still run by one company. However, some entrepreneurs have a different approach; they start several businesses at the same time or one after another.

As a general rule, entrepreneurs are not risk-averse people – and for serial entrepreneurs, this characteristic is even more pronounced. Starting the first firm is only another step toward their ultimate success. They might make the first business a success, sell it and go on to start another. Others start several separate firms to test the market and diversify risk with an acceptance that some of them might fail. Other serial entrepreneurs have strategies in their mind, they start several firms but all are in related in some way.

Examples of Serial Entrepreneurship: Oishi Group

Oishi in Japanese means delicious, but for Tan Pasakornnathi, it means success. Everything he grasped becomes value-added business. Tan said that the phenomenon is not because he was smarter than others, but because he saw the opportunities before the others.

Before Oishi Group, Tan started and failed several scattered businesses: bookshop, coffee shop, food shop, land and property, etc. Those failures turned out to be his lessons.

He then sought his success by venturing into a wedding studio business. With the lessons learnt from his earlier business failures, he then, introduced the concept of networking in his new enterprise. Today, his wedding studio is a part of 19 brands and a 19-company wedding studio chain. All studios have different shareholders. Tan, as the central shareholder, coordinates all the studios for the purpose of managing cost, namely advertising budget, sharing resources, or even borrowing resources.

On 9 September 1999, he started Oishi Group, another related line of business with 'spider marketing' – a new concept of marketing he developed from previous business experience - creating valued-added original products or services with co-marketing or coraw material utilization. Tan started Oishi as a Japanese restaurant business, but differentiated it by serving in buffet style, which was first launched in Thailand. From that point on, he started several food businesses, employing his effective cost management objective, to make bulk purchases, share resources (such as cooks, machines, logistics) and utilize resources. The leftover raw material from one dish can be a valuable component of the other dishes, for example fish bones from Oishi Buffet fish menu can be very good stock for Oishi Ramen (Japanese noodles).

Today, there are 6 Oishi Japanese Buffet restaurants, 7 Oishi Ramen restaurants, 2 Oishi Sushi Bars, 8 Shabushi Buffet branches, 1 Grill N' More Steak Cabin, with Oishi Inter and Oishi Trading as the central kitchen serving others in the chain. Last but not least, In&Out Bakery was started when he recognized the opportunities that were present as his food business chain were using baking services of over Baht 1 million per month.

The Oishi brand is very well known and widely accepted by consumers. Oishi utilizes their food shop branches as distribution channels for new products, such as moon cakes during the Chinese moon festival (the mid-Autumn festival).

Tan's latest move was shook up the beverage market in Thailand. In his Oishi Japanese Buffet restaurants, green tea coolers are provided for diners. Enjoying its taste, some customers wanted to buy green tea home. Oishi then responded by filling green tea in ordinary plastic bottles for take away. With good response and increasing demand from consumers, Oishi green tea is presented in attractive packaging, both in bottle and tetra pack boxes, and distributed through various channels, including supermarkets and convenient stores.

Today, green tea has become the most popular beverage for the younger generation in Thailand. In 2003, the green tea beverage market is valued at over Baht 1,000 million. Moreover, the green tea fad has spread to other products, anything with magic word "Green Tea" interests consumers; green tea milk, green tea yogurt, green tea bread, green tea soap, green tea shampoo, green tea lotion, green tea tooth-paste, and even to green tea sanitary napkins!

The success of Tan Pasakornnathi came from continuous business development, and the courage in handling risks or obstacles placed in his way. He revealed that doing business is not just starting a business, but also designing the business. Tan's main strategy is cost effective management and resources utilization. Tan is preparing to bring his group of food companies for listing on the Stock Exchange Market of Thailand and to further expand his Japanese restaurants through franchising.

SOURCES OF INFORMATION

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Wiwat Chutiwanichayakul Kenan Institute Asia

INNOVATION NETWORKS AND SUCCESSFUL CREATIVE ENTREPRENEURSHIP IN THAILAND

Since the 1980s, the concept of the National Innovation System (NIS) has been gaining popularity as a core conceptual framework for analyzing technological change. Technological change is considered to be an indispensable foundation of Thailand's long-term economic development.

The NIS concept rests on the premise that understanding the linkages among the institutions – especially how these institutions relate to each other as elements of a collective system of knowledge creation, diffusion and application - is a crucial instrument for improving Thailand's innovative performance. These institutions include both "things that pattern behavior" like norms, rule and laws (e.g. patent systems and technical standards) and "formal structure with an explicit purpose" such as firms, industrial research and development (R&D) laboratories, universities, and public R&D institutes.

The key components of the Thai NIS are major industrial clusters which are networks of firms, knowledge producing agents, bridging institutions and customers linked with each other through shared information needs, related value chains and via significant levels of interaction and interdependence.

As the Thai economy has lost its competency to compete in the late 1990s and is no longer able to sustain development. Innovation is a significant factor in re-structuring, especially in the technology sector and could create a quantum leap in the nation's competitiveness. Therefore, upon recognizing the critical importance of innovation in enhancing the value of the Thai economy, the 9th National Economic and Social Development Plan (2002-2006) has identified the development of innovation as an important mechanism for improving the country's level of competitiveness. Apart from that, innovation is one of the ways to improve science and technology strengths by emphasizing the implementation of science and technology in manufacturing and local innovation development, thus reducing reliance on imports.

