

Achieving Competitive Advantage Through Outsourcing in the SAF

by MAJ Mohamed Rizal

Abstract:

Increasing global cooperation, vertical disintegration and a focus on core activities have led to the notion that firms are links in a networked supply chain. The emergence of outsourcing in the supply chain to gain competitive advantage has been rampant and more significant in today's business. The motivations behind outsourcing are: cost-driven, strategy-driven, and politically-driven but there may be many significant risks resulting from outsourcing if it is not properly managed.

Keywords: Networked Supply Chain; Outsourcing; Risks & Benefits

INTRODUCTION TO SUPPLY CHAIN MANAGEMENT

Increasing global co-operation, vertical disintegration and a focus on core activities have led to the notion that firms are links in a networked supply chain. This strategic viewpoint has created the challenge of coordinating effectively the entire supply chain, from upstream to downstream activities.¹ While supply chains have existed for a long time, the notion of their competitive advantage, and consequently supply chain management (SCM), is constantly evolving across many disciplines such as purchasing and supply, logistics and transportation, marketing, organisational dynamics, information management, strategic management, and operations management. The emergence of outsourcing in the supply chain to gain competitive advantage has been rampant and increasingly significant in today's business. In a recent extensive outsourcing effort by the Singapore Armed Forces (SAF), private companies could take over the planning of training programmes, arranging of ammunition inventory and keeping count of test scores. Their duties include running the administrative services of the training management offices in 15 army training institutes, reviewing the curriculum in the army's training school and managing the army's training areas island-wide.

ROLES OF OUTSOURCING IN THE SAF'S SUPPLY CHAIN MANAGEMENT

Outsourcing is a major element in business strategy which is practised by both private and public organisations. It is much more common to outsource today as compared to a few decades ago. Outsourcing results in the supply chain function being performed by a third party. The decision to outsource is based on the growth in the supply chain surplus provided by the third party and the increase in risk incurred by using a third party. A firm should outsource if the growth in surplus is large with a small increase in risk. The motivations behind outsourcing are: cost-driven, strategy-driven, and politically-driven. Outsourcing non-core functions has enabled the SAF to focus on operational skills training and free up its combat-fit servicemen to focus on combat training. SAF initiates this supply chain practice so as to achieve a larger benefit, especially when national service stints are now shorter and enlistment rates start to fall in the coming years. Outsourcing has saved the SAF millions of dollars a year and is a key cost-saving measure.² However, there are many significant risks resulting from outsourcing if it is not properly managed.

The Drivers of Outsourcing (Cost, Strategy, Politics)

The drivers for outsourcing are cost, strategy and politics. The first two commonly drive outsourcing

by private industry while the political agendas often drive outsourcing by public organisations. In some cases, outsourcing may be initiated by all three elements at the same time.

Of all three elements, cost savings has always been the most popular reason for outsourcing today, especially in the SAF. In order to achieve competitive advantage, managers have to look into how to cut the cost of capital expenditure, such as having less infrastructure and support systems. Strategic management has emphasised that cost advantage is the primary basis for competitive advantage. The development of large corporations today is dominated by the quest for economies of scale. Companies are now forced to think more broadly and radically about cost efficiency. The challenges of operating efficiently and having better cost control are not an easy task for managers. Staying lean will mean having less employees while operating at the same level, which has a significant impact on morale. There is increasing evidence that cost savings have been overestimated and costs are sometimes higher after outsourcing.³ Outsourcing may result in low morale, high absenteeism, lower productivity, and so on.⁴

More recently, the main drivers for outsourcing appear to be shifting from cost to strategic issues such as core competence and flexibility.⁵ In order to establish a competitive advantage over rivals, a firm must refocus the allocation of resources to its core competencies and align its strategies to its internal resources and capabilities. When the external environment is subjected to rapid change, internal resources and capabilities must be managed tactically. Such outsourcing of non-core services to civilians is a common practice for advanced militaries. Other considerations to outsource are restructuring, rapid organisational growth, changing technology, and the

need for greater flexibility to manage demand swings. In the scope of product and services, outsourcing is a great tool for firms to react quickly to customer requirements. Firm also share risks with suppliers when they outsource, resulting in a partnership which enables all parties involved or “virtual organisation” to compete strategically.

