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Recommended Readings

References

Please note:

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Product Innovation

1. Introduction

Companies increasingly recognise the need to develop products that are attuned to local needs, in order to reach out to new markets. Product development comprises product design, among others, and includes the development of a new product, along with the plans for its production, distribution and sales. In turn, product development is a component of the product innovation process. Product innovation encompasses all activities that precede the adoption of a new product in a market.

2. What is Product Innovation?

Product innovation is the development of new products, changes in design of established products or the use of new materials or components in the manufacturing of established products. In simpler terms, product innovation involves the creation and subsequent introduction of a product which is either new, or improved version of a previous product.

3. Why Should Businesses Pursue Product Innovation?

Innovation is vital for businesses, as it allows them to gain a significant competitive advantage. It is also seen as a "company's ticket for the markets of tomorrow", as well as increases the value of a business in comparison to its competition.

Understanding and meeting their customers' needs are key elements for businesses. Hence, a cutting-edge product innovation may be a key to a successful and profitable business. Product innovation may also contribute to sustaining business growth, and helps to satisfy the evolving customer desires, needs and wants.

Some of the benefits of product innovation are;

- Increases new product success rate through metrics-based, continuous process improvement
- Improves customer satisfaction with new products that meet or exceed their performance and price point expectations
- Improve retention of best talent due to the implementation of appropriate recognition and reward for risk taking
- Increases research and development effectiveness through improved cross-functional integration and internal partnering

4. Key Elements of an Innovative Company

There are two key pillars of an innovative company;

- Company “fitness”
- Agility and leadership in the company

4.1 Company “Fitness”

The engine and fundamental element of the innovation process is the company itself, above all its manager and its employees. A company with a culture that is averse to innovations would negatively affect the innovation process.

It is important for entrepreneurs to ask themselves the following questions;

- How fit and agile is the company?
- What are the positive and negative trends within the company?

Entrepreneurs, who listen to their employees, understand their clients, anticipate market trends and have a stable network and connections within the industry are on the right path.

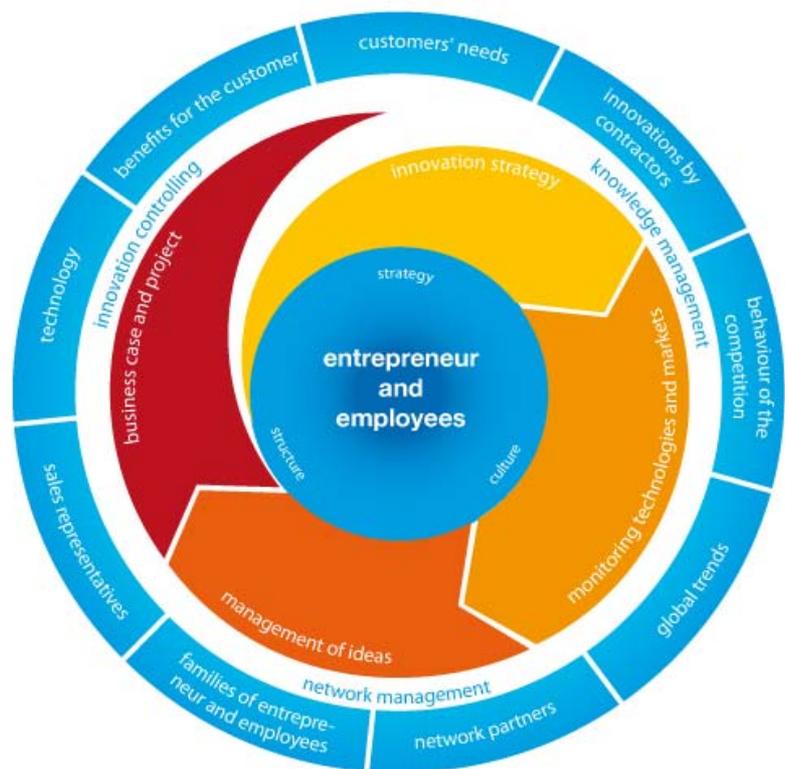
4.2 Agility and Leadership in the Company

Often, small businesses are subjected to a certain pressure to adapt, and having to continually adjust and re-adjust to new conditions. Such ongoing processes of adaptation require strong leadership by

example of the people in charge. Hence, it is crucial for leaders to act as a role model. Leaders should know and be aware of their personal and company's strengths and weaknesses.

5. The Product Innovation Process

The company and its employees, coupled with the corporate culture, strategy and structure, form the core of the innovation process. It is also important to note that there is feedback between the various phases, and important to understand that innovation is "rarely a linear progression through the phases". Feedback is gathered to further improve and refine the products, and often very important as the initial product is rarely perfect.