By 2004, innovation was accepted as a very significant public policy issue in Thailand. Policy makers have begun to recognize the importance of innovation to Thailand's competitiveness. The government has played an important role in the invention and the transfer of technology by providing financial support, technical support, and legal patent protection. The organizations that provide SME support include the National Science and Technology Development Agency (NSTDA), Thailand Institute of Scientific and Technological Research (TISTR), Thailand Research Fund (TRF), Innovation Development Fund (IDF) and Department of Intellectual Property.

To encourage 'Practical Innovation' among Thai organizations and Thai innovators, many organizations including the government, academic institutions and the private sector have organized many innovation-related awards – for example, the "Thailand's BEST Innovation Award 2003" organized by Accenture (Thailand) and The Nation newspaper. The program aims to encourage Thai organizations and the Thai people to generate, develop and create new theories, new work processes and new innovations, all of which

must be practical and bring crucial benefits to the country. Most importantly, they must enhance work processes and create a better quality of living.

SUPPORT AND SERVICE MECHANISMS FOR SMES AND ENTREPRENEURSHIP IN THAILAND

In Thailand, small and medium-sized enterprises (SMEs) constitute some 99 percent of manufacturing businesses in the country, representing 50 percent of the GDP. SMEs also employ more than 60 percent of the country's workforce.

Major SME promotion and development agencies in Thailand include:

- the Department of Industrial Promotion (DIP) under the Ministry of Industry
- The Office of Small and Medium Enterprises Promotion (OSMEP), established in 2001
- Institute for Small and Medium Enterprises Development (ISMED), established in 1999

The Department of Industrial Promotion (DIP) under the Ministry of Industry acts as the lead agency of the government to promote and develop SMEs as well as to develop entrepreneurs in Thailand.

At present, the Thai government has a clear policy to create and develop new entrepreneurs. The New Entrepreneurs Creation (NEC) program was developed in 1999 under the industrial restructuring budget. However, there was no budget for the year 2000-2001. In 2002, the NEC program became active again. The DIP received a regular budget of Baht 7.5 million and an economic stimulus budget of Baht 174.5 million for the New Entrepreneurs Creation (NEC) project. The cabinet recently approved a plan called the "National New Entrepreneurs Creation" in May 2003.

The NEC program aims to develop 50,000 new entrepreneurs throughout the country by 2004. This plan also includes an effort to elevate the number of entrepreneurs from the current 1 in a population of 130 to 1 in a population of a hundred. As of 2003 the program is partnered with 15 academic institutions throughout the country, 3 financial institutions and 8 independent organizations. All of which are listed below:

Academic Institutions

- 1. Chulalongkorn University
- 2. Thammasat University
- 3. Kasetsart University
- 4. Prince of Songkla University
- 5. Khonkaen University
- 6. Chiangmai University
- 7. Srinakharinwirot University
- 8. Bangkok University
- 9. University of Thai Chamber of Commerce
- 10. National Institute of Development Administration
- 11. King Mongkut University, Northern Campus
- 12. Rajmongkol Technology Institute
- 13. Suranari Technology University
- 14. Burapa University
- 15. Mahasarakam University

Financial Institutions

- 1. SME Development Bank
- 2. Industrial Finance Corporation of Thailand
- 3. Siam City Bank Public Co., Ltd.

Independent Agencies

- 1. National Science and Technology Development Agency (NSTDA),
- 2. The Institute for Promotion of Teaching Science and Technology
- 3. National Electronics and Computer Technology Center
- 4. Entrepreneurial Competency Development Association (ECDA)
- 5. Quality Development Association of Thailand
- 6. Association for the Promotion of Thai Small and Medium Enterprises
- 7. Ingka Company
- 8. Than Sertakit Newspaper

These organizations organize workshops, seminars and training for entrepreneurship development, business formulation, business management, as well as provide consulting services, business incubation, finance and investment, and market development. As of February 2003, the NEC program has created 902 new investment projects, 5,664 new jobs and overall investment of Baht 3,259 Million.

The NEC program includes the following activities:

1. Short Course Training (9 Days Period)

The courses are set up for entrepreneurs who already have some business knowledge and experience, and need to develop specific business skills in certain areas such as marketing and finance. The courses that have been arranged, for example, are business succession, entrepreneurship in franchising, web page design development and preparation for SME businesses.

2. Long Courses Training (18 Days Training, 9 Days Workshop)

The courses are organized for entrepreneurs with little prior business knowledge or experience. They are intended to train entrepreneurship skills by focusing on business preparation, knowledge of business formulation, and applicable laws and regulations. The courses that have been arranged include new entrepreneurs development, entrepreneurs development for new technologies businesses, and new entrepreneurs development for sustainable careers.

3. Market for finance and investment of SMEs

The market acts as a meeting point for SME entrepreneurs whose business plans have been formulated, and providers of SME financing such as financial institutions and venture capitalists.

4. Business Incubation

Setting up incubation centers at the premises belonging to the DIP and/or partnering organizations.