Politically-driven outsourcing moves may be more social than economic decisions. A good example of politically-driven outsourcing is in the health and medical service industries. The service by the public laboratory is not given based on market demands or profitability but for the general well being of citizens. It is social hygiene needs which drive outsourcing. Government employees work for the public and keep their

In a recent extensive outsourcing effort by the Singapore Armed Forces (SAF), private companies could take over the planning of training programmes, arranging of ammunition inventory and keeping count of test scores.

interests primary. In contrast, private organizations are in the business of treating patients for a fee and are driven by cost and strategy. Both services may appear to be identical, but the products may be very different. Industry performs a service to make money whereas the public organisation attempts to ensure general well being; a different goal and mission. Other factors that may drive outsourcing by public organisations are that they are sometimes perceived as inefficient and bureaucratic—political candidates may promote outsourcing ideas, particularly at election time, to demonstrate their willingness to make positive changes in the district. Once laws are enacted, the public organisation has no choice but comply. In such situations the outsourcing drivers are the governing laws and executive orders, another recognised reason for outsourcing by public organisations.⁶ Better accountability and divesting of troublesome functions are other major reasons to outsource. Outsourcing by public organisations may be initiated for different reasons to those from private industry. While the reasons may be different, the desired benefits are often similar.

The Benefits of Outsourcing

The primary benefit of outsourcing is lowering cost by reducing capital expenditure and maximizing revenue. Other benefits vary from reduced capital infusion, transferring fixed cost to variable, quality improvement, increased speed, greater flexibility, access to latest technology and infrastructure, access to skills and talent, augmented staff, increased focus on core functions, getting rid of problem functions, copying competitors, reducing politic pressures or scrutiny, legal compliance and better accountability and management. Outsourcing also allows organisations to concentrate on their core businesses and gives access to specialized skills and services. The non-core business functions will be performed efficiently by their outsourcing partner, while their

core functions can be efficiently carried out in-house, “thereby you can achieve overall efficiency and see an increase in your profits. Some examples of outsourced services include call centre, data entry services and engineering services, healthcare services, financial services, software development, research and analysis services, photo editing services, creative services and web-analytics services.”⁷ The benefits of outsourcing are shown below in Table 1.

Outsourcing is a strategic tool which helps to eliminate the trouble of hiring and firing personnel as this is passed on to an external provider with whom one can work out a deal based on a certain output quantity/quality, a certain number of hours or any other type of commitment. In addition, it helps to save

No.	Benefits	Remarks
01	Cost Savings	<ul style="list-style-type: none"> • Cost difference in salaries, benefits, and operational expenses between most Western countries and offshore destinations like India, China, and the Philippines (cost-effective services). • Access to high-quality services cost-effectively. • Access to similar services with the same level of quality at much lower cost. • Increases in profits, productivity, level of quality, business value and business performance. • Removes the burden of changing or maintaining infrastructure. • Saves cost on investing in expensive software and technologies.
02	Expertise	<ul style="list-style-type: none"> • Benefits from expert and skilled services. • Gain more knowledge in other non-core functions areas such as in web designing and materials development. • Concentrates core business. • Diverts secondary processes to a specialised external provider. • Enables clients to cross-leverage skills and expertise across industry verticals and technologies to achieve greater efficiency and quality levels in the outsourced process.
03	Availability	<ul style="list-style-type: none"> • Provides a channel through which business can find available high-level expertise at affordable rates.
04	Flexible Capacity Management	<ul style="list-style-type: none"> • Enables companies to flexibly manage capacity and staff.
05	Time Zone Coverage	<ul style="list-style-type: none"> • Ability to cover time-zones that are not covered by domestic operation (time zone advantage). • Setting up a 24/7/365 operation is generally easier offshore. • Outsourcing partner can complete critical work and send it in the next day. • Off-shoring destinations like the Philippines generally have a workforce that is more willing to work non-regular office hours.