Source: The Swiss Research Institute of Small Business and Entrepreneurship, University of St. Gallen. (n.d.). *Innovationen im Kleinunternehmen*. Retrieved May 3, 2010, from <http://www.kmu.admin.ch/themen/01254/01262/01283/index.html?lang=en>

The product innovation process is an “iterative, step-by-step process”. An ideal innovation process begins with the innovation strategy, and comprises monitoring technology and markets, and management of ideas, among others.

Some of the factors that affect and impact the product innovation process are;

- Customers’ needs
- The benefits for the customers
- Global and technological trends
- Behaviour of competition
- The needs of intermediaries (immediate distributors and resellers)

5.1 Innovation Strategy

An innovation strategy provides the innovation process a place within the strategic orientation of a business. The strategy details clear targets and tactics, and sets the direction for the company.

An innovation strategy comprises;

1. Creating a culture of innovation
2. Encouraging employee innovation
3. Building innovation into business practices
4. Innovation and staff skills
5. Innovation and customers, clients and suppliers
6. Researching innovation elsewhere
7. Implementing innovative ideas
8. Monitoring the level and success of internal innovation

5.2 Monitoring Technologies and Markets

Companies need to keep up on the relevant developments and trends of the constantly evolving markets and emerging technologies. Vigilant observation, analysis and adoption are of decisive importance.

It is advantageous to visualise and assess the gained insights, focussing on the following three aspects;

1. Technology trends: Which trends are of essential importance to the business?

2. Market and customer trends: What is the market sentiment? How about customer satisfaction and customer needs?
3. Competition: Which strategic innovations are in the focus of the competition? Which new products, services or procedures do the competitors offer? How does the market appreciate their services?

5.3 Management of Ideas

Ideas without a systematic approach and proper classification tend to “fall by the wayside”. Thus, managing ideas form a central part of the innovation process. Ideas are shaped, developed and channelled. Ideas should also be developed in a goal-oriented way. “A useful basis for this task is formed by the insights concerning search areas which were gained from the innovation strategy and the strategic impact of technology and market trends”. These insights form the framework, guiding the selection of ideas.

The following questions need to be considered;

1. Who comes up with ideas?
Ideas often come from three groups of people; the entrepreneur (leader), employees or external persons such as customers, vendors, business partners, or public institutions such as universities, polytechnics, etc.

Some times, collaborations with external parties such as the universities may be beneficial as it promotes the transfer of knowledge between the two parties and is conducive to the innovation process.
2. How can creativity be encouraged?
Human creativity is influenced by three main factors;
 - (i) Individual abilities and self-motivation
 - (ii) Atmosphere
 - (iii) Influence of minorities within the business
3. What tools for the creation of ideas are out there and how useful are they?
There are various creativity techniques that can be adopted such as; brainstorming, mind mapping, etc. All of these techniques are

suitable to collecting, weighting and consolidating ideas.

5.4 Business Case and Project

“An innovation is only successfully completed once it has been introduced profitably into the market. Thus, ideas for innovations – developed by means of innovation strategy, technology and market observation as well as ideas management – have to be prioritised, their technology has to be described and their profitability has to be evaluated, all in light of the actual business case”.

A critical step in the development process of a product innovation is to evaluate it with the help of a business case.

The following points are the evaluation criterias;

- **Aims:** What is the basic aim and what are the customer benefits of the innovation?
- **Status quo:** What is new about the idea? Which components exist already? How about trademark rights?
- **Strategy:** Does the implementation strategy correspond to the general corporate strategy?
- **Risk:** Which risks have been identified? What are the consequences for the project? How likely is that any of the risks will occur?
- **Resources:** What staff resources as well as technological, financial, structural and knowledge-/experienced-based resources will be used and bound by the project?
- **Economic importance:** What is the market potential? What is the effect on liquidity planning? How are distribution and sales organised?
- **Perspectives:** What perspectives does the innovation open up for the company, the customers, the competition?
- **Project plan:** What is the course of action, what are the responsibilities and what is the time frame necessary for the realisation of the innovation?
- **Summary:** Summary of all findings on one page, possibly in the form of an analysis of strong versus weak points.

6. Challenges in Product Innovation

Product innovation involves risks and needs certain amount of resources to sustain it. Often, technology is the fundamental of innovation, hence, certain investment is needed for companies to acquire or incorporate the technology into their innovation project.

The process of turning ideas and concepts into sellable products can be very tough and challenging. Companies should prepare for the probability that sometimes concepts and ideas may not work out. Product innovation can also easily imitated, making it essential to protect the innovative idea, where possible.

Some of the other challenges are;

- resistance to change within the internal environment
- the need to shift strategic priorities
- lack of project ownership
- inability to engage stakeholders, in particular the customers
- fear of public failure

7. How Can Companies Innovate Successfully?

Product innovation can succeed or fail based on two primary factors;

- correct reading of the market and what matters to customers
- appropriate management of the innovation process

While focusing on the market factors is crucial, companies should not neglect the management of the innovation process.

