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Print Post Approved 100004855
ABN 30 063 689 412

Volume 20 Number 1
January/February 2014
GLOBAL INFLUENCES ON
OPERATIONS MANAGEMENT

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Globalisation refers to the economic integration of countries due to reductions in barriers to trade and investment. These closer ties bring about an increased flow of goods and services throughout the world as well as greater movement of people, awareness of new cultures, the spread of technology and the availability of finance and flows of investment.

Government policies and technology have further facilitated the process of globalisation and resulted in the removal of trade barriers that have historically acted as impediments to trade and the movement of capital.

Globalisation impacts upon the operations function in business in a number of ways and an analysis of global operations factors provides the means to investigate how this has occurred. The major global factors that influence operations are shown in Figure 1.

Global Sourcing

Where a business sources its factors of production such as land, labour, capital and enterprise is significant to the operations process. Businesses that seek to take advantage of cheaper production opportunities overseas attempt to secure locations that offer the lowest cost in respect to these important factors of production such as labour and capital.

For those businesses that are interested in acquiring production facilities directly, then cheaper factory locations with lower start up costs, acquisition opportunities and government assistance will ‘win out’.

Access to cheaper labour continues to have a much greater role in the operations process. This includes identifying countries where outsourcing (or offshoring) is possible as it offers the opportunity to provide goods and services competitively. Many Australian businesses have taken the opportunity to secure costs savings that can be achieved through this operations process. Examples include Qantas with the relocation of its maintenance of aircraft to facilities in South East Asia and retailers such as Kmart sourcing garments in countries such as Bangladesh.

A number of developing countries located in the South East Asian region have emerged as meeting the low labour cost needs of Australian businesses. Many of them are emerging nations
Case Study 1: Outsourcing to India's Software Technology Parks

India has in recent times grown to be the location of choice for many businesses looking to offshore IT related BPO. A variety of factors have been integral to this including the capacity to provide high quality, customer driven and efficient delivery of services data and network security. It has also seen the rise of Knowledge Process Outsourcing (KPO) where more sophisticated skills are required in services involving engineering, remote infrastructure and research and development (R&D).

The banking, financial, pharmaceutical and legal services industries especially favour the use of businesses located in these developments. So entrenched has India become as the provider of such services it accounts for 65% of global offshore IT and 46% of global BPO.

The Software Technology Park concept emerged due to India's government identifying growth opportunities and export potential beyond manufacturing where it could take advantage of its large number of skilled workers in the IT industry.

The Australian financial institution, the ANZ bank, currently relies on such back office support in Bangalore, India where it currently employs 5,000 people in IT. They are involved in the delivery of its operations services including sourcing, accounts payable and human resources.


where a more literate and skilled workforce is becoming increasingly common, and they have become attractive destinations to outsource aspects of the operations process. Countries such as the Philippines and India have encouraged businesses to consider them as places where high quality production of goods and more recently services is possible.

The outsourcing of services to developing nations throughout the world is becoming more common and much of this can be traced to the ongoing development of information technology (IT) and the rise of Business Process Outsourcing (BPO) that is now a feature of economies such as those mentioned previously, many of whom have highly capable workers with good English speaking skills.

Most often seen in the call centre industry, outsourcing is now emerging in other industries including the quaternary or processing of information sector. It is these activities that rely upon little interaction between the customer and the service provider, where BPO works effectively for many Australian and global businesses. An example is the outsourcing of financial services illustrated in Case Study 1 of India's emerging Software Technology Parks and the importance of ITS to India (Extract 1).

Extract 1: The Importance of Information Technology Services (ITS) to India

The ITS industry in the Indian economy is the largest and fastest growing industry of the service export sector. In comparison to other emerging economies India has a large services sector in terms of its contribution to output and exports. The services sector in India contributes 56% of GDP and 30% of total exports. This contrasts with a country such as China where services exports represented only 9% of exports in 2011. The ITS sector in India is divided into three main industries:

1. Information technology services such as consulting, system integration and management.

2. Business process outsourcing such as call centre related services, finance and accounting. Call centre related services represent 25% of India’s total ITS exports.