Persons

Figure 1: Results of New Entrepreneurs Creation, by the DIP, from 1999-2003

BUSINESS INCUBATION IN THAILAND

Thailand has been involved with SME incubation projects since the birth of Thailand's National Development Plans in 1970s. However, a clear focus of the issues, and consequently active policy implementation for smaller-scale businesses did not come into the spotlight until after the recent regional economic crisis in 1997.

The Thai government now has five broad policies addressing business incubation, namely: capital and finance, official SME institutions, SME laws and legal procedures, land and space supports, and taxation. Having identified these five policy areas, the Thai government is now putting these policies into action at great speed. For financial matters, the Thai Ministry of Finance is now in charge of providing support and suggestions to SME investors. The SMEs official institution (ISMED) has been set up since 1999 as a core technological center that serves as an interface between SME owners and the government. SME laws covering various aspects, ranging from basic legal rights to business protection also came into effect. The Thai National Housing Authority, under the supervision of the Ministry of Defense, is responsible for land use matters, especially emphasizing land taxation and property transfers. Last but not least, the Thai Ministry of Commerce is taking care of general SME taxation by providing favorable tax schemes to all SME investors.

ORIGIN AND DEVELOPMENT OF BUSINESS INCUBATORS IN THAILAND

Thai business incubator development and adoption is primarily within the purview of academic institutions and the government, not the private sector. While statistics and literature on Thai business incubators are sparse, the more notable examples include the joint government and industrial park projects such as software parks, science parks, and incubator units of academic institutions.

On the government side, the Department of Industrial Promotion (DIP), Ministry of Industry, takes the lead role in business incubation programs. The DIP began to acquire knowledge of business incubation in 1984 when the German government assisted Thailand in developing industrial projects. Experts from the Industrial Development Authority of Ireland (IDA) were invited to Thailand to share knowledge of SME development among the government officers. The experts advised on many programs in industrial development including the setting up of Business Opportunity Centers (BOC), industrial clinic activities etc. The DIP's officers also had an opportunity to visit Ireland to gain first-hand experience in SME development including the business incubation center. However, a lack of budget and resources froze the project before it could be implemented.

The first government incubation program was created under the Thai national master plan for the development of SMEs in Southern Thailand. The objective was to contribute to the economic development of Southern Thailand through increased SME activities. With funding and technical support from the European Union (EU), the first incubation center was established in 1999 by the DIP, and the Institute of Small and Medium Enterprise Development (ISMED). The pilot center was set up on the grounds of the regional Industrial Promotion Center (region 11) in Hat Yai, Songkhla. The infrastructure occupied an area of 650 square meters, offering both in-wall and out-wall facilities and the capacity to incubate 7 industry units. The incubation center at DIP region 11 is considered to be the pilot incubation center and is still operating as of today.

A significant business incubator emerged in Thailand in 2002 using a new budget for stimulating the economy from the government. The project "New Entrepreneurs Creation" (NEC) was re-launched with an aim to promote entrepreneurship development throughout Thailand. The business incubation center was one of the major activities under the NEC program. At present, there are many business incubation centers operating in Thailand using the models as listed below:

Models of incubators

There are different models of business incubators in Thailand.

If classified by space utilization we can group them into two groups:

- *In-wall:* An incubator in-wall refers to an actual physical infrastructure that houses the start-up businesses. While service offerings vary among incubator units, a full-service center provides everything a venture will need, including office space and infrastructure, access to networks of contacts, technology resources, human resources, operational expertise, and legal and accounting support. The infrastructure usually covers an area of 1,200–1,600 sq.m.
- *Out-wall/Out-reach:* An incubator out-wall does not provide office infrastructure. These centers accelerate the process of starting a venture, which may already have their own office and equipment, by offering expertise and services only. This may include consulting services to bolster the business plan, repositioning the firm, validating the business model, or bringing products to market.

If classified by incubation functions, there are four groups:

- *Incubator in Specific Industry*: this type of incubator is established for the purpose of incubating new start-ups in a specific industry such as the agricultural transformation industry, software industry, and ceramic industry.
- *Hiding Incubator*: these small incubators usually operate under some organizations for specific business purposes.
- *High-tech*: incubators have experts or expertise in particular fields such as biotechnology, life sciences etc. and use their knowledge to support incubatees.
- *Information Technology (IT)*: incubator provide IT infrastructure and provide consulting for IT and IT related issues.

Table 1: Result s of SMEs Business Incubation under the NEC Program

Incubators	Incubatees	Business	Employments	Note				
		created						
Economic Stimulus Budget 2002								
1. King Mongkut								
University, Northern								
Campus (In-wall)	15	4	58	-				
- Mechanical								
&Automotive field 3								
- Plastic field 3								
- Furniture & wooden								
products 5								
- Electronic field 4								

2. Rajmongkol Technology Institute (In-wall) - Leather products 3 - Ceramic products 4 - Bakery products 11 - Apparels products 3	21	13	110	-		
3. Software Park (In-wall)	20	5	131	-		
4. Engineering faculty, Prince Songkla University -In-wall 16 -Out-wall 7	22	7	102	-		
5. Industrial Promotion Center, region 9 - General industries 11 - Food & Agricultural transformation and Packaging 10	21	7	93	-		
Regular budget						
6. Excellent Business Management Co., Ltd.	23	16	64			
Total	122	52	558			