Innovation Best Practices & Strategies

Before undertaking any product innovation projects, companies should look at all aspects of customer experience and aim to enhance them. Value adding areas such as product delivery, operations, etc. could be considered. Identify areas where value can be added by forward or backward integration.

1. Customers should enjoy and be pleased with the innovation, while meeting the demands of all

stakeholders. Businesses can consider introducing a new performance measure, “return on innovation investment” (ROI), that should be measured over a certain fixed time period.

2. Provide vision to drive the change process. Leaders should define the vision for putting in place innovation and communicate it to their employees.
3. Provide a risk tolerant environment. Businesses should be aware that not all ideas are workable, and prepare for failures. Nevertheless, employees should still be given recognition.
4. Establish life long learning orientation that involves all employees of the organisation. Employees should be given the freedom to choose their preferred projects to work on and time should be set aside, each week, for the employees to work on their ideas.
5. Support creative thinking in a diverse, information-rich environment. One of the first difficulties faced in the innovation process is to generate ideas. Employees should be exposed to various techniques to stimulate new concepts during their creative thinking processes. Businesses can consider conducting seminars or workshops, and provide access to journals.

Case Studies

Innovation at 3M

3M's revenue added up to US\$23.1 billion in 2009, and achieved US\$3.2 billion in net income in the same year. The company was placed at number 106 on the Fortune 500. In the first half of 2010, its sales grew 21%, and net income 43%.

3M has "long been synonymous with innovation". The company, which was founded in 1902, has deployed a range of practices to promote out-of-the-box thinking. Some of their product offerings include; Post-it notes, Scotch tape, Dobie scouring pads, and Ace bandages, among others.

At 3M, researchers are given up to 15% of their time to pursue their own ideas. The company also awards annual Genesis Grants, worth as much as US\$100,000, to company scientists for research.

Commitment to Innovation

It is crucial for all employees, in particular the top management of the company, to be committed to innovation. At 3M, billions of dollars are spent each year on research and development.

Corporate Culture

3M ensures that their corporate culture are always actively maintained. Although a new CEO is appointed every 5 years on average, the philosophy of former President and Chairman of the Board, William L. McKnight, is passed along by old-timers to every new scientist or engineer. Larry Wendling, Vice President of 3M's corporate research labs was quoted as saying, "Hire good people and let them do their job in their own ways. And tolerate mistakes."

Technology

Innovation is only possible with a broad base of technology. 3M claims to have leading know-how in 42 diverse technologies that allows researchers to take an idea from one realm and apply it to another. For example, 3M scientists have used a technology behind layered plastic lenses to make more durable abrasives, more reflective highway signs, and golf gloves that allow you to get a tighter grip without squeezing as

hard. Companies that remained "unidimensional," as Wendling puts it, typically run out of ideas after their first success.

Networking

The management at 3M has long promoted and encouraged networking, both formal and informal, among its researchers. Wendling calls this 3M's secret weapon. The scientists themselves formed an organisation called the Technical Forum in 1951. It invites all of the company's 9,700 R&D personnel to an annual symposium, where everyone can see what everyone else is working on. Labs also host their own conferences and webcasts and elect representatives to a governing body to set policy. The formal structure enables researchers to get to know one another informally, as well, so they know whom to call for advice or to team up with on a project.

Rewarding Employees

Set individual expectations and reward employees for outstanding work. The folks who call themselves 3Mers take pride in discoveries that lead to real-world products. Management reinforces this by fostering a dual-career ladder so veteran researchers can continue to move up without becoming managers. It also honours hundreds of employees – nominated and selected by their peers – for scientific achievements every year. And it gives the top 20 overachievers and their spouses a four-day holiday at 3M's corporate retreat in Park Rapids, Minn.

Quantifying Efforts

3M tallies how much of its revenue comes from products introduced in the past four years to judge whether its R&D money is being spent wisely. This way, management can assess which lab is hitting its mark and which may be falling short. After reviewing its data, the company centralised basic research from 14 centers around the world to its headquarters campus in 2003.

Understanding Customers

Research must be tied to the consumers. At 3M, employees spend a lot of time with customers to understand what their needs are so they can go back to the labs to come up with valuable products. The Post-it Photo Paper came out of such research. While digital photography is easy, 3M researchers

learned that most people store their images on a computer, which means they might have to scroll through them all to find a particular shot. And if consumers do print out their favorites, they often stuff them in a drawer, where they're just as hard to find. The solution: Photos that are as easy to display as a Post-it note.

Knorr: A Revolution in Stock

Knorr is the largest brand of the Unilever company. One of Knorr's successful and iconic products is its bouillon cubes, which are used around the world, to add the base flavour to dishes such as stews and soups.

The bouillon cube has been the familiar format, used for over a century. However, in 2007, Knorr launched its biggest innovation in stocks and bouillon; a little pot with an authentic bouillon named Knorr Stock Pot.