3. Engineering design and product development services.
Table 1: Car Manufacturing in Australia 2012-13

<table>
<thead>
<tr>
<th></th>
<th>Ford</th>
<th>Toyota</th>
<th>Holden</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>90,400</td>
<td>218,200</td>
<td>114,700</td>
</tr>
<tr>
<td>Employees</td>
<td>2,750</td>
<td>4,400</td>
<td>3,700</td>
</tr>
<tr>
<td>Profit (loss)</td>
<td>-$141m</td>
<td>$149.1m</td>
<td>-$152.8m</td>
</tr>
<tr>
<td>Production models</td>
<td>Falcon 21,000</td>
<td>Camry 101,500</td>
<td>Commodore 51,500</td>
</tr>
<tr>
<td></td>
<td>Territory 16,000</td>
<td></td>
<td>Cruze 30,500</td>
</tr>
</tbody>
</table>


* Statistics for Ford and Holden are for the year to December 2012 and Toyota for the year to March 31st 2013.

The cost and availability of capital and entrepreneurial skills also required in the operations function can be seen as businesses seek finance in places other than Australia (with its higher interest rate costs and smaller pool of funds available for lending) and also where managers are sought for their experience in running successful international organisations.

Economies of Scale

The cost advantages that accrue to businesses that operate at a larger scale often influence the operations function. A global marketplace offers an opportunity to service a larger number of customers that will require larger production volumes, which can result in significant production costs savings for the business. For example, producing one standardised type of iPad for a global market generates a range of production savings for Apple Inc. and similar savings can be generated through its use of common packaging and advertising.

Other examples such as the demise of the Australian automotive industry have been due to a number of factors but its inability to achieve economies of scale is perhaps one of the most significant as shown in Table 1.

An investigation into the industry presented in the Bracks Report (2008) identified the minimum efficient plant size for car production is 300,000 vehicles. Australia currently produces about 200,000 vehicles and in comparison, countries such as China make 15.5 million, Japan 8.5 million, Germany 5.4 million, Brazil 2.6 million and France 1.7 million.

The recent decision by General Motors Holden and Toyota (and Ford before them) to cease operations within Australia beginning in 2017 was mainly a global operations and in particular a scale-based decision. The small scale-high cost Australian operations are seen as being too expensive by their parent companies to support any longer. The reasons given for the decisions by major car companies to close operations in the future include the following:

- Relatively high production costs (especially compared to Asian manufacturers).
- Lower levels of government protection and support, including free trade agreements with car producing countries.
- A small domestic market preventing economies of scale being achieved without high volumes of exports.
- A persistently high dollar has made imported cars relatively cheaper than locally produced ones, and negatively affected the sales of locally made cars such as Ford, Holden and Toyota.

Rising rates of import penetration of cheaper new cars has however benefited consumers through a greater range of makes and models of cars to suit their budgets and lifestyle. This is illustrated in Table 2 which lists the top selling vehicles in Australia in 2012, with only three Australian made models in the top ten selling vehicles.

All of these factors have combined with the problems of scale to make it too difficult to sustain a local Australian car industry in the longer term and the Abbott government refused to provide financial assistance to the industry.

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Table 2: Australia’s Top Selling Vehicles in 2012

<table>
<thead>
<tr>
<th>Car Type</th>
<th>Units Sold</th>
<th>Made</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mazda 3</td>
<td>44,128</td>
<td>Japan</td>
</tr>
<tr>
<td>Toyota Hilux</td>
<td>40,646</td>
<td>Japan</td>
</tr>
<tr>
<td>Toyota Corolla</td>
<td>38,799</td>
<td>Thailand</td>
</tr>
<tr>
<td>Holden Commodore</td>
<td>30,532</td>
<td>Australia</td>
</tr>
<tr>
<td>Holden Cruze</td>
<td>29,161</td>
<td>Australia</td>
</tr>
<tr>
<td>Hyundai i30</td>
<td>28,348</td>
<td>S. Korea</td>
</tr>
<tr>
<td>Toyota Camry</td>
<td>27,230</td>
<td>Australia</td>
</tr>
<tr>
<td>Nissan Navara</td>
<td>26,045</td>
<td>Spain/Thailand</td>
</tr>
<tr>
<td>Toyota Yaris</td>
<td>18,808</td>
<td>Japan</td>
</tr>
<tr>
<td>Ford Focus</td>
<td>18,586</td>
<td>Thailand/Germany</td>
</tr>
</tbody>
</table>


Scanning and Learning

Scanning and learning involves a business investigating the external business environment to gather information that can impact upon the strategic direction of the business. A business will need any information that will be helpful to its operations function so that it can achieve a sustainable advantage over its competitors. By scanning and learning, businesses are better equipped to respond to the challenges that may arise. It will usually entail an analysis of the actions of stakeholders such as competitors, customers, governments, technological developments, economic factors, and sociocultural influences to ensure better operations.

Scanning and learning on a local scale can occur through the gathering of primary data such as market research, secondary data through published material like ABS data, professional associations and informally through networking between managers at conferences.