Table 1: Benefits of Outsourcing

on training costs, because organisations do not have to invest in manpower. The benefits of outsourcing can give an organisation a cutting-edge in the worldwide market, “countries such as United States (US), United Kingdom, Norway and Australia amongst others can benefit by outsourcing. The economy of these countries has increased tremendously after outsourcing. In the US, after the outsourcing boom, the economy has increased, jobs have increased and the wages of American workers have increased.”⁸

The Risks of Outsourcing

The risk associated with outsourcing is largely caused by the lack of guiding methodology for managers to manage and supervise outsourced functions. The potential risks of outsourcing are: unrealized savings with a potential for increased costs, employee morale problems, overdependence on a supplier, ineffective contracts, lost of corporate knowledge and future opportunities, loss of internal capability and growth

in third-party power, leakage of sensitive data and information, and dissatisfied customers.⁹ The risks of outsourcing are shown below in Table 2.

The initial step in setting an outsourcing solution always starts with properly analyzing your requirements and seeing how the benefits of outsourcing can be maximized and the drawbacks can be minimized. Overcoming drawbacks will rely on identifying the right business processes for outsourcing, finding the best outsourcing provider, and setting up a good structure for offshore operation. Managers can tackle these issues by doing their risk assessment, forecasts and planning more stringently. Managers must also understand that outsourcing fails because of inadequate requirements definition, a poor contract, lack of guidance in planning or managing an outsourcing initiative, or because of poor supplier relations. The SAF is well aware of this problem and is also cautious over the potential dangers of breach of

No.	Risks	Remarks
01	Management & Control Problems	<ul style="list-style-type: none">• Lack of face-to-face communication.• Managing and effectively controlling an offshore operation is difficult due to the geographical distances, time-zone differences.
02	Failure to Deliver	<ul style="list-style-type: none">• Unreliable third party may be unable to deliver a certain quantity/quality of deliverables on time.• Regardless of the Service Level Agreements (SLAs) you have in place, the third party may breach the agreements.
03	Exposure	<ul style="list-style-type: none">• Potential dangers of breach of confidentiality, malicious use of system access, and other vulnerabilities in your organisation.• Outsourcing the operating system may expose organization’s core business model.
04	Negative Reputation	<ul style="list-style-type: none">• The general public opinion is still that off-shoring eliminates domestic jobs.• Internal and external customers might not appreciate the fact that you are off-shoring certain business processes especially if that means that you are terminating a part of your domestic operation.
05	Company Value	<ul style="list-style-type: none">• Lowers values in terms of personnel, in-house knowledge, and infrastructure.• Internal strategies may be lost when some functions are outsourced.• Lowers productivity or efficiency in some functions.• Widens learning gaps or knowledge base which may preclude organisation from future opportunities.

Table 2: Risks of Outsourcing

confidentiality, malicious use of system access, and other vulnerabilities in areas of national security.

Successful Outsourcing Strategy

Jérôme Barthélemy noted that “while outsourcing is a powerful tool to cut costs, improve performance, and refocus on the core business, outsourcing initiatives often fall short of management’s expectations.”¹⁰ Managers have to consider some of the issues highlighted by Jérôme Barthélemy before deciding to outsource so as to avoid the common pitfalls of outsourcing. He also added that “outsourcing failures are rarely reported because firms are reluctant to publicise them.”¹¹ Hence, organisations also have to study from other firms with good records of outsourcing efforts and “best practices.” By applying the techniques correctly, managers can reap the full benefits of outsourcing in a supply chain management context. Failed outsourcing efforts as highlighted by Jérôme Barthélemy are shown in Table 3.