The jelly format of Knorr Stock Pot is a product, which resulted from the close interaction with its consumers. The product is very similar to home made bouillon in how it looks and smells, as well as how it is used. Chefs and product developers from Unilever had worked closely together for this product innovation, and the innovative technology has also been patented.

Knorr Stock Pot is easy to use and melts naturally into food, developing a great aroma and taste, while keeping the salt dosage in the end dish flexible. The protected packaging locks in the goodness of the bouillon, requiring no artificial preservatives. The product was first launched in China, where there was no bouillon cube market, and soup consumption is very high. The Chinese home-cooks love the convenient way to create the dense soups their mothers and grandmothers made. Meanwhile, home-cooks in the UK, Ireland, France, Spain, Belgium, Greece and many countries to follow are also expanding their repertoire and creating wonderful, wholesome dishes for their families.

Trek 2000 International Ltd: The Inventor of ThumbDrive®

Trek 2000 International Limited is the Singaporean company, which originally invented the ThumbDrive, a thumb-sized USB data storage device that revolutionised the way digital data on

personal computers is stored and transferred. The company was included in the Forbes list of “best small companies in the world” for 2000 and 2002, and named “best managed small company in Singapore” by AsiaMoney magazine.

Trek ThumbDrive®

In the late 1990s, the company’s current CEO and chairman, Henn Tan, along with his engineers, began exploring ways to create a data storage device that utilises the USB interface.

The ThumbDrive, which was developed in one year, is a thumb-sized external portable data storage device that utilises flash memory technologies to store digital data. The device provides convenient plug-and-play capabilities and can be connected directly to a computer via the computer’s USB port without the need for cables. It does not require a battery and derives its power through the USB connection. To the computer user, it functions like another hard disk drive as it allows users to drag-and-drop, read, create or delete digital files as easily as using a normal computer hard drive. As the ThumbDrive has no moving parts, it is considered to be more robust and durable than a floppy disk and thus ideal for use as a mobile storage device. It is also able to store a lot more data, as its memory capacity ranges from eight megabytes (MB) to more than four gigabytes compared to the 1.44MB capacity of a typical floppy disk. The ThumbDrive soon totally replaced the floppy disk as the default portable storage medium in personal computers. New personal computers and laptops no longer have floppy disk drives, only USB ports.

In 2000, Tan presented the Thumb Drive at the CeBIT international technology fair in Germany. Though his booth was shabbily decorated, with only a small cardboard proclaiming “The World’s Smallest Drive”, they were swarmed with many buyers. Response to the product was overwhelming. The success of the ThumbDrive propelled the company onto the global arena. It grew from a five-man outfit to a global enterprise. In the same year, Tan took his company public on the Singapore Exchange. Today, Trek 2000 has built up a portfolio of 161 patents, and has offices in the United States, Malaysia, Thailand, India, Hong Kong, Netherlands, China, Philippines, Vietnam and Japan.

Beyond the ThumbDrive®

Trek 2000 International Limited sets itself apart as the key differentiator in the digital industry through its creativity,

innovativeness and ingenuity. Trek has always been at the forefront of the digital industry, and it is reflected in the solutions it offers consumers.

Some of the newer models of the ThumbDrive also come with advanced technological features like biometric fingerprint authentication, data encryption and data compression functions. Trek also develops and markets other data storage products like hard disk drives and solid state drives that offer higher data storage capacities than the ThumbDrive and state-of-the-art security features. In addition to its own products, Trek also provides customised engineering design solutions that cater to the specific requirements and needs of its customers.

Among Trek's many strengths is its strong focus on research and development. Its library of patents numbered more than 600 as of 2008. This extensive library of patents allows Trek to derive substantial licensing income from its intellectual property.

Today, Trek has moved from its original "plug and play" technology to its new wireless "insert and play" capabilities, once again staying ahead of the market. In January 2010, Trek unveiled two more innovations, the FluCard and the i-Ball. The FluCard is a memory card in the form of a secure digital (SD) card that enables direct wireless transfer of image and video files between various electronic devices, including photographic equipment, digital photo frames and computers, as long as these devices come with compatible SD card slots for the FluCard to be inserted into. FluCard users can also upload their image files to the FluCard portal, an online storage space that lets users organise their images into digital photo albums. The i-Ball complements the FluCard and can be used to record videos and wirelessly transmit them from a remote location to FluCard-equipped devices.

Articles can be retrieved from NLB's e-Resources – <http://eresources.nlb.gov.sg>

Books are available at the Lee Kong Chian Reference Library.

Recommended Readings

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THE CERTIFIED PRODUCTIVITY PRACTITIONER COURSE

PRODUCTIVITY • COMPETITIVENESS • PROFITS

- What keeps you awake at night?
- Is it the constant pressure to generate a greater yield?
- Problems with leading productivity changes in the workplace?
- Need to improve the quality of your products and services?



