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Business Innovations

1. Introduction

Due to factors such as globalisation and outsourcing, there is an increased push to improve efficiency and effectiveness of businesses. Businesses need more than good products to survive; they require innovative processes and management that can drive down costs and improve productivity.

2. What is business innovation?

Innovation is said to be central to a successful business and the catalyst to growth. It is not a single event or activity, but a process. Business innovation involves a wide spectrum of original concepts, including development of new ways of doing business, new business models, business application of technology and communications, new management techniques, environmental efficiency, new forms of stakeholder participation, telecommunication, transport and finance.

Innovation helps businesses to perform and grow by improving its efficiency, productivity and quality. However, it does not necessarily involve making a dramatic change, but can instead be started by improving old procedures.

3. Why is business innovation important?

Businesses that fail to innovate run the risk of losing ground to their competitors, losing key staff, or simply operating inefficiently. Innovation can be a key differentiator between market leaders and their rivals.

Through innovation, businesses can discover what opportunities exist now, or are likely to emerge in the future. Successful businesses not only respond to their current customer or organisational needs, but also often anticipate future trends and develop an idea, product or service that allows them to meet this future demand rapidly and effectively. Innovation will help businesses in staying ahead of their competitors as markets, technologies or trends shift. It is also recommended that

innovation is included as a key part of the overall business plan.

Innovation goes beyond designing a new product or service to sell. It can also focus on existing business processes and practices to improve efficiency, find new customers, cut down on waste and increase profits. Constant innovation and business practices improvements can also help to attract better employees and retain more of the existing staff, which is crucial to the long-term health and performance of the business.

Innovation is important as it is one of the primary ways to differentiate one's product from their competition. If one cannot compete on price, innovative products and ideas can make the business stand out from the crowd. Businesses can tap on innovation to develop a unique selling point. Consumers often see innovation as something that adds value to the company or its products. Hence, when used properly, innovation can give a commercial advantage, particularly in saturated or rapidly shifting markets. Customers may even be willing to pay more for a well-designed, novel and innovative product, rather than buying a cheaper, but less exciting rival.

Innovations can fall into one of three categories; incremental, complementary or disruptive.

Incremental innovations are small changes, additions and improvements that are added to existing products and services. Incremental innovations are added to products to extend the length of their lifecycle and keep them up to date.

Complementary innovations are new products or services that can be added to existing product lines. They add value to your product lines without having a negative impact on your existing products and services.

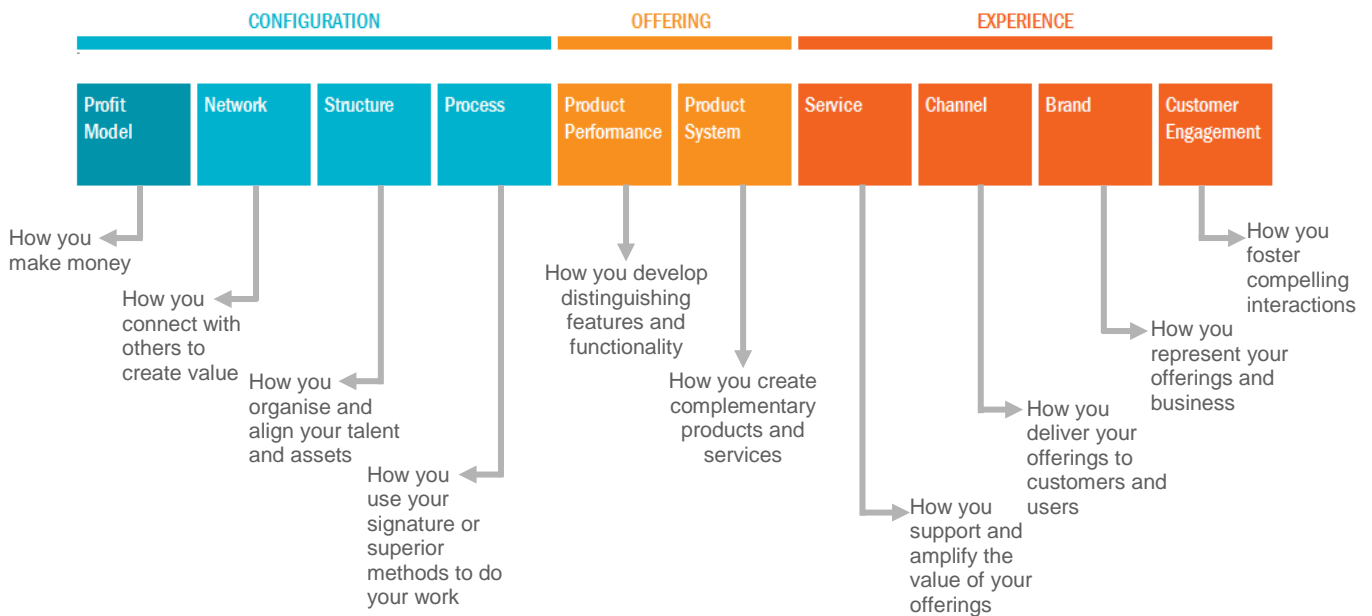
In contrast, disruptive (or radical) innovations replace existing products by being significantly better than anything currently offered in the market. They make existing products redundant and are adopted by the majority or even the entirety of the market.