From a global operations perspective, the scanning and learning may involve studying the feasibility of an export market or moving operations offshore. In the current highly competitive business environment, many businesses are looking to exploit opportunities through exports, or outsourcing to achieve cost leadership, or expand sales as others before them have done.

Selected Seeds in an example of an Australian business that has examined the global business environment and acted upon an opportunity to supply agricultural products and services to Pakistan, as outlined in Case Study 2.

Case Study 2: Selected Seeds Plants Itself in Pakistan

Pakistan’s population growth (250m people by 2050), abundant natural resources, close proximity to the highly populated and rapidly emerging economies of China and India, and its own burgeoning agricultural sector presents unique opportunities for any businesses able to provide it with the innovation and invention that will increase the quality of its agricultural products.

Selected Seeds has been a major exporter of pasture seeds since 1970. Its commitment to quality and existing trade relationships with countries in the United Arab Emirates region gave it the confidence to investigate the possibility of exporting its products to Pakistan. Its higher yielding seeds would provide farmers in Pakistan with an opportunity to increase production and achieve higher financial returns.

Its main product was a salt and drought tolerant seed that is able to withstand the difficult growing conditions that prevail in Pakistan. Its initial foray into the Pakistan market has provided Selected Seeds with the chance to gather information and learn from the experience to expand into other markets in the region such as Sri Lanka. What began with a meeting organised by Austrade’s Karachi based business manager was developed further by exploring the potential of agribusiness in Pakistan and countries nearby and has now grown into a major global success for the Australian business.

Table 3: Five Top Australian Companies in Terms of Spending on R & D in 2011

<table>
<thead>
<tr>
<th>Company</th>
<th>2011 Global Ranking (out of 1000 companies)</th>
<th>2011 R &amp; D Spending ($A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSL</td>
<td>317</td>
<td>$363m</td>
</tr>
<tr>
<td>OneSteel</td>
<td>563</td>
<td>$634m</td>
</tr>
<tr>
<td>Cochlear</td>
<td>727</td>
<td>$819m</td>
</tr>
<tr>
<td>Aristocrat Leisure</td>
<td>754</td>
<td>$850m</td>
</tr>
<tr>
<td>Amcor</td>
<td>815</td>
<td>$918m</td>
</tr>
</tbody>
</table>


In addition scanning and learning also affords organisations the opportunity to investigate other practices and processes that will assist businesses in gaining a competitive advantage.

Best practice refers to businesses identifying the approach that accords with what other similar, successful businesses are doing and implementing it. What works for some businesses can be used or adapted by others to ensure more efficient and effective practices.

The ISO 20000 standard provides businesses with an opportunity to match their expectations and capabilities with a global standard. It allows businesses to demonstrate excellence and best practice in the management of IT. Through a series of benchmarks businesses are given an opportunity to measure the delivery of their IT services. It is a model of searching for better ways of achieving higher standards. The American company CSC provides IT solutions to clients. It achieved certification in ISO 20000 in 2011 and has been internationally recognised as a leader in best practice initiatives for its clients.

Globalisation and the opportunities that it brings as more Australian businesses have exposure to how other international businesses are going about what they do will be the major advantage of scanning and learning from the business environment.

Research and Development (R&D)

Of some concern is that Australian companies are not major investors in research and development (R & D). In fact only five Australian companies rank in the world’s 1000 largest investors in R & D. Of the combined $960b invested globally in 2011, Australia accounted for less than 1%. The top five Australian companies are shown in Table 3.

Whilst Australian businesses’ financial commitment to R & D would appear minor by global standards, many renowned innovators such as Google and Apple also placed lowly on the list. Committing money to R & D for the sake of it will generate little benefit. A business must be ready to take this step and it is how the money is invested that is more relevant.

Many businesses it seems rely upon customers and market research for ideas on new product design and innovation and the federal government is cognisant of this. It seeks to entice Australian businesses to give greater consideration to innovation and invention through taxation concessions.

The R & D Tax Incentive aims to give Australian businesses support as they undertake research and development through concessions from the Australian Taxation Office and with the support of AusIndustry.

A number of Australian businesses have benefited from this initiative including FreshBins as illustrated in Case Study 3.

The government has also been urged to become more actively involved in R & D due to its success in developing and supporting innovative businesses such as Commonwealth Serum Laboratories (CSL) and Cochlear.