Table 2: Performance Results of Business Incubation Activities on 2003

	Organization	Target	Participant
1.	Industrial Promotion Center, region 1	In-wall: 3	In-wall: 3
			Out-wall : 2
2.	Industrial Promotion Center, region 3	In-wall: 3	2
3.	Industrial Promotion Center, region 4	Out-wall: 3	3
4.	Industrial Promotion Center, region 5	In-wall: 2	2
5.	Industrial Promotion Center, region 7	Out-wall : 5	5
6.	Industrial Promotion Center, region 8	Out-wall: 2	2
7.	Industrial Promotion Center, region 9	In-wall: 10	30
		Out-wall: 10	30
8.	Industrial Promotion Center, region 10	In-wall: 1	In-wall : 1
		Out-wall: 14	Out-wall: 14
9.	Industrial Promotion Center, region 11	Out-wall: 17	17
10.	Bureau of Industrial Enterprises and	In-wall: 10	In-wall :10
	Entrepreneurs Development	Out-wall: 10	Out-wall: 10
	Srinakharinwirot University	In-wall: 10	In-wall: 10
		Out-wall: 10	Out-wall : 10
	Software Park	In-wall: 8	8

NUMBER OF INCUBATORS IN THAILAND

There are two kinds of incubators in Thailand, government-own organizations and privately-owned organizations. Currently, there are 19 incubators in Thailand belonging to

both the government and private sectors, 18 are government organizations and only one is a private incubator as shown in the Table 1.

According to information from Department of Industrial Promotion (DIP), Ministry of Industry of Thailand: from year 2003, the number of organizations involved in the new New Entrepreneurs Creation (NEC) project will increase. An additional 11 government-owned universities and 8 independent organizations will participate in the NEC project.

It is expected that the number of incubators will increase accordingly with new startups being created.

Types of Incubators

Almost all of the government-owned incubators are industry specific except for the two incubators, Software Park and Science Park which are Information Technology (IT) and high-tech incubators, respectively.

The industry specific incubators usually offer space for business operations, provide consulting services in business management and administration but are not deeply involved in the terms of production technology. Incubatees set their own direction in the industry that they have selected.

Software Park and Thailand Science Park play different roles. They provide space for business operations, consulting in business management, administration and IT infrastructure, and deploy expert IT consultants or particular technology experts to their incubatee.

Thai Incubator Dot Com Co. Ltd. is a private incubator that is classified as the IT type. The Thai Incubator provides the same functions as mentioned in government organizations plus financial support. Table 3 shows the types of incubators in Thailand and their characteristics.

No.	Incubator	Sector	Type of Incubator	Main function of Incubator	No. of incubatees		es
			incubator	incubator			2003
					Total no.	Business Established	Total no.
4	I. National University	Gov.		i. Office space with equipment furnished ii. Technical and technology support from experts iii. Management and administration consultant			
	1.1 King Mongkut Institute of Technology	Gov.	Industry specific		15	4	0
	1.2 Rajamongkol Institute of Technology	Gov.	Industry specific		21	13	0
	1.3 Songkhla Nakarin University	Gov.	Industry specific		22	7	0
	1.4 Srinakarinwirote University	Gov.	Industry specific		0	0	20
11	II. Industry Promotion Center (area 1-11) : 11 places	Gov.	Industry specific	i. Office space with equipment furnished ii. Management and administration consultant	21	7	81

Table 3: Incubators in Thailand and their characteristics

	III. Bureau of Industrial Enterprises and Entrepreneurs Development	Gov.	Industry specific	i. Office space with equipment furnished ii. Management and administration consultant	0	0	20
	IV. Independent Organizations Established by Government :	Gov.	Information Technology (IT) and Innovation & High tech				
	4.1 Software Park	Gov.	Information Technology (IT)	i. Office space with equipment furnished ii. Management and administration consultant	20	5	8
	4.2 Thailand Science Park	Gov.	High-Tech	i. Office space with equipment furnished ii. Technical and technology support from experts iii. Management and administration consultant	4	0	20
_		Private sector	Information Technology (IT)	i. Office space with equipment furnished ii. Technical and technology support from experts: IT iii. Management and administration consultant iv. Financing Support	10	0	6
19					113	36	155

OPPORTUNITIES FOR BUSINESS INNOVATION AND INCUBATION IN THAILAND

Currently, growth rate of small-scale business is still small. In 2001 the growth rate of small-scale business was 3.6% whereas medium scale business showed growth of 9.8% (in terms of number of business). Some sources of information (magazine) claim that the number of successful SMEs is still small because after several years of operation at the commercial level, they face many problems and finally shut down. Therefore the level of competition among established SMEs is not high. There is a room for new players under incubation to grow in each business or industry in Thailand.

Resources: Thailand has human and natural resources. At present, the Thai Government has set out a special budget for training new graduates to be entrepreneurs and has created many related and continuous learning programs to guide them to establish their own businesses (NEC projects). After completing the programs they can be one of the incubatees in any incubation center.

As Thailand is located in the tropical region with a sizeable agriculture sector it has the potential to develop new technology in agriculture-related areas such as biotechnology and agricultural technology.