CASE STUDIES OF HOW OUTSOURCING HAS INFLUENCED SUPPLY CHAIN INDUSTRY

Fujitsu Drives Outsourcing for Toyota (IT Industry)

The Toyota Motor Corporation is the third largest automaker in the world and produces a full range of models, from mini-vehicles to large trucks. Global sales of its Toyota and Lexus brands, combined with those of Daihatsu and Hino, totalled 5.94 million units in CY2001. As of March 2002, besides its 12 own plants in Japan, Toyota has 54 manufacturing companies in 27 countries/locations which produce Lexus and Toyota brand vehicles and components, employing 246,700 people worldwide (on a consolidated basis), and marketing vehicles in more than 160 countries. Toyota Australia is one of these companies.¹²

As a medium-sized organisation, Toyota Australia was not justified in investing too much on manpower to support major IT activity. The decision to outsource was to stay flexible and take advantage of the latest developments in technology. An outsourcing contract signed between Toyota Australia and Fujitsu in 1997 resulted in 77 Toyota IT staff transferring to Fujitsu as full-time employees. In late 1997, Fujitsu has

managed Toyota’s mainframe and midrange data centre services, including the operation of a Fujitsu M780/20 mainframe. Toyota moved its legacy applications to a SAP/3 Enterprise Resource Planning (ERP) platform some years ago, and Fujitsu has the service support contract for these SAP operations. Fujitsu manages Toyota’s IBM AS/400 midrange machines, and it also supports the car manufacturer’s Parts Application Management System (PAMS) application. Fujitsu is now working with Toyota as IT manager to improve not only IT services, but also to assist Toyota to use IT as an enabler in improving its many business services.¹³

When the external environment is subjected to rapid change, internal resources and capabilities must be managed tactically.

The partnership has allowed Toyota Australia to focus on their core business and gain knowledge in other non-core functions areas such as the latest hardware and software. This has ensured that Toyota’s IT infrastructure is managed by Fujitsu professionals trained in the latest technology. Fujitsu’s global IT experience provides Toyota the IT capability, capacity and coverage they need to achieve and sustain competitive advantage in today’s rapidly changing business marketplace. Toyota Australia was able to increase profits, productivity, quality level, business value and performance. Having outsourced its day-to-day IT management and supporting functions to Fujitsu, Toyota can concentrate its energy on future strategies for systems without worrying about operational issues.

The caveat in this case study is that both companies have to maintain a healthy relationship and regular communication so as to avoid management and control problems. Toyota must accept the hidden outsourcing management costs and monitor the agreement to ensure that Fujitsu fulfill their contractual obligations. Bargaining with Fujitsu and sanctioning them when they do not perform according to the contract is necessary when unforeseen circumstances arise.

No.	Risks	Remarks
01	Outsourcing Activities that Should Not have been Outsourced	<ul style="list-style-type: none"> • Determine activities to be performed by a third party. • Understand where the firm's competitive advantage comes from. • Core activities should not be outsourced because firms risk losing competitive advantage and becoming "hollow corporations."
02	Selecting the Wrong Vendor	<ul style="list-style-type: none"> • Use both hard and soft qualification processes for vendor selection (good track records). • Hard qualifications assess the ability of vendors to provide low-cost and state-of-the-art solutions. • Important criteria may also include business experience and financial strength. • Soft qualifications focus on a good cultural fit, commitment to continuous improvement, flexibility, and development of long-term relationships.
03	Writing a Poor Contract	<ul style="list-style-type: none"> • Identify pitfalls in partnership management (trust-based relationships). • A good contract is essential to outsourcing success because the contract helps establish a balance of power between the client and the vendor. • Invest more time on the contract negotiation and ensure that the partnership relationships with the vendor are being monitored. • Drafting a good contract is always important because it allows partners to set expectations and to commit themselves in the short-term.
04	Overlooking Personnel Issues	<ul style="list-style-type: none"> • Manage employee morale and mindset. • Firms that contemplate outsourcing must face two interrelated personnel issues. • First, key employees must be retained and motivated. • A second personnel issue is that the commitment of employees transferred to the vendor must also be secured.
05	Losing Control Over the Outsourced Activity	<ul style="list-style-type: none"> • If poor performance can be attributed to poor management, outsourcing is not necessarily the right solution. • When an activity is outsourced, it is crucial to retain a small group of managers to handle the vendor. • These managers must be able to develop the strategy of the outsourced activity and keep it in alignment with the overall corporate strategy. • Vendor management and technical skills must be periodically evaluated in technological development areas so as to avoid outsourcing failure.
06	Overlooking the Hidden Costs of Outsourcing	<ul style="list-style-type: none"> • Companies often overlook costs that can seriously threaten the viability of outsourcing efforts. • Transaction cost economics (TCE) suggests two main types of outsourcing hidden costs. • First, outsourcing vendor search and contracting costs. • Second, outsourcing management costs: monitoring the agreement to ensure that vendors fulfill their contractual obligations, bargaining with vendors and sanctioning them when they do not perform according to the contract when unforeseen circumstances arise.
07	Failing To Plan An Exit Strategy	<ul style="list-style-type: none"> • Many managers are reluctant to anticipate the end of an outsourcing contract and often fail to plan an exit strategy (i.e. vendor switch or reintegration of an outsourced activity). • Managing at one end is long-term relationship where investments specific to the relationships have been made by one or both partners. • At the other end are market relationships where the client has a choice of many vendors and the ability to switch vendors with little cost and inconvenience.