Further, support for businesses and their R & D effort could come from local universities. Bill Scales, the chancellor of Swinburne University of Technology in Melbourne, has suggested that businesses should engage with these institutions when looking to innovate. He believes that many solutions to R & D are in Australia and that the university sector has many innovators that are capable of assisting local businesses. This partnership between academic researchers and business can lead to the development of new products and processes which may be capable of export to the global market and benefit consumers in other countries.
Case Study 3: R & D at FreshBins

FreshBins is a company that uses specially designed and fitted bin cleaning trucks to clean household, commercial, local council and government bins. It is able to do this by using just one cup of water per bin (it can take anywhere between 20 and 100 litres of water to clean a bin by hand) and in doing so makes the use of bin liners redundant.

R & D support from the Commonwealth government through Australian Taxation Office concessions and additional help from AusIndustry have combined with the owners’ commitment to explore opportunities for a less hazardous process of rubbish removal.

This has resulted in a 3-D robotic system that utilises chemical free cleaning and sanitising processes to remove all toxins and bacteria from bins. It is environmentally friendly, ensuring that all waste is treated before being recycled and the process meets the United Nations’ Agenda 21 commitment to sustainable environments.

Three years of R & D have gone into the development of the truck system that enables a more effective and efficient cleaning process. Freshbins has also used the funds to further develop its technology to explore global opportunities and has become a world leader in the use of 3-D robotics and ozone sterilisation.

Source: “FreshBins Cleans up with Research”, www.ausindustry.com.au

GLOBAL INFLUENCES ON OPERATIONS MANAGEMENT: REVIEW QUESTIONS

1. Outline the role that government policy and technology has had on the rate of globalisation.

2. Analyse the role of sourcing cheaper labour on global operations.

3. How does the Australian automotive industry illustrate the concept of economies of scale?

4. Discuss the reasons for Ford, Holden and Toyota making the decision to close down their car manufacturing operations in Australia in the future.

5. What is meant by scanning and learning? How did Selected Seeds (refer to Case Study 2) utilise scanning and learning to expand its business?

6. Why is ‘how’ the money spent on research and development, more important than the total amount?

DEFINE THE FOLLOWING TERMS AND ABBREVIATIONS

- business process outsourcing
- economic integration
- economies of scale
- entrepreneur
- free trade agreement
- globalisation
- knowledge process outsourcing
- outsourcing
- parent company
- scanning and learning

BPO
IT
ITS
KPO
R & D

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Operations Strategies and Supply Chain Management

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Director, Tim Riley Publications Pty Ltd

Operations

Operations refers to the transformation of inputs into outputs by businesses. Operations is sometimes referred to as production because it is in a firm’s production process where goods and services or outputs are produced, made or delivered. Operations takes place in agricultural, mining, manufacturing and service industries where physical products and commercial, professional services are produced for consumers.

The types of inputs used by businesses in their operations include raw materials, labour, capital equipment, management and technology. These inputs are combined to produce a saleable good or service for consumers in markets. These markets may be retail and wholesale markets for goods and services.

Operations strategies refer to the methods used to control operations processes and are important in supply chain management. Supply chain management refers to the linkages between a business and its main suppliers of inputs such as raw materials, specialised services such as accounting and finance, utilities (such as electricity and telecommunications), capital equipment such as computers and cars.

Performance Objectives

In terms of operations there are Key Performance Indicators (KPIs) which management will try to achieve and these include the following:

- Quality of products and services in terms of design, durability and meeting the needs, tastes and preferences of consumers.
- The reliability or dependability of supply and maintenance of quality products and services.
- The timeliness or speed with which goods and services are produced and supplied to consumers in markets.
- The flexibility of supply in terms of how quickly operations processes can be adjusted to meet changes in market demand and the state of the economy.
- Customisation refers to the creation of individualised products or services to meet the particular needs of consumers.

Figure 1: The ‘Sand Cone’ Model  (Source: Ferdows and de Meyer, 1990)
The minimisation of costs and cost savings in operational processes which can be passed on to consumers in the form of lower prices.

Putting KPIs together for operational excellence has led some researchers such as Ferdows and De Meyer to develop the ‘Sand Cone’ model. This model is depicted in Figure 1 and shows that existing capabilities in one area of operations can reinforce ‘capability building’ in other areas if they are developed in a particular sequence.

Comparing the operations of businesses in Europe, North America and Japan, Ferdows and De Meyer suggested that this order should be quality, dependability, speed or flexibility and cost efficiency. These Key Performance Objectives need to be achieved over time to support the operations process of transforming inputs into outputs as illustrated in Figure 2.