4. Types of innovation

There are a number of different approaches that businesses can adopt. Typically, this depends on how much time and money is available, as well as the business strategy. These approaches can be part of a

continuous cycle or employed on a more ad-hoc basis, depending on the needs.

Below is the “Ten Types of Innovation” framework.



Source: Ten types of innovation: The discipline of building breakthroughs. (2013). *Dublin*. Retrieved May 31, 2013, from <http://www.dublin.com/tentypes/#framework>

4.1. Profit model

Innovative profit models find a fresh way to convert a business' offerings and other sources of value into cash. Great ones reflect a deep understanding of what customers and users actually cherish and where new revenue or pricing opportunities might lie. Innovative profit models often challenge an industry's tired old assumptions about what to offer, what to change, or how to collect revenues.

4.2. Network

In today's hyper-connected world, no company can or should do everything alone. Network innovations provide a way for businesses to take advantage of other companies' processes, technologies, offerings, channels, and brands – pretty much any and every component of a business. These innovations mean a business can

capitalise on its own strengths while harnessing the capabilities and assets of others. Network innovations also help executives to share risk in developing new offers and ventures. These collaborations can be brief or enduring, and they can be formed between close allies or even staunch competitors.

4.3. Structure

Structure innovations are focused on organising company assets – hard, human, or intangible – in unique ways that create value. They can include everything from superior talent management systems to ingenious configurations of heavy capital equipment. A company's fixed costs and corporate functions can also be improved through structure innovations, including departments such as Human Resources, R&D, and IT. Ideally, such innovations also help attract talent to the business by creating supremely productive working environments or fostering a level of performance that competitors cannot match.

4.4. Process

Process innovations involve the activities and operations that produce a business' primary offerings. Innovating here requires a dramatic change from "business as usual" that enables the company to use unique capabilities, function efficiently, adapt quickly, and build market-leading margins. Process innovations often form the core competency of a business, and may include patented or proprietary approaches that yield advantage for years or even decades. Ideally, they are the "special sauce" that can be used that competitors simply cannot replicate.

4.5. Product performance

Product performance innovations address the value, features, and quality of a business' offering. This type of innovation involves entirely new products as well as updates and line extensions that add substantial value. Product performance is often the easiest for competitors to copy. Product performance innovations that deliver long-term competitive advantage are the exception rather than the rule.

4.6. Product system

Product system innovations are rooted in how individual products and services connect or bundle together to create a robust and scalable system. This is fostered through interoperability, modularity, integration, and other ways of creating valuable connections between otherwise distinct and disparate offerings. Product system innovations help in building ecosystems that captivate and delight customers and defend against competitors.