Table 3: The Seven Deadly Sins of Outsourcing

Another factor Toyota Australia has to consider is planning for an exit strategy. Toyota Australia must establish for itself a choice of alternative vendors and the ability to switch vendors with little cost and inconvenience.

Dell Outsources to Keep Value-Added Jobs At Home (IT Industry)

At Dell, the trend is to outsource overseas and keep some of its offshore call centre operations in the US. According to a recent study by the University of California-Berkeley, more and more white-collar jobs are being outsourced overseas, especially to India. The effect of this trend could be the loss of as many as 14 million service jobs in the US. Jobs remaining in the US could be subject to pressure to lower wages, and the jobs that leave may slow the nation's job growth or generate losses in related activities. While *The Outsourcing Institute's Sixth Annual Index*

concludes that saving money is not as likely a reason to outsource as it was in the past, sending critical functions overseas is still mostly about saving money as shown in Table 4 below.

The table shows the average wage for telephone operators in the US is \$12.57 per hour while their counterparts in India are paid less than a \$1 an hour. Payroll clerks in the US are paid, on average, \$15.17 per hour compared with between \$1.50 and \$2 per hour in India. The pay differential for upscale financial jobs is equally huge. For example, accountants in the US are paid, on average, \$23.35 per hour compared with a range of \$6 to \$15 for their India-based peers. The disparity is even greater for financial researcher/analysts. Jobs most vulnerable to the new wave of outsourcing include medical transcriptions services, stock market research for financial firms, customer service call centres, legal online database research, payroll and other "back office" activities.¹⁵