Operations Strategies

Operations strategies involve techniques which can be used to achieve the Key Performance Indicators or objectives of operations management. They include the following:

- New product or service design and development.
- Supply chain management including logistics, e-commerce and global sourcing.
- Outsourcing of key business functions including operations.
- Technology such as established and ‘leading edge’.
- Inventory or stock management.
- Quality management.

Overcoming resistance to change including financial costs, purchasing new equipment, redundancy payments to displaced workers, reorganising plant layout and inertia on the part of management and workers.

- Global factors such as sourcing, economies of scale, scanning and learning and research and development.

New Product or Service Design and Development

A key operations strategy is the design and development of new products and services in markets. New products and services may complement or replace existing products and services and are important in maintaining a business’s competitive advantage. Product design and development is based on innovation and research and development (R & D) where a prototype is designed and tested before the product or service is ready to be standardised or customised for the market:

- The new product or service must be superior to existing products or services.
- Capable of mass production and distribution.
- Appeal to existing and new customers.
- Deliver a substantial return to the business for the funds invested.

Smart phones are a good example of a new product accompanied by the development of specialised ‘apps’ which meet all of the above features. They have replaced existing mobile phones because of their speed, versatility and convenience allowing consumers to use them for a variety of purposes including shopping, banking and entertainment. They appeal to existing and new customers, are superior to existing products and services and deliver substantial financial
returns to suppliers and service providers. They also help to increase economic efficiency because they save time and have such widespread functionality.

Wotif.com is an example of a service innovation developed by Graeme Wood in 2000 which has revolutionised the travel industry in Australia and abroad. The idea of matching vacant hotel or accommodation rooms at discounted prices with travellers underpins a major process innovation using the Internet.

Supply Chain Management

Businesses rely on suppliers for goods and services including raw materials, finance, accounting, transport and communications. Supply chains refer to the linkages that exist between suppliers, businesses and consumers. Supply chains have become quite complex and sophisticated in terms of the number of items involved, the geographic scope of markets, changes in technology and the interdependence between businesses.

Supply chain management is managing the entire flow of information, materials and services from raw material suppliers, factories, warehouses, shops and offices to the final consumer. This is a complex process especially for large companies because of the volume and complexity of the products or services sold. There are two important considerations in supply chain management:

1. The need to achieve economies of scale in transportation and handling to minimise costs and maximise efficiency.
2. The need for accurate forecasting of the materials needed in terms of current and future levels of consumer demand.

Logistics involves low cost transportation of unit loads such as containers and pallets and quick service response times. This involves towns, cities, regions, states or provinces and countries having well developed transport infrastructure such as roads, railways, shipping and ports, airports and telecommunications networks to facilitate the flow of goods and services to consumers.

For example major supermarket chains such as Woolworths and Coles have their own fleet of trucks to pick up and deliver products. They maintain storage and large distribution centres to consolidate orders and dispatch goods to their stores daily, helping to meet demand and at the same time reducing the cost of distribution and transportation.

The typical supply chain in Australia for retail goods is shown in Figure 3. According to the Reserve Bank (2014) the main ‘drivers’ of retail prices are threefold: the cost of goods sold; the wholesaler’s gross margin; and the retailer’s gross margin:

- The cost of goods sold includes all costs associated with purchasing stock such as the price paid to the producer of the good, import tariffs and the cost of transport. Research suggests that costs account for around 50% of the final sale price of a good.

- Wholesalers’ gross margins are the difference between the price of the good sold by the wholesaler (typically to retailers) and the cost of the good sold. This covers the wholesaler’s cost of doing business - labour costs, rent, freight and inventory holding costs - as well as a profit or ‘net’ margin.
The retailer’s gross margin is the difference between the final sale price and the sum of the cost of the good sold and the wholesaler’s gross margin. Retailers’ gross margins cover their own costs of doing business, with the remainder earned as profit. Estimates suggest that, on average, retailers’ gross margins account for around one third of the final sale price of a good.

E-Commerce

The rapid spread of Information and Communications Technology (ICT) has changed the way that business is done by providing consumers with more flexible means to buy goods and services, and for businesses to advertise and buy goods and services required as inputs in the operations process:

- Communications between businesses and their customers through online websites allows for online purchasing and payment which has driven the growth in online shopping.
- The Internet allows for communications between businesses in terms of ordering (e-procurement), scheduling and accessing technical and design support which enhances efficiency of some operations functions.
- Internal communications within businesses through the intranet, Enterprise Resource Planning and data warehouses promotes interaction between key business functions such as marketing, finance, operations and human resources.