4.7. Service

Service innovations ensure and enhance the utility, performance, and apparent value of an offering. They make a product easier to try, use, and enjoy; they reveal features and functionality customers might otherwise overlook; and they fix problems and smoothen rough patches in the customer user experience. Done well, they elevate even bland and average products into compelling experiences that customers come back for again and again.

4.8. Channel

Channel innovations encompass all the ways that connect the company's offerings with the customers and users. While e-commerce has emerged as a dominant force in recent years, traditional channels such as physical stores are still important – particularly when it comes to creating immersive experiences. Skilled innovators in this type often find multiple but complementary ways to bring their products and services to customers. Their goal is to ensure that users can buy what they want, when and how they want it, with minimal friction and cost and maximum delight.

4.9. Brand

Brand innovations help to ensure that customers and users recognise, remember, and prefer your offerings to those of competitors or substitutes. Successful ones distil a “promise” that attracts buyers and conveys a distinct identity. They are typically the result of carefully crafted strategies that are implemented across many touchpoints between the company and customers, including

communications, advertising, service interactions, channel environments, and employee and business partner conduct. Brand innovations can transform commodities into prized products, and confer meaning, intent, and value to the offerings and business.

4.10. Customer engagement

Customer engagement innovations are all about understanding the deep-seated aspirations of customers and users, and using those insights to develop meaningful connections between them and the business. Great customer engagement innovations provide broad avenues for exploration, and help people find ways to make parts of their lives more memorable, fulfilling, and delightful.

5. How to be innovative?

There are several different sources of new and innovative ideas available for businesses. For instance, employees are often the most valuable asset when looking to innovate. They are likely to have ideas and potential solutions to existing problems that they may face on a regular basis.

Apart from existing resources within the organisation, businesses can also involve stakeholders, suppliers, customers and business contacts in the innovation process as they are likely to have valuable insights and contributions to make.

Tips for being innovative in your business

- Research the market and customers; find out what the products or services they want and what they currently cannot get. Concentrate the innovation in these areas.
- Study the market to spot existing trends and target those that can be exploited.
- Look at what the competitors are doing. See if their successful processes can be applied to the business, or take advantage of anything that they are not doing well and which you could do better.
- Consider investing in a dedicated research and development team.

- Review the existing processes to see if there is anything that could be done better.

6. Promoting innovation in the business

It is important that the idea of innovation is promoted within the business, in order to become innovative. All departments and employees must be engaged with, and feel part of an innovative environment. However, it may not happen overnight. Innovation requires a commitment from leaders within the organisation. The following are the key areas to focus on.

Foster a culture of innovation and creativity

Innovation is a time-consuming and continuous process. It is important that the environment in which it takes place is supportive and open; encourages creative thinking and expression; rewards success; and does not dismiss ideas that are perceived to fail.

If employees do not feel free to express their ideas, or are afraid of criticism, creativity will quickly be stifled, and often staff or stakeholder engagement in the process will deteriorate rapidly. Encourage a team to approach to brainstorm ideas or consider creating other physical or online environments where team members can collaborate, share new ideas and be creative.

Motivate and focus on employees

The employees are likely to be one of the richest sources of new ideas and creative potential. When looking to innovate, it is important to devote time to listen to employees' ideas. Make them feel valued and motivated by asking for continual feedback on ways that processes can be improved.

Consider training the employees so that they can spot inefficiencies within the organisation, or potential new products or services the business could be involved in. A mentoring system can also be put in place to help employees develop and become more innovative. Mentoring staff can often lead to higher staff retention rates and the development of specific skills, and can increase profits through improved staff performance.

Case Study

3M

Innovation has always been the hallmark of 3M's growth. It reflects the culture of share ideas and technology.

Research and development

3M invests generously in research and development to fuel their innovation pipeline. The company's business model is to "foster organic growth" through the invention of new products that previously did not exist. This business model has led to beyond just new products. It has led to the creation of new industries, such as coated abrasives, pressure sensitive tapes, non-woven respirators and fluoromaterials. In order to foster such growth, the company recognises the value of R&D and allocates around six percent of its yearly revenue for that purpose.