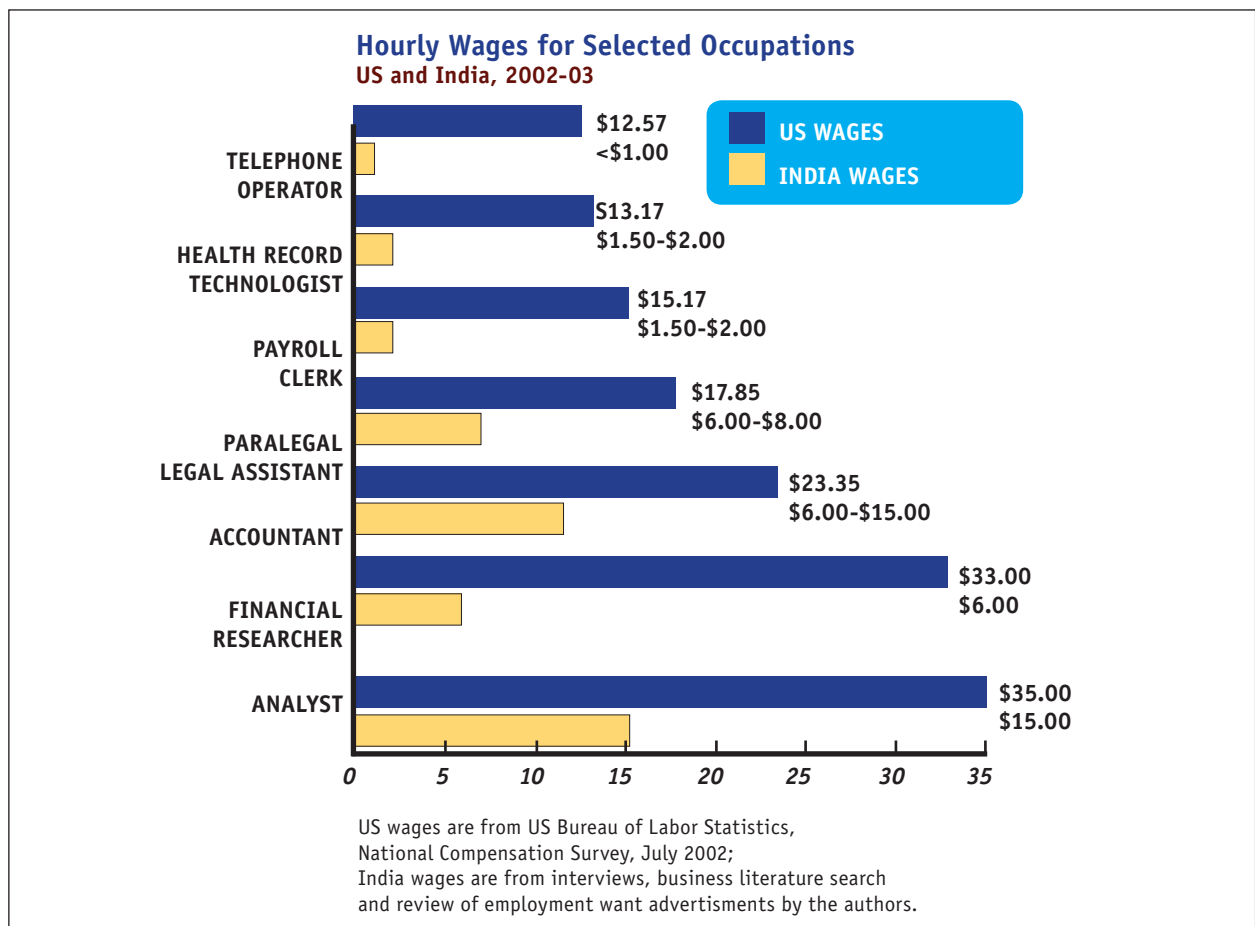


Table 4: US Wages vs India Wages¹⁴

The management problem for Dell is apparent: they may lose control over the outsource activity as their positions feature vulnerability-producing attributes such as a lack of face-to-face customer service, work processes that enable telecommuting and internet work, high wage differentials between countries, a high information content, low social networking requirements, and low set-up costs. It is crucial for Dell to retain a small group of managers to handle the operations overseas, develop strategy and keep alignment with the overall Dell corporate strategy. There is also a need for vendor management and technical skills to be periodically evaluated in areas of technical developments so as to avoid outsourcing failure.

Cost-driven outsourcing in India is popular due to its population's widespread use of English, institutional similarities with the US in its legal system, wide wage differentials with the US, and its large numbers of science and engineering graduates. In the current trend to outsource, value-added jobs are kept at home in order to achieve a competitive advantage and stay lean. Dell benefits from expert and skilled service at a lower cost and is able to entrust distracting secondary processes to specialised external provider. This allows the company to focus on maintaining their operations. Another benefit in outsourcing to India is the time-zone advantage, which allows Dell to complete crucial work and send it immediately the next working day.