Productivity is the answer to all these burning issues.

Entailing efficiency and effectiveness, productivity is crucial in fulfilling the raison d'être of all companies – delivering ever-growing business goals. It is imperative for business leaders to be constantly committed to productivity improvement and take the lead in driving productivity and innovation to sharpen the company's competitive edge by ensuring the most efficient utilization of resources at all times and consistently creating optimum value for customers.

Capabilities have to be developed to deliver higher productivity and training and education is required to develop those credentials and keep the cycles of improvement rolling.



The **Certified Productivity Practitioner** course is the answer to developing the awareness, concepts, skills and techniques, and most importantly, mindset, required to build up those capabilities.

Why CPP?

- It is focused on solving productivity issues at **the enterprise.**
- A **diagnostic approach** is taken, so that Strengths and Areas for Improvement are identified and interventions can be decided easily.
- It **teaches** productivity techniques, tools and methodologies.
- Participants will undertake a company project for their own company on a previously identified productivity issue, for which **project guidance** is provided.

"These sessions provided excellent insight into the fundamentals of productivity, history and importance of productivity in Singapore" – Neil Todd, Courts

"I recommend this course to those who want to know the overview of productivity implementation and its framework. Very experienced trainers make this course a must to attend before engaging on productivity journey." – Ng Lye Kiat, Acco Technology

About the Course

At the Singapore Productivity Association, we recognise that there may be specific industries that face different sets of KPIs from others. As such, the course content for the CPP will be contextualized for these industries. Currently, we have developed a general CPP course that will be suitable for most industries, as well as the CPP (Retail), which we have contextualized specially just for the Retail sector. The course content can be found below:

CPP (General)	CPP (Retail)
<p>Module 1: Understanding Productivity (Duration: 1 day)</p> <ul style="list-style-type: none"> • Introduction to Productivity and Quality Concepts • Factors Affecting Enterprise Productivity • Productivity Movement in Singapore • Productivity Promotion in Companies • Productivity Challenges <p>Module 2: Productivity Tools, Techniques & Management Systems (Duration: 3 days)</p> <ul style="list-style-type: none"> • Business Excellence • Productivity Measurement & Analysis • Process management: <ul style="list-style-type: none"> ▪ Cost of Quality ▪ Lean Six Sigma ▪ Process Mapping & Analysis • Integrated Management Systems <p>Module 3: Innovation & Service Excellence (Duration: 3 days)</p> <ul style="list-style-type: none"> • Knowledge Economy & Innovation • Service Excellence • Team Excellence <p>Module 4: Critical Success Factors (Duration: 1 day)</p> <ul style="list-style-type: none"> • Management Commitment • Managing & Sustaining Change • Overcoming Resistance to Change • Training and Education • Planning for Implementation and Control of Productivity Improvement Programme • Briefing on project assignment & Role of Productivity Practitioner 	<p>Module 1: Understanding Productivity (Duration: 1 day)</p> <ul style="list-style-type: none"> • Introduction to Productivity and Quality Concepts • Factors Affecting Enterprise Productivity • Productivity Movement in Singapore • Productivity Promotion in Companies • Productivity Challenges <p>Module 2: Productivity Tools, Techniques & Management Systems (Duration: 3 days)</p> <ul style="list-style-type: none"> • Delivering Service Excellence • Productivity Measurement & Analysis • Process management: <ul style="list-style-type: none"> ▪ Cost of Quality ▪ Lean Six Sigma ▪ Process Mapping & Analysis <p>Module 3: Service Excellence & Sales Productivity (Duration: 3 days)</p> <ul style="list-style-type: none"> • Introduction to Service Excellence & Sales Productivity • Store Management & the Roles of a Store Manager • Minimising Operational Constraints & Focusing on Sales • Setting Goals & Analysing Statistics • Coaching & Motivating Sales Staff • Service Behaviours that Encourage Business <p>Module 4: Critical Success Factors (Duration: 1 day)</p> <ul style="list-style-type: none"> • Management Commitment • Managing & Sustaining Change • Overcoming Resistance to Change • Training and Education • Planning for Implementation and Control of Productivity Improvement Programme • Briefing on project assignment & Role of Productivity Practitioner

As part of the CPP curriculum, participants are required to implement a productivity improvement project upon completion of the in-class component. Project guidance will be provided by a professional consultant assigned for this purpose and is for a total of 2 man-days.