Thailand started the idea of business incubation several years ago (Year 1999). The country is in the start-up stage of business incubation. It is looking for the opportunity to improve its incubation activities as well as opportunities to develop the know-how of incubation from advanced countries such as Taiwan, US etc., which have moved on from the start-up stage to record achievements in business incubation.

BARRIERS TO "BUSINESS INNOVATION AND INCUBATION" IN THAILAND

No precise budget from Thai Government has been assigned to incubators or business incubation organizations in both the Government sector and in the private sector. The budget for incubation activities has been grouped together with other budgets to develop and support industrial sectors.

The Thai culture and perceptions contradict the idea of incubation. Thais have highly individualist attitudes and are very independent. Therefore, sometimes some entrepreneurs choose not to use the incubation space provided by government organizations or "in-wall" incubation but set up their own "out-wall" offices which lead to higher cost and expenses. At the same time, they feel awkward consulting government appointed consultants because of the close scrutiny that will be placed on all their transactions.

Apparently, the measurement of achievement from government agencies and private sector is different. The government measures the achievement of incubation projects using employment capability of each project while the private sector measures the achievement of incubated projects using the "Break Even Point" which means self-financing. There is no commonly used benchmark to determine the success of incubation at the moment.

THE DEVELOPMENT OF A CLOSE TIE IN INCUBATORS AMONG DIFFERENT COUNTRIES

Thailand is a small country and is in the stage of developing its economic, industry and social sectors. Therefore, the support and collaboration from the advanced countries is necessary. An international seminar can bring about closer relations and build a network which can support collaboration between Thai and international incubators.

Possible ways for collaboration on business incubation include:

- 1. Exchanging experiences and knowledge in incubation from international incubators in both the private and government sectors regularly, eg. semi-annually. This could be achieved through an international seminar.
- 2. Staff exchanges between incubators in Thailand and countries that already have successful track records in business incubation such as Taiwan and US. The purpose of these interactions is to share and exchange incubation problems between incubators and incubatee in depth, general problems, and work at the coordinating level to solve the problems.

- 3. Set up a special program to educate SME entrepreneurs in Thailand. The program topics may cover success stories of incubation in various countries and various incubation types, and provide opportunities for them to observe business incubation in foreign countries.
- 4. Regular seminars among incubatees and incubators to be held in each country. The purpose of these seminars is to gather information for the development of business incubation, for incubators to learn about the efficiency and problems of incubation occurring between incubators and incubatees.
- 5. Create a means such as a web site for incubators and SME entrepreneurs to discuss and exchange information widely as well as receive different point of views. In addition, the website could be a central information center on incubation, act as a reference point for incubators and SME entrepreneurs and use in the incubation development strategy.

CONCLUSION

Thailand's NIS is still at an early stage of development. The initial signs are encouraging. However, only time will reveal the success of various programs. It is clear that more needs to be learned from the success of incubators in other countries. With patience and perseverance, it is hoped that Thailand's SMEs will grow and flourish with a number of them making their names on the global stage.

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Pham Gia MinhTrung Minh Company Ltd.

"CREATIVE ENTREPRENEUSHIP" FOR BUSINESS GROWTH

Successful growth within any business is the product of a complex mix of variables that are both internal and external to the firm. Such variables are frequently called "enterprise resources" which include all assets, skills, capabilities, organizational processes, attributes, information or knowledge under the enterprise's control, that can used to develop competitive positional strategies.

Not all enterprise resources will be valuable in the development of competitive advantage. Those resources that do offer competitive advantage are critical to creative entrepreneurship in firms. Our empirical examinations show that the source of critical resources for creative Entrepreneurship is in the internal rather than external environment, and it is derived from the way an enterprise uses its resources creatively relative to its competition.

Successful growth within a small business is dependent upon the capacity of the owner to manage the expansion within the limits of his/her resources. The creative entrepreneurship resources found within the firm includes the financial, physical and human resources as well as the experience, leadership, ideas and control base of the entrepreneur. Key resource issues facing the growing small firm are the lack of technical and managerial skills, inadequate organizational adaptability, and the ability to acquire or use technology.

As the business grows owners must learn to transfer their own expertise and knowledge to their staff in order to free themselves for further developmental work on their business rather than in it. This requires the small business to shift from having an organization culture-based around the personality of the owner, to a "systems-based" structure that can successfully reproduce and maintain itself without the presence of the original owner.

MODEL OF SUCCESSFUL SMALL BUSINESS GROWTH

Drawing on our empirical studies of a group of 36 small firms (see table 1 on the demographics of the sample) over four year period in Vietnam (20 in the South and 16 in the North, 30% of them manufacturing and 70% service companies) we found a strong relationship between high growth and the group of four significant factors derived from the questionnaire survey.

Key Data Awareness

This factor consists of two variables. The first relates to the owner having clearly identified the critical information needed by them in order that they continually exceed their customers' expectations. The second concern whether or not the owner has examined how he or she gets business and identify what information they require.

Not Price Driven

It comprises of two variables. The first relates to whether or not an increase in the firm's prices will affect demand for its products. The second is whether price is considered to be a real factor in determining customer-buying decisions.