Outsourcing Benefits in Various Business Sectors

There are different benefits and risks involved in outsourcing in the call-centre, supermarket and automotive industries and the SAF. Although the four businesses are different in nature, the reasons to outsource for these companies are similar, which is cost and strategic considerations. Core competence is a strategic factor that has attracted all these organisations to outsource in today's rapidly changing business marketplace so as to sustain a competitive advantage, increase profits, productivity, quality

level, business value and performance. Lack of internal human resources compels organisations like the SAF to make strategic decisions on how to shuffle, align and re-locate their workforce. The cost-saving on human resource allows all organisations to reduce their capital expenditure and maximize revenue. More importantly, organizations exposed to the latest technology can improve their products and stay competitive.

Core competence is a strategic factor that has attracted all these organisations to outsource in today's rapidly changing business marketplace so as to sustain a competitive advantage, increase profits, productivity, quality level, business value and performance.

For example, in the automotive industry, keeping up with the technology in audio equipment can be an expensive operation. The non-core business functions can be performed efficiently by the outsourcing partner, while the core functions can be efficiently carried out in-house. Therefore, it is better to outsource to a well-known audio company so that they can save on the indirect cost of maintaining infrastructure and support systems, which may result in a more nimble and efficient organisation. However, outsourcing may have an impact on the quality of an organisation's products and services. This may have a major effect on the organisation's reputation and directly impact profits and business. Outsourcing to a credible third party with business experience and financial strength is important for managers because internal strategies may be lost during the process. Organisations may also lose customers and opportunities, which indirectly affects employee morale. There are also the hidden outsourcing management costs and the need to monitor the agreement to ensure that vendors fulfill their contractual obligations.

Another factor to consider is flexibility in operations, resources and other strategic elements. Long contracts outsourced in a limited market have sometimes resulted in a loss of flexibility. Supply chain managers must have flexibility and ensure that there are plenty of vendors available so that they can switch vendors with little cost and inconvenience. For the case of supermarkets, they must have numerous product choices to meet consumer demands. If a particular product they have is bad, they must have the flexibility to replace that particular product with another brand. For example, the recent case of unsafe dairy products in China has caused some supermarkets to lose their business overnight. This is a classic example of the need for private and public organisations to switch vendors immediately in an emergency. Therefore, flexibility in vendor selection and planning for an exit strategy are important factors for managers seeking to attain business advantage.

The Issue of Technological Dependency in the SAF

Outsourcing in the SAF over recent years has led the organization to clearly define their core competencies in the business of war craft. As such, core competencies must be managed by a critical mass of expertise and be kept in-house so as to sharpen the organization's combative edge and long-term competitiveness. The increased reliance upon suppliers for critical support functions involves risks, as discussed in previous case studies. Therefore, there is a need to review in detail the actual extent of outsourcing benefits and risks periodically. One critical issue that impacts core competencies is that of technological dependency. During actual conflicts, the reliance on technology as a platform for critical decision-making can lead to problems of indecisiveness, inertia and loss of faith when things go wrong.¹⁶ The challenges faced during system failure will invariably mean going back-to-basics or substituting rudimentary approaches for achieving the same net effect and goals. Therefore, the SAF must develop greater mental preparedness and technical expertise in overcoming the problems. The

use of training technologies to enhance traditional operational training must focus on failure and stress management in operator training so as to ensure optimal combat performance in the event of system failure. One major concern that persists is the resilience of SAF damage control capabilities in responding effectively during failure or crisis. Resilience means retaining core competencies in well-trained personnel who can quickly, creatively and decisively bridge any hardware breakdown.

CONCLUSION

Outsourcing involves the partnership of client and provider. In larger and more complex outsourcing constructions, there may be multiple providers taking on different parts of the project. Organisations today are doing more outsourcing because managers are in desperate need of information in an organised form that will help them identify opportunities, challenges and decision factors relating to outsourcing. Outsourcing results in integration, complexity and also innovation. Although the drivers for outsourcing are primarily cost, strategy and politics, there are other factors that managers should consider such as function, specificity, structure, internal and external environments and business environments. Analyzing the risks, benefits and strategic issues will help SAF leaders reap the full potential of outsourcing in the supply chain industry. 🌐

ENDNOTES

1. Sunil Chopra, *Supply Chain Management: Strategy, Planning, & Operation*, 3rd ed, (New Jersey: Pearson Prentice Hall Press, 2007).
2. "SAF May Outsource Training Functions," *Straits Times*, 8 January 2011, A22.
3. D.J. Bryce and M. Useem, "The Impact of Corporate Outsourcing on Company Value," *Employees Benefits Plan Review* 49, no. 1 (1980): 36-37; B. Cole-Gomolski, "CIOs Split 50-50 on Outsourcing," *Computerworld* 33, no. 49 (1998): 41-42.