Global Sourcing

Global sourcing is an operations strategy where businesses may source some of their inputs in the supply chain from cost competitive producers overseas such as in India or China. The Internet and ICT make this a competitive strategy since manufacturers in China or service providers in India may have lower labour costs and more sophisticated technology in their operations which give them a competitive advantage in supplying certain inputs such as component parts or call centre services.

A business must decide on how much of the supply chain network it will own.

This is the ‘make or buy’ decision or the ‘insource-outsorce’ decision.

Location of each part of the supply chain network may involve ‘onshoring’ or ‘offshoring’ of particular functions of the supply chain such as finance and accounting services.

The ownership of offshore production facilities can occur through foreign investment vehicles such as subsidiaries or joint venture with local firms.

Outsourcing

Outsourcing is the process of having suppliers provide goods and services that were previously produced internally. Outsourcing is the opposite of vertical integration where each stage of production is owned and controlled by a business or corporation.

The business that outsources does not have ownership of the outsourced process or function. Banks and airlines such as Westpac and Qantas have outsourced their telephone call service centres and maintenance services to third party suppliers in cheaper labour countries. They buy these services and have replaced some fixed costs with variable costs which they believe will save them money and ensure adequate service delivery.

However with outsourcing there are disadvantages in that employees will be made redundant who were formerly employed to do these tasks; the business may lose some control over this part of operations; and the quality of the services provided may not be equal to the services formerly provided before outsourcing of the function.

Technology

Technology is the means by which we apply our understanding to solve practical problems. It is a combination of hardware (such as buildings, plant, equipment, tools, machines and computers) and software (such as computer programmes to operate the hardware). Leading edge technology is the most sophisticated, advanced and innovative at any one point in time such as the use of the Internet and smart phones by consumers and businesses. This is in contrast to established technologies which have been developed and used for a period of time. Leading edge technologies may not be adopted and absorbed by consumers and businesses until they are proven to be effective and importantly
cost effective to adopt widely. Technology also involves the know how or the skills, knowledge, experience and management to operate technology in a productive way in a business. Australian consumers and businesses have a high 'take up rate' of new technologies as most technology is absorbed from overseas where new innovations are created and spread to the rest of the world. The management of technology is important in terms procuring the latest appropriate technology for a business, research and development and innovation. There are many issues to consider in the use of technology in business operations such as:

- Investment and operating costs.
- The level and types of skills needed to operate the technology.
- The extent to which the introduction of technology will lead to the shedding of labour and the loss of jobs.
- The impact of technology on customer experience and satisfaction.

Inventory Management

Inventory refers to a stock of resources or goods. Inventory may be tangible such as products stored for sale in supermarkets or intangible such as the specific skills or workers in specialised professions or jobs. The main reasons and advantages in holding inventory include:

- Meeting anticipated changes in demand and supply.
- To safeguard against uncertainty in the business cycle.
- To provide for product variety.
- To enhance consumer service and satisfaction.

The disadvantages in holding stock or inventory are the costs of storage and warehousing, the depreciation of the stock over time if it is unsold and the opportunity cost of labour and time in managing inventory, especially completing an annual stock take for taxation purposes.

Under the Last-In-First-Out (LIFO) method of valuing inventory it is assumed that the last items to come into the business are first to go out. This method results in:

- The cost attributed to the sale being the cost of the last inventories purchased.
- Inventory cost on hand represents the earliest purchases.

Under the First-In-First-Out (FIFO) method it is assumed that the first items coming into the business are the first items to go out of the business. This method of valuing inventory results in:

- The cost attributed to the sale being the cost of the first inventories purchased.
- Inventory cost on hand represents the last purchase.

Just in Time (JIT) is also a method of managing stock or inventory to meet unexpected uncertainty or events. This involves producing goods or services only as demand arises and avoiding the problem and cost of holding large inventories or people on call to deliver services.

This may mean that businesses can offer a wide range of goods and services for sale but they must have reliable, flexible and timely sources of supply to meet any changes in consumer demand. The advantages of JIT are reductions in inventory, storage and warehousing costs as well as avoiding the problem of obsolescence of old stock. However JIT relies almost completely on flexible and timely supply and if not forthcoming will result in lost orders and unsatisfied consumer demand.

Quality Management

Quality management is relevant as an operations strategy because businesses attempt to maintain and improve the quality of their products and services over time so that consumers will continue to buy them. Quality management can involve the use of quality control standards that must be met before products or services are made available for sale. This can range from maintaining the quality of raw materials to the quality of advice given by a financial planner to a client. In manufacturing the International Organisation for Standardisation (ISO) imposes minimum quality standards for the manufacture of various
products which can be endorsed by the manufacturer if they are met and certified. Part of quality management is the concept of continuous improvement where ‘virtuous circles’ of quality improvement and the use of innovative and competitive technologies help to improve quality standards over time.