Table 1: The Demographics of the 36 Firms

No.	Title	Number of firms	Average age of business	Product service	Average No. of employees	Average age of entrepreneurs	
I	Manufacturing firms in the North Vietnam						
1	Food processing	3	7	Vegetable and food export	150	36	
2	Detergent and cleaning liquid	1	12	Bio-detergent powder and liquid	70	42	
3	Mining	1	9	CaCo3 powder	200	45	
II	Service firms in the	North					
1	Hotel	2	8	Hotel service	350	41	
2	Travel agency	2	12	Tourism	56	32	
3	Trading	2	10	Trading service	130	37	
4	Multimedia service	1	9	Multimedia	25	32	
5	Consulting	2	11	Law service	15	38	
6	Bank	2	15	Bank service	300	45	
III	Manufacturing firm	ns in South	Vietnam				
1	Portery & ceramic export company	1	12	Garden & interior portery	150	32	
2	Furniture companies	1	8	Furniture outdoor	500	38	
3	Seafood export	2	9	Catfish	800	42	
4	Building component & material	1	12	Construction structures	300	40	
5	Garment	1	10	Jeans	2000	47	
6	Agriculture production	1	10	Grape fruit	50	36	
IV	Service firms in the South						
1	Hotel	4	13	Hotel service	500	46	
2	Architecture design	1	8	Construction service	15	31	
3	Computer service	3	5	Maintenance	45	32	
4	Trading	3	7	Trading service	200	43	
5	Education	2	9	Vocational training service	55	47	

Business Generating System

This consists of four variables. The first is concerned with the owner's focus on growing their business by selling proven products or service to more customers. The second relates to the firm' capacity to plan for and allocate sufficient resources to the development of new markets. The third involves the owner' view that long-term prospects in their primary markets are excellent. Finally the last variable is whether or not the firm has effective business-generating system in the place to create new customers.

Use Experts and Family

It consists of two variables. The first is related to the owner's awareness of and ability to access grants and expertise available to assist their business. The second is a more personal one and concerns the owner's ability to make time for family and friends.

CASE STUDIES

In order to investigate this model of business performance, a series of case studies were developed with members selected from the original panel of 36 respondents. The purpose of these cases was to examine first hand, the relationship that appeared to be found in the data analysis. The application of each business was examined and the sample was divided into the high and low performing firms. In the following sub-sections two case studies are provided. These examples illustrate the relationship between the four key success factors and market performance.

Case Study 1 – Small Manufacturer

This small manufacturer has experienced substantial growth over the previous three years, expanding its employment base from six to 120 employees (including casual labour). The firm has also started a nation-wide expansion moving its operations interstate from South to North. Its product - an industrial building component – was sold to a small number of large customers usually involving three-year contracts.

In terms of 'key data awareness' the firm's owner made it clear that his company spent a substantial amount of time monitoring the activities of both his customers and competitors. His main competitor was a large international company with lower cost structures. Faced with such competition, the owner targeted six potential new customers. He spent time finding out what their requirements were and narrowed his field down to three who seemed to be favor his products over his competitors. By focusing on the needs of these three rather than all the six, he was able to secure three good contracts and left the rest of the field to the competitors. Constant environmental scanning by the owner was deemed crucial to avoid being 'wrong footed' by the larger competitors.

In terms of pricing, the firm had commended a premium price approximately 5 percent above the industry average. The owner did not consider that his company made 'super profits' but he did not compete on price for contracts and sought to make a better than average profit margins within his prices and is of the view that there is room to charge more.

The owner identified customer service as an important aspect of his 'business generating system.' He described customer service as 'one of the key planks in the company.' The owner indicated that he was still responsible for most of selling. He stressed the role of innovation in winning new business. He sought to provide his customers value-added by carefully monitoring customer needs. According the owner he

attempt to place himself in the customer's situation and think of what he can offer that is new or innovative. By doing this he was able to approach them and offer a solution to a problem. This had led to substantial dividends as he explained:

"We had a case recently where one of our competitors offered our biggest client much better price than ours. The customer told me this in his office. He had a big desk and he said all the paper on his desk represented problems that he was trying to solve, but not one of these problems related to my company so there wasn't any need to change. So that is the kind of thing that happens when you're willing to work hard on customer service."

In addition to servicing the needs of its exiting customers the company also devoted resources to the development of new products and new markets. The owner explained how he was seeking to empower his employees to assume greater levels of responsibility so he could be occupied with more strategic concerns. The interstate move was absorbing more of his time and he needed to establish entirely new business operations in these cities. He had to plan for this carefully to ensure that his existing operations did not falter. Team building within his company has become a key focus.

The company also demonstrated its willingness to use experts and family members to assist the business. According to the owner his wife was a major participant in the business. She joins him in sorting out various problems and he relies on her help. Equally important was the relationship he had developed with his bank. He describes spending two years developing a close working relationship with his banker. This was critical to his operations as the business had cyclical cash flows with higher sales during the summer months; four times larger than at other times of year. However, the company had to gear up borrow during the winter to fill its inventory so as to meet the summer orders. The bank had greatly expanded his overdraft facility enabling the company to meet its short-term debts and wages bills during the winter. This partnership with the bank is now a key element in the firm's success.