Bold talent

3M encourages risk-taking and persistence among its employees. In today's fast-paced, pressure-packed business climate, many companies take a very short-term approach to the new product development pipeline. As innovation does not occur on a set timeline, 3M takes a different path – thanks in large part to the principles that former CEO, William L. McKnight instilled in the company.

McKnight believed in the imperatives of hiring the right people, tolerating mistakes and giving employees freedom to explore in order to foster a culture of innovation. 3M has put the McKnight Principles into practice by encouraging employees to dedicate a significant portion of their time to projects and research that go beyond their core responsibilities. Although it may take years for such innovative "tinkering" to bear fruit, the results of 3M's storied [15 Percent Time](#) are truly remarkable. Examples include Scotch® Brand Tapes, Post-it® Notes, Scotchgard™ Fabric Protector, automobile window treatment films, multilayer optical films and silicon adhesive systems for transdermal drug delivery.

Diverse technologies

3M creates uncommon connections with access to multiple 3M technologies. There are more than 40 technology platforms in as many combinations, for as many purposes across as many geographies in 3M. With more than 55,000 products, 3M continues to demonstrate an uncanny ability to combine highly innovative technologies in new and expected

ways. For example, dental technology applied to car parts, or nonwoven technology incorporated into kitchen cleaning tools and respirators.

3M has also pioneered unique ways to migrate its microreplication, adhesives and a multitude of other technologies to develop innovative solutions to everyday problems. While such innovation often yields end-user products, 3M's rich pool of technology is also incorporated into a vast array of solutions developed by outside partners, making their products more innovative and their businesses more successful.

Robust network

Applying innovative technology across a global company as diversified as 3M presents not only great opportunity, but also substantial challenges. As a company with more than 85,000 employees and operations in more than 60 countries worldwide, new developments are happening every day. Hence, communication plays as important a role as technical skill – enabling innovation to flourish without boundaries. For example, members of 3M's science community ignite the engine of innovation through the 3M Technical Forum. Founded in 1951, the Technical Forum unites more than 9,000 members of the 3M technical community, including theoretical mathematicians, human factors engineers, biological psychologists and scientists from around the world. This culture of cooperation, communication and cross-pollination of ideas among marketers, scientists and other employees generates enthusiasm to share technologies and best practices across 40 business units and 30 research labs around the world.

Rewards for employees

3M also rewards employees who drive innovation forward. 3M was one of the first companies to create a dual career ladder for scientists and managers that offered the 3M technical community the same prestige, compensation and perks as corporate management. 3M also rewards its innovators through several technical achievement programs, such as the Circle of Technical Excellence & Innovation, Genesis Grants Programme and the Carlton Society. The Carlton Society, named after former 3M President Richard P. Carlton, was created in 1963 to honour top 3M scientists who develop innovative new products and contribute to the company's culture of innovation in myriad ways. To date, more than 160 scientists have been inducted into the Carlton Society, which serves as an enduring reminder that innovation is cherished throughout 3M and remains integral to the company's success.

Measured success

3M measures accountability for investments. To enhance accountability for 3M's sizeable investments in R&D, the company sets various benchmarks for success and accountability. In addition to measuring financial success derived from new product growth, 3M looks at other areas such as business processes and intellectual property. For example, 3M regularly assesses how quickly a product comes to market, which technologies show the most growth opportunities and the number of patents issued. Through these various measures of accountability, 3M is better able to manage the return on investment for processes related to innovation.

Customer connection

3M develops products tied to unmet, and often unarticulated, customer and consumer needs. 3M stays ahead of the curve by regularly conducting empirical research and maintaining strong relationships with their customers and consumers on a regional, national and global scale. In fact, 3M has more than 30 Innovation/Customer Technical Centres around the world that are dedicated solely to conducting innovation processes with customers. Scientists and researchers observe behaviours, identify needs and take their thoughts back to the lab to marry new ideas with sophisticated technologies to ignite the next spark of innovation.