4. J. Eisele, "Opting for Outsourcing: Both Sides of the Story", *Buildings* 88, no. 7 (1994), 48-49; N. Kakabadse and A. Kakabadse, "Critical Review – Outsourcing: A Paradigm Shift," *Journal of Management Development* 19, no. 8 (2000): 670-728.
5. A. DiRomualdo and V. Gurbaxani, "Strategic Intent for IT Outsourcing," *Sloan Management Review* 39, no. 4 (1998): 67-80; D. Elmuti and Y. Kathawala, "The Effects of Global Outsourcing Strategies on Participants' Attitudes and Organisational Effectiveness," *International Journal of Manpower* 21, no. 2 (2000): 112-128; A. Harris and L. C. Giunipero, "Impact of Organisational and Contract Flexibility on Outsourcing Contracts," *Industrial Marketing Management* 27, no. 5 (1998): 373-384; W. M. Lankford and F. Parsa, "Outsourcing: A Primer," *Management Decision* 37, no. 4 (1999): 310-316; G. Meckbach, "Pros Not the Whole Story: Watch Out for the Cons," *Computing Canada* 24, no. 11 (1998): 25-26; R. Mullin, "Managing the Outsourced Enterprise," *Journal of Business Strategy* 17, no. 4, 1996: 28-32; J. B. Quinn, "Strategic Outsourcing: Leveraging Knowledge Capabilities," *Sloan Management Review* 40, no. 4 (1999): 9-21; V. Roberts, "Managing Strategic Outsourcing in the Healthcare Industry," *Journal of Healthcare Management* 46, no. 4 (2001): 239-249; L. Wright, "Market Viewpoint: Outsourcing is a No-Claims Bonus," *Insurance Brokers' Monthly & Insurance Adviser* 51, no. 1 (2001): 12-15.
6. Kakabadse and Kakabadse, "Outsourcing," 670-728.
7. "Outsourcing Benefits," *Microsourcing.com*, August 2013, <http://www.microsourcing.com/outsourcing-benefits.asp>.
8. "The Benefits of Outsourcing," *Outsourcing 2 India*, August 2013, http://www.outsource2india.com/why_outsource/articles/benefit_outsourcing.asp.
9. "Outsourcing Drawbacks," *Microsourcing.com*, August 2013, <http://www.microsourcing.com/outsourcing-drawbacks.asp>.
10. Jérôme Barthélemy, "The Seven Deadly Sins of Outsourcing," *Academy of Management Executive* 17, no. 2 (2003): 87-98.
11. Ibid.
12. "About Toyota," *Toyota Motor Corporation*, http://www2.toyota.co.jp/en/about_toyota/index.html.
13. *Fujitsu*, http://www.fujitsu.com/downloads/HK/case_toyota.pdf.
14. US Bureau of Labor Statistics, "National Compensation Survey," July 2002
15. "Outsourcing Keeps Value-Added Jobs at Home" *Outsourcing Essentials* 1, no. 4 (2003), <http://www.outsourcing.com/content/02i/other/oe/q403/saves-jobs.html>.
16. This brings to mind the Y2K Millennium Bug problem, as a glaring example of a "technological time-bomb" that looked set to deliver a crippling blow to many organizations world-wide if they did not successfully made their systems and processes Y2K compliant by then.



MAJ Mohamed Rizal is an Infantry Officer and currently Training Officer of BMTC School 1. He holds a Bachelor of Science in Management of Logistics from the National University of Dublin, Ireland.