Funding & Payment

The course is supported by the Singapore Workforce Development Agency (WDA). Funding is available at 70% and 50% of the course fees respectively for SMEs and MNCs/LLEs/Statutory Boards. Please find the prices payable in the net fee table below:

For SMEs:	Net Fee	Nett Fee with GST
SPA Member (S\$3,700)	S\$1,110	S\$1,187.70
Non-Member (S\$3,950)	S\$1,185	S\$1,267.95
For MNCs/LLEs/Statutory Boards	Net Fee	Nett Fee with GST
SPA Member (S\$3,700)	S\$1850	S\$1979.50
Non-Member (S\$3,950)	S\$1975	S\$2113.25

**Funding applicable for up to 2 participants (Singaporeans/PRs only) from any single company.*

Course Schedule

The schedule for the first quarter of 2011 is appended below:

Run 8: CPP (Retail)		
Date	Module	Time
Tuesday, 5 April 2011	Module 1	9-5 pm
Thursday, 7 April 2011	Module 2	9-5 pm
Tuesday, 12 April 2011		9-5 pm
Thursday, 14 April 2011		9-5 pm
Tuesday, 19 April 2011	Module 3	9-5 pm
Thursday, 21 April 2011		9-5 pm
Tuesday, 26 April 2011		9-5 pm
Thursday, 28 April 2011	Module 4	9-5 pm

8th Run (Target Participants - 25)		
Date	Module	Time
Wednesday, 30 March 2011	Module 1	9-5 pm
Friday, 1 April 2011	Module 2	9-5 pm
Wednesday, 6 April 2011		9-5 pm
Friday, 8 April 2011		9-5 pm
Wednesday, 13 April, 2011	Module 3	9-5 pm
Friday, 15 April 2011		9-5 pm
Wednesday, 20 April 2011		9-5 pm
Wednesday, 27 April 2011	Module 4	9-5 pm

Core Faculty Members

MR. WONG KAI HONG MBA IN STRATEGIC MARKETING (HULL), BSC (NUS)

Kai Hong is a business consultant, management trainer and company director. He has spent almost 2 decades in the consumer products industry, having worked with retailers like Isetan, Metro, Royal Sporting House, The Athlete's Foot and Sunglass Hut; brands like Reebok and Doc Martens; and technology group Wearnes Technology. He has been involved with various functions including operations, business development, project management, human resource, training, marketing, logistics, budgeting and general management. He has developed businesses in Singapore and many Asia cities such as Seoul and Beijing.

MR. LAM CHUN SEE B. ENG IN INDUSTRIAL & SYSTEMS ENGINEERING (UNIVERSITY OF SINGAPORE)

Chun see manages his own consultancy practice, Hoshin Consulting and is also an associate consultant/trainer to the PSB Corporation and Singapore Productivity Association. Prior to running his own practice, he has had years of experience as an industrial engineer with Philips, and trainer and consultant with the then National Productivity Board, APG Consulting and Teian Consulting. He was conferred the Triple-A Award in 1989 for helping to transfer Japanese know-how, particularly in the area of 5S, into local programmes and packages. Throughout his years of consultancy experience, Chun See has assisted many companies in analyzing their productivity and quality objectives and performance; primarily through the application of the PDCA technique and basic QC tools.

MR. LEE KOK SEONG M.SC. IN CHEMICAL ENGINEERING (IMPERIAL COLLEGE, LONDON UNIVERSITY), B.SC. IN CHEMICAL ENGINEERING (NATIONAL TAIWAN UNIVERSITY)

Kok Seong has accumulated vast experience in the areas of productivity training and management consultancy throughout his 30 years of experience with the Standards, Productivity and Innovation Board (SPRING). He has provided consultancy assistance and training for numerous organizations both within and outside of Singapore in the areas of Productivity Management, Operation and Production Management, total Quality Management, Total Productive Maintenance, Shopfloor Management, Occupational Safety Management, Industrial Engineering Applications and Supervisory Management. He has also been greatly involved in the pinnacle Singapore Quality Award (SQA) initiative since its inception in 1993. His track records include the assessments and site visits of award recipients like Micron Semiconductor (formerly Texas Instruments), Motorola, Baxter Healthcare, Philips Tuner Factory and Teck Wah Industrial Corporation Ltd. Mr. Lee is currently a certified SQA Senior Assessor, as well as a resource person for Basic and Advanced Training Courses for Productivity Practitioners, a position he has taken on since 2007.

MR. LOW CHOO TUCK

M.SC. IN INDUSTRIAL ADMINISTRATION (UNIVERSITY OF ASTON, UK); B.SC. IN PHYSICS (NUS); DIP IN QUALITY CONTROL INSTRUCTORS (INTERNATIONAL QUALITY CENTRE, NETHERLANDS); CERTIFICATE IN PRODUCTIVITY DEVELOPMENT (JAPAN PRODUCTIVITY CENTRE); CERTIFICATE IN ADVANCED MANAGEMENT DEVELOPMENT (INSEASD)

Choo Tuck currently provides training and advisory services in productivity and quality management to companies and government in the Asean region and Middle East. He was previously the Executive Director of the Restaurant Association of Singapore as well as the Singapore Productivity Association, and was also the Director for Strategic Planning in SPRING Singapore. During his many years of service with SPRING Singapore, he gained wide experience in productivity training, management consultancy and productivity promotion, and has helped more than a 100 companies in improving productivity, quality control and business excellence, including organizations such as Cycle & Carriage, Motorola, PUB and DBS. On top of that, he has also served as an Asian Productivity Organisation (APO) expert. On top of that, he has also served as an Asian Productivity Organisation (APO) expert on Productivity for several APO member countries, and was part of a team of experts engaged by the Singapore cooperation Enterprise to provide productivity expertise to the Government of Bahrain in 2007 and 2008.