Case Study 2 – Small Service Firm

This small firm was engaged in high quality post-production work for television commercials, documentaries and film work. In recent years it has begun expansion into multimedia and website design. The company had grown strongly in recent years commencing with three staff and currently employing 13. The employment comprises of audio and video editors, and graphics specialists. Its customer base was small but consisted of about 100 to 200 key clients. Over the previous three years the company made substantial investments in new equipment and production facilities.

According to the owner, it was difficult to monitor key indicators as the environment – both internal and external – changed so rapidly. He expressed concern over the need to remain aware of such information and described how the company had originally performed around 90 percent of its work for the corporate sector and had now reduce this to 15 percent. The firm sought to monitor its customer satisfaction levels and had a well-defined customer service policy. These customer service levels had not been formally addressed within the company in its early years and the owner was since seeking to do so. He has introduced a formal system of monitoring customer satisfaction and held 'mini-seminars' for his staff using graphs to illustrate customer service performance.

In addition to monitoring the existing customers, the owner described how he was now monitoring the external environmental changes which are taking place within his industry. It was noted that some of his customers were beginning to establish 'in-house' facilities to do the work he had performed. Some of these customers are likely to become competitors over time. Therefore he is looking for new markets to generate new business. The company began to look overseas for opportunities and had set a 12-month horizon to achieve certain goals.

The company did attempt to "delight its customers" although this was not easy within their industry as "advertising people are quite fickle." As the owner explained:

"We try to handle their wants, like "I want" as opposed to "I need". We give better customer service than the average, like a car yard or whatever. We hope to constantly please customers but customers are always quick to find fault"

The owner was monitoring his financial information on the weekly basis and monitored his break-even points against it. In terms of prices competition, it is difficult within his industry to charge a premium price on all jobs. However, the owner indicated that his main aim was to work smarter not harder and this meant seeking those jobs that offered the better margins. His only suppliers were videotape manufacturers and therefore it was staff time that the company was essentially selling.

The owner also indicated that he was willing to use experts, family and friends to assist his business. He had a strong personal relationship with his accountant and worked with a business mentor to assist in business development. In addition to professional advice, the owner drew support from his circle of business friends and colleagues to discuss business related issues.

MANAGERIAL AND RESEARCH IMPLICATIONS

These two case studies are typical of several similar cases that demonstrate a link between the four-factor model shown in Figure 1 and business growth.

The four significant factors associated with the growth index measure used in the study highlight additional issues that the small business owner-manager needs to address. They suggest that the small business owner-manager seeking growth will need to gather "key data" on how they attract their customers and seek to monitor the level of satisfaction they deliver to these customers. The development of a "business generating system" will be important. This will require a focus on identifying long-term market opportunities and selling proven products or services into these markets. Attention will also need to be given to planning for new market developments that will require allocation of resources to achieve this.

To develop successfully in any market the small business owner-manager should avoid competition based purely on price. Avoiding being "price driven" will require adding value to products or services to enable customers to buy for reasons other than price and justify any premium prices charged.

Finally, the findings suggest that success growth can be assisted by use of experts and family. The owner-manager who can access expertise and other forms of support- e.g. grants-will widen their base of skills, ideas or resources. This is a partnering focus that should contribute to the small business growth process. Incorporated into this appears to be the need for the owner to consider holistic life planning, whereby they include time for family and friends in their activities. Given the important association that often exists

between family and business life for many small business owners, this would seem a logical consideration.

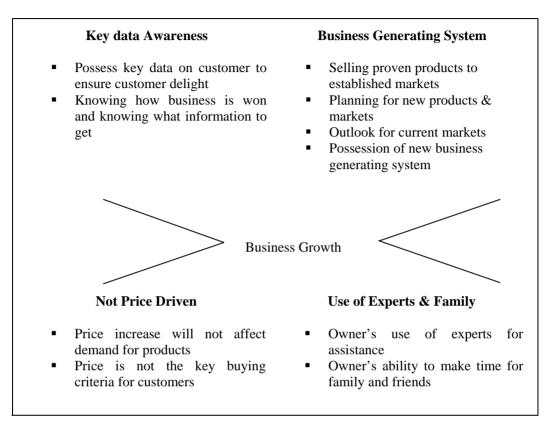


Figure 1: Four - Factor Model of Small Business Growth

The sample size and the use of sales growth as a dependent variable limit this study. A more robust measure of growth is required to fully examine the causal relationship between growth and the four factors. Future research into this model is planned using a larger sample. If the results can be replicated it can provide a useful framework for guiding small business growth.

List of Participants

India Mr. Kamal Dev

Deputy General Manager

National Thermal Power Corporation (NTPC)

Ministry of Power EOC Sector 24, Noida

New Delhi

Indonesia Mr. Susanto Joseph

Vice Secretary General

Employers Association of Indonesia (APINDO)

Plaza Great River 15 F

Jl. HR. Rasuna Said X-2 Kav. 1

Jakarta-12950

Islamic Republic of Iran Dr. Mahmoud Ahmadpour Daryani

Chairman of Entrepreneurship Center

University of Amirkabir No. 37, beside Art University

Shahid Balavar Alley opposite Daneshjoo Park Enghelab Street, Tehran

Republic of Korea Mr. Lee Yong Geun

President

Join Electrical Construction Co., Ltd.