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

Feser, C. (2012). *Serial innovators: Firms that change the world*. Hoboken, N.J.: Wiley.
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Jones, T., McCormick, D., & Dewing, C. (eds.). (2012). *Growth champions: The battle for sustained innovation leadership: The growth agenda*. Hoboken, N.J.: Wiley.
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CPP Course Syllabus	
CPP	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 Businesses • 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 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: Innovation & Service Excellence (Duration: 3 days)</p> <ul style="list-style-type: none"> • Knowledge Economy & Innovation • Service Excellence • Team Excellence 	<p>Module 3: Innovation & Service Excellence (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 start 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\$185.00	S\$197.50
Non-Member (S\$3,950)	S\$197.50	S\$211.25

Here are the schedules for CPP:

(Retail)

May 2013		
Date	Module	Time
Friday, 3 May 2013	Module 1	9-5 pm
Tuesday, 7 May 2013	Module 1 & 2	9-5 pm
Thursday, 9 May 2013	Module 2	9-5 pm
Monday, 13 May 2013		9-5 pm
Wednesday, 15 May 2013	Module 3	9-5 pm
Monday, 20 May 2013		9-5 pm
Tuesday, 28 May 2013		9-5 pm
Wednesday, 29 May 2013	Module 4	9-5 pm

June 2013		
Date	Module	Time
Wednesday, 5 June 2013	Module 1	9-5 pm
Friday, 7 June 2013	Module 1& 2	9-5 pm
Wednesday, 12 June 2013	Module 2	9-5 pm
Friday, 14 June 2013		9-5 pm
Tuesday, 18 June 2013	Module 3	9-5 pm
Thursday, 20 June 2013		9-5 pm
Tuesday, 25 June 2013		9-5 pm
Friday, 28 June 2013	Module 4	9-5 pm

(Food)

May 2013		
Date	Module	Time
Friday, 3 May 2013	Module 1	9-5 pm
Tuesday, 7 May 2013	Module 1& 2	9-5 pm
Thursday, 9 May 2013	Module 2	9-5 pm
Monday, 13 May 2013		9-5 pm
Wednesday, 15 May 2013	Module 3	9-5 pm
Friday, 17 May 2013		9-5 pm
Tuesday, 28 May 2013		9-5 pm
Wednesday, 29 May 2013	Module 4	9-5 pm

June 2013		
Date	Module	Time
Wednesday, 5 June 2013	Module 1	9-5 pm
Friday, 7 June 2013	Module 1& 2	9-5 pm
Wednesday, 12 June 2013	Module 2	9-5 pm
Monday, 17 June 2013		9-5 pm
Wednesday, 19 June 2013	Module 3	9-5 pm
Monday, 24 June 2013		9-5 pm
Wednesday, 26 June 2013		9-5 pm
Friday, 28 June 2013	Module 4	9-5 pm

(Generic)

June 2013		
Date	Module	Time
Wednesday, 5 June 2013	Module 1	9-5 pm
Friday, 7 June 2013	Module 1 & 2	9-5 pm
Wednesday, 12 June 2013	Module 2	9-5 pm
Friday, 14 June 2013		9-5 pm
Wednesday, 19 June 2013	Module 2 & 3	9-5 pm
Friday, 21 June 2013	Module 3	9-5 pm
Wednesday, 26 June 2013		9-5 pm
Friday, 28 June 2013	Module 4	9-5 pm

July 2013		
Date	Module	Time
Monday, 15 July 2013	Module 1	9-5 pm
Wednesday, 17 July 2013	Module 1 & 2	9-5 pm
Monday, 22 July 2013	Module 2	9-5 pm
Wednesday, 24 July 2013		9-5 pm
Monday, 29 July 2013	Module 2 & 3	9-5 pm
Wednesday, 31 July 2013	Module 3	9-5 pm
Friday, 2 August 2013		9-5 pm
Tuesday, 6 August 2013	Module 4	9-5 pm

Core Faculty Members

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 businesses 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 organisations 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

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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 businesses 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 businesses in improving productivity, quality control and business excellence, including organisations such as Cycle & Carriage, Motorola, PUB and DBS. 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.

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 Asian cities such as Seoul and Beijing.

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