MR. QUEK AIK TENG

B.ENG (HON.) IN MECHANICAL ENGINEERING (UNIVERSITY OF SHEFFIELD); DIP. IN BUSINESS EFFICIENCY (INDUSTRIAL ENGINEERING_ (PSB-ACADEMY); CERTIFIED MANAGEMENT CONSULTANT (CMC); PRACTISING MANAGEMENT CONSULTANT (PMC); MEMBER, INSTITUTE OF MANAGEMENT CONSULTANTS (IMC) SINGAPORE

Aik Teng currently manages his own consultancy, AT Consulting Services. One of his most recent projects includes being the LEAD Project Manager for the Singapore Logistics Association. Prior to running his own consultancy, he has been with SPRING Singapore for 20 years, and was the Head of the Organisation Excellence Department from 2004-05. He was also SQA Lead Assessor and Team Leader up till 2008 and has been involved in the SQA initiative since its inception in 1993. Tasked to start up the consultancy unit within the then Productivity & Standards Board (PSB) to provide training and consultancy services to organisations, his consulting team assisted close to 30 organisations during that period. He was also involved in a project coordinated by the Singapore Cooperation Enterprise (SCE) to assist the Bahrain Labour Fund in their Labour Reform strategy, which included helping the Bahrain government to initiate a Productivity Movement as well as develop the productivity of the local enterprises. In addition, he was appointed as Project Manager to assist the Government of Botswana to implement a national Productivity Movement, from 1994 to 2003. Botswana is currently held as a model of Productivity in the Pan-Africa region.

For more information on the course, please visit the Singapore Productivity Association at www.spa.org.sg, or write to us at CPP@spa.org.sg. Alternatively, you could also contact our secretariat:

Ms. Leanne Hwee Mr. Ashton Chionh
DID: 6375 0938 DID: 6375 0940

The Singapore Productivity Association Productivity Seminar

BASICS OF PRODUCTIVITY

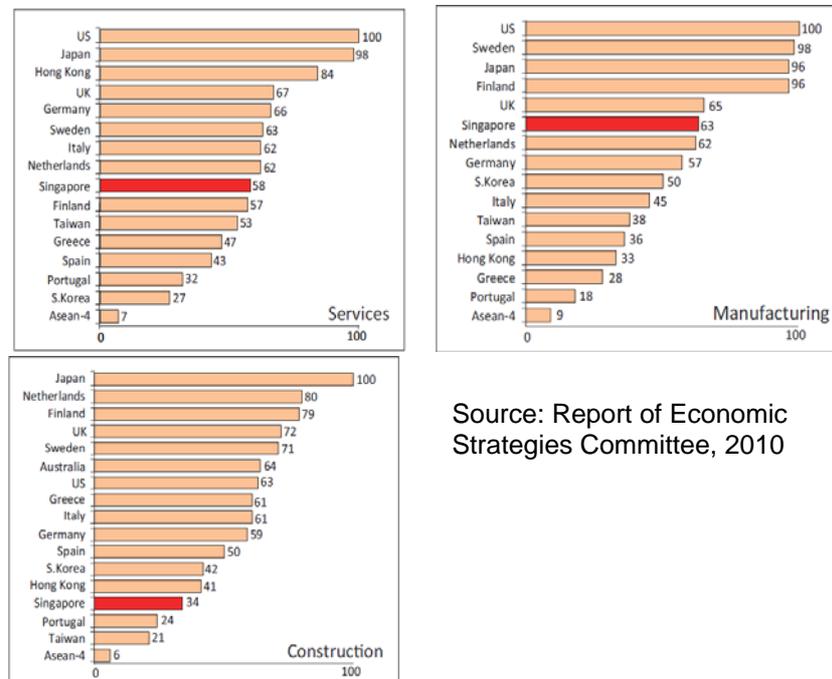
Why a Productivity Seminar?

Singapore businesses and the workforce are gearing up to address productivity challenges that have arisen in the past decade.

Key findings from the recently disseminated Report of the Economic Strategies Committee highlighted that:

“In absolute levels, Singapore’s productivity in manufacturing and services are only 55 to 65 percent of those in the US and Japan (see Figure 1). In the retail sector for example, our average level of productivity is about 75 percent of that in Hong Kong and one-third that of the US. In construction, productivity levels are half that of the US and one-third that of Japan.”