Overcoming Resistance to Change

One of the biggest challenges in operations is the resistance to change in operations processes and strategies. This is particularly the case in manufacturing sectors of advanced countries whose competitiveness has been challenged by the low cost producers of Asia including China and India. Managers have met this challenge by relocating plants to China and then producing standardised products for the global market. Similarly the relocation of call centres to India has occurred because of the lower labour cost and benefits of using a young, skilled and productive Indian workforce.

However these changes involve enormous financial costs in relocating operations activities and the restructuring of business operations where domestic workforces in certain industries contract and in many cases become redundant as their skills are no longer needed. This has happened recently in Australia with the decision of Ford, Holden and Toyota to cease manufacturing cars in Australia from around 2016-17. The cost of redundancies and the re-skilling and re-location of affected workers will impose an enormous cost on industrial regions, the federal and state government and the economy as a whole.

Global Factors

The external business environment and in particular, trends in the global economy have an impact on operations strategies. The process of globalisation and the integration of economies has meant that more businesses are able to reap economies of scale by reducing their unit cost through producing goods and services for the large global market. This has been a fundamental change in how businesses can produce standardised or customised products and services for global markets.

In addition large multinational companies can engage in the global sourcing of the cheapest resources to use in their operational activities, helping to reduce costs and access the highest quality resources.

Part of this process is the ‘scanning and learning’ technique of finding world’s best practice used in other businesses and adapting such techniques to other business situations. Research and development (R & D) is also important in developing innovative products and services for a global marketplace.

OPERATIONS AND SUPPLY CHAIN MANAGEMENT: REVIEW QUESTIONS

1. Explain the operations function of business and what is meant by operations strategies.

2. List the performance objectives of operations strategies. How are these related in the ‘Sand Cone Model’ shown in Figure 1?

3. Refer to Figure 3 and describe the supply chain for retail goods in Australia.

4. Discuss the role of e-commerce, outsourcing and technology as operations strategies.

5. What methods can businesses use to manage and value their inventory?

6. Discuss the role of quality management as an operations strategy.

DEFINE THE FOLLOWING TERMS AND ABBREVIATIONS

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<tr>
<th>Term</th>
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<tr>
<td>e-commerce</td>
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<td>economies of scale</td>
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BUSINESS CASE STUDY: BRANDS AND CORPORATE SOCIAL RESPONSIBILITY

Tim Riley
Director, Tim Riley Publications Pty Ltd

Importance of Corporate Social Responsibility

Over the past decade the way we select the products and services we buy and even the shares we buy in companies has fundamentally changed. For some this change has come about from the rise of social media but for most the biggest change is the influence of a brand’s Corporate Social Responsibility (CSR) on our purchasing decisions (see Extract 1). If a brand or company has a positive image and supports charities or community organisations as well as being a responsible employer it is more likely to have loyal customers and repeat custom.

Consumers are said to be ‘sovereign’ in the market place and make up their minds about purchasing goods and services independently of corporate advertising and public relations. Therefore if a brand ‘does the wrong thing’ by them reputations can be quickly lost through blogging, ‘friending’, ‘liking’ or tweeting by marketing ‘savvy’ consumers who are socially conscious and sceptical of large corporations.

As such a strong CSR policy is central to a brand’s or ‘Superbrand’s success. Products, services and shares are often purchased because of a company’s ethics, community investment, environmental protection and human rights record. Big corporate budgets are invested into CSR research, strategies, initiatives, communications and measurement. A company’s success is measured on the so called ‘triple bottom line’ where People and Planet are as important as Profit.

The Importance of CSR to a Brand

CSR is about how companies and brands manage their business to produce a positive impact on society whilst minimising any negative impacts. It involves treating employees fairly, preserving the environment, developing sound governance, investing in the community, fostering human rights and respecting cultural differences (see Extract 2). CSR can be divided into seven key elements:

Extract 1: The Development of Corporate Social Responsibility

“When Cavill + Co was created in 1995 the term CSR did not exist. We saw philanthropy, recycling, sports and arts sponsorship, but that was about all. The new century brought a dramatic slide in consumer trust with corporate collapses such as Enron, HIH and Ansett, landmark media events such as Michael Moore’s documentaries and Al Gore’s ‘Inconvenient Truth’ exposing many bad practices amongst large brands and corporations. Through these failings and exposures, CSR emerged although it was still mainly limited to philanthropy or peripheral activities such as staff volunteering.