8F, Hwaryun Bldg. 753-5, Bangbae Dong Seocho Gu, Seoul 137-060

Mr. Myung Kwan Kim Assistant Manager

Small Business Corporation

23-4, Yeouido-dong Yeongdeungpo-gu Seoul 150-718 Malaysia Mr. Zainal Abidin bin Othaman

Head

Business Training, Advisory and Promotion Unit

MARA Negeri Sembilan Majlis Amanah Rakyat 6F, Yayasan Negeri Building

Jalan Yam Tuan 70990 Seremban

Mongolia Mr. Dashdorj Banzragch

Chief Officer for International Settlement

Credit Bank of Mongolia Sukhbaatar Square

Ulaanbaatar

Nepal Mr. Sukunta Lal Hirachan

President

Federation of Contractor Associations of Nepal

Anamnagar, Kathmandu

Philippines Dr. Justino R. Arboleda

Chief Executive Officer

Coco Technologies Corporation

4 F, R&G Tirol Bldg.

831 EDSA Cor. Eugenio Lopei Street

South Triangle, Quezon City

Singapore Mr. Adrian Lim Meng Yan

Managing Director

The Young Entrepreneur Mastery Limited

35 Jalan Pemimpin

Wedge Mount Industry Bldg.

#05-02

Singapore 577176 Tel: 65-63231833 Fax: 65-63231838 e-mail: info@tyem.org

Dr. Aloysius Tay Ban Hock

Executive Director

Association of Small and Medium Enterprises

199B Thomson Road Goldhill Centre Singapore 307636 Sri Lanka

Mr. Samantha Sathischandra Wanniarachchi

Kumarasinghe

Chairman and Managing Director Multichemi Group of Companies

23B, Pagoda Road

Nugegoda

Thailand

Mr. Wiwat Chutiwanichayakul Senior Business Consultant Business Advisory Center Kenan Institute Asia Queen Sirikit National Convention Center 2F, Zone D, Room 201/6

2F, Zone D, Room 201/6 60 New Ratchadapisek Road Klongtoey, Bangkok 10110

Ms. Waleeporn Thanathikom Management Consultant

Thailand Productivity Institute (FTPI)

12-15 F, Yakult Bldg. 1025 Phahonyothin Road Phyathai, Bangkok 10400

Vietnam

Mr. Do Chi Thien Trading Manager Phu Lam Footwear Company 71C Ly Chieu Hoang Street 6th District, Ho Chi Minh City

Mr. Pham Gia Minh Director Trung Minh Company Ltd. Room 301, No. 32 Batrieu Street Hanoi

List of Resource Persons

Malaysia Dato' Mustafa bin Mansur

President

Federation of Malaysian Manufacturers

and

Group Chairman

Manentech-Bele Sdn.Bhd.

Wisma Belle

No. 18 & 20, Jalan Wanasa Taman Wanasa Permai 52200 Kuala Lumpur

Republic of Korea Dr. Moon-Kyum Kim

Professor of Entrepreneurial Finance Soongsil University School of

Entrepreneurship and SME Management

1-1, Sangdo-Dong, Dongjak-ku

Seoul

Singapore

(Chief facilitator-cum-resource person)

Prof. Tan Wee Liang

Professor

Singapore Management University

Tanglin Post Office

P.O. Box 257, Singapore 912409

Republic of China Prof. Kuang-Chao Fan

Professor

Department of Mechanical Engineering

Director

NTU Incubation Center National Taiwan University

Taipei 10617

Dr Chao-Tung Wen

Professor

Graduate Institute of Technology and

Innovation Management National Chengchi University

64. Zhi-nan road

Sec. 2, Wenshan, Taipei 11623

Mr Jackson Chang

Chairman

Inventec Appliances Corp.

37, Wugung 5th Rd., Wuzu Shiang

Taipei 248

Program and Schedule

Study Meeting on Creative Entrepreneurship [18–21 May 2004, Taipei, Republic of China]

Day 1 – Tuesday, 18 May 2004

Forenoon Opening Ceremony

Presentation by Prof. Tan Wee Liang

"Implementing Creative Entrepreneurship in Corporations"

Afternoon Presentation by Mr. Jackson Chang

"Product Innovation and Business Model: the Case of OKWAP Phone"

Country paper presentations (I)

Group discussion

Day 2 – Wednesday, 19 May 2004

Forenoon Presentation by Dr. Chao-Tung Wen

"Can Entrepreneurship be Taught? The Experience of Taiwan"

Presentation by Dr. K.C. Fan

"The Strategy to Create an Entrepreneurial Incubator: the NTU Case"

Afternoon Visit National Taiwan University Innovation Incubation Center

<u>Day 3 – Thursday, 20 May 2004</u>

Forenoon Presentation by Dato' Mustafa bin Mansur

"An Interface between Entrepreneurship, Creativity and Innovation: The

Malaysian Experience"

Country paper presentations (II)

Afternoon Presentation by Dr. Moon-Kyum Kim

"Creative Entrepreneurship and Innovation: The Korean Experience"

Country paper presentations (III)

Group discussion

Day 4 – Friday, 21 May 2004

Forenoon Syndicate discussion/

Outcome presentation by groups/summing up and closing