Figure 1: Cross Country Productivity Comparisons⁵



Source: Report of Economic Strategies Committee, 2010

What is the Seminar about?

The Singapore Productivity Association has developed this Seminar for the purpose of providing information to all parties on the basics of productivity. Specifically, the seminar aims to:

- Refresh – everyone on the meaning and concepts of productivity
- De-myth – explain what productivity is and is not, especially in the current day context
- Inform – about the Tools, Techniques and Methodologies

What would you learn?

At the end of the seminar, you would understand:

- the key productivity concepts, including how productivity is measured
- the relevance and types of tools available to improve productivity
- the way forward to implementing productivity in your company.

Who should attend?

This seminar is targeted at employee that needs to understand the importance and relevance of productivity at work. They may be involved in developing and managing; or are part of teams that implement Productivity initiatives.

Targeted employee could include:

- Managers
- Senior Executives
- Supervisors
- Senior workers with team leadership responsibilities.

When and Where would this be held?

Please look out for our schedule on our website: www.spa.org.sg or contact Ms Leanne Hwee at DID: 6375 0938; Email: leanne.hwee@spa.org.sg

How to register?

To register, please fill out our Registration Form here:

<http://www.spa.org.sg/images/events/downloads/RegistrationForm-PS.doc>

Contact us

For more information about the seminar or future runs, please contact:

Ms Leanne Hwee at DID: 6375 0938; Email: leanne.hwee@spa.org.sg

TEAM EXCELLENCE SYMPOSIUM – MARCH 2011 (1st Announcement)

The Team Excellence Symposium 2011 is here!

The Singapore Productivity Association (SPA) cordially invites you to our upcoming **Team Excellence Symposium** which will be held in **March 2011**.

The 4-days Symposium will be kicked off with a half day seminar on the insights distilled from the experiences of distinguished speakers and it will be followed by 3.5 days of presentation showcase by the various organizations. The event promises to be an insightful session for IQC practitioners to come together to network and exchange ideas and experiences.

The details are as follows:

Date	<p><u>Seminar</u></p> <ul style="list-style-type: none"> 29 March 2011 (Tuesday) 9.00am – 12.30pm (Registration starts at 8.30am)
	<p><u>Presentation</u></p> <ul style="list-style-type: none"> 29 March 2011 (Tuesday) 2.00pm – 5.00pm 30 March 2011 – 1 April 2011 (Wednesday – Friday) 9.00am - 5.00pm
Venue	<p>SPRING SINGAPORE 3th Storey Podium Block 2 Bukit Merah Central Singapore 159835 (Map attached with parking details)</p>

Programme Outline

Date		Morning	Afternoon
29-March-11	Tue	<i>Seminar</i>	<i>Presentation</i>
30-March-11	Wed	<i>Presentation</i>	<i>Presentation</i>
31-March-11	Thur	<i>Presentation</i>	<i>Presentation</i>
1-April-11	Fri	<i>Presentation</i>	<i>Presentation</i>

Please note that the programme is subject to changes

Registration Fee

Categories	Fee
Conference package ** 29 March – 1 April 2011	S\$180 per team (rate is subject to prevailing GST) ** includes free entrance to the seminar and its networking refreshment and lunch (max of 4 participants per team) and presentation sessions

Seminar highlights – 29 March 2011

Time	Programme topics
8.30am	Registration
9.00am	Welcome speech
9.10am	Teaming for productivity
9:50am	Enabling Team Innovation
10.30am	<i>Refreshment</i>
11.00am	Star Circle Presentation
11.40am	Sharing on ASQ World Conference on Quality and Improvement
12.20pm	Closing
12.30 - 2.00pm	<i>Networking lunch</i>

Please note that the programme is subject to changes

Registration

Please complete and return the attached registration form to:
6272 5095 (fax) or iqc@spa.org.sg (email)

Dateline: 9 February 2011(Wednesday)

Report Submission

- 3 sets of reports per team
- A copy of your report saved in a CD. Please indicate your organisation's and team's name on the CD.

Report format

- At least 10 pt font size,
- 15 page single-sided, A4 including annexes

Copyrights to the reports are assigned at point of submission unless otherwise stated by the organisations. Companies submitting reports containing trade secrets or issues discussing national security may wish to withhold the copyrights. The reports will be stored in an online repository for knowledge sharing purposes.

Payment details

- Cheque payable to “**Singapore Productivity Association**”

Dateline for Report and Payment submission: 25 February 2011 (Friday)

Mailing address:

Singapore Productivity Association
National IQC Convention Secretariat
2 Bukit Merah Central
#04-01 SPRING Singapore
Singapore 159835
Attention: Ms Hazel Wong

Thank you and look forwards to your participation at the Team Excellence Symposium March 2011!

For further details and updates, you may contact Singapore Productivity Association (SPA).

Ms Hazel Wong
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