Since that time CSR has grown from a novel and poorly understood concept to a topic on most boardroom agendas. A key driver is today’s consumer, who is far ‘sawvier’ and globally focused, fed by digital and social media. Another driver is the importance of a reputation in the valuation of a company. A modern knowledge based corporation may have around 70% of its market value based on intangible assets such as reputation, brand, values, patents, designs and copyright. CSR is therefore a key part of reputational capital.”

Source: Cavill, Hailey, Superbrands Volume VI (2013), Richardson & Claremont Partnership.
Extract 2: Case Studies of CSR

- Domino’s Pizza has created a Foundation to support its staff in times of need and in the past two years has donated 20,000 pizzas and $500,000 to victims of Cyclone Larry, the Brisbane storms and floods, the Victorian bushfires, the Queensland floods and the Christchurch earthquake in New Zealand. The company has also signed the national packaging covenant which is a voluntary initiative to reduce used packaging going to landfill.

- Arnott’s Australia has been practising CSR for many years and is making big strides in reducing emissions and water use. In the past five years Arnott’s has reduced packaging by 130 tonnes of plastic, 12 tonnes of steel and 600 tonnes of cardboard packaging each year.

- Cadbury invests heavily in charities and one that fits with its brand is the Clown Doctors who visit 20 hospitals around Australia treating children to fun and laughter. Since 2006 Cadbury has raised over half a million dollars for Clown Rounds and PhD research in medicine. In addition Cadbury and its parent company, Kraft Foods, have donated over 500,000 kilos of products to Food-bank which helps to feed over 60,000 people daily.

- Qantas has supported various charities including CARE Australia. For over 21 years it has collected $24 million in loose change for UNICEF through its ‘Change for Good’ programme. Qantas also sponsors the Australian of the Year awards and in May 2012 released its third Reconciliation Action Plan to foster reconciliation in the broader Australian community.

Source: Superbrands Volume VI (2013), Richardson & Claremont Partnership.

1. Ethical practices in the workplace and in market dealings.
2. Corporate governance (such as transparency and compliance with government legislation).
3. Community engagement (such as supporting local, national and global charities).
5. Marketplace practices (e.g. supplier screening and fair trade).
6. Employee satisfaction (measured by work-life balance, labour practices, diversity in the workplace, training, and development programmes and equal opportunity policies).
7. Risk management (e.g. workplace health and safety, regulatory compliance and reputation management).

The Case for Corporate Social Responsibility

In Cavill and Co’s benchmark 2008 study ‘Real Not Spiel’ conducted by Sweeney Research, more than 500 Australian consumers said CSR was a major factor in their decision making. Subsequent studies confirm that CSR has become even more influential since the Global Financial Crisis (GFC) and Edelman’s Trust Barometer and 2012 Good Purpose Study support this finding. In short CSR can contribute to the following:

- Build trust in companies and businesses;
- Increase staff loyalty and motivation;
- Reduce staff turnover and dissatisfaction;
- Influence consumers at the point of sale in their purchasing decisions;
- Influence share purchase in companies; and
- Demonstrate legitimacy or licence to operate for companies and businesses.
Given that the criteria for being a 'Superbrand' include longevity, goodwill and customer loyalty, CSR can do much to create and sustain business for the future because building trust is important if not essential. Trust in corporations is declining year on year, while charities continue to be the most trusted institutions to do what is right by society in Australia and around the world. However even charities have come into question over their ethical practices with evidence of neglect, physical and sexual abuse by some of their staff against adults and children in their care.

However charities are estimated to be the third most trusted sources of CSR information, after customer groups such as Choice and the word of friends and family. ‘Superbrands’ understand that if they partner well with a charity they may gain the benefit of this trust.

As for staff loyalty, research by Seek shows that 48% of employees would seek employment at a company that supported charities; 41% would take a job that earned less if they could volunteer and make a difference; and 88% would feel proud to serve a charity either directly or indirectly.

When it comes to sales, aligning with a charity can have a major influence on women, who may decide a significant percentage of household spending each week:

- Up to three quarters of women are inclined to purchase products and services that support a charity, and in the last year 28% actually switched brands because of this factor.

- Two thirds of consumers would choose a branded product that promotes environmental benefit and 45% said they had already done so.

- Almost half of all Australians said a company’s CSR record would have a major impact on whether they bought products and services from that company.

- 55% said they would actively support a company which showed that it supported the environment.

For investors deciding on whether to buy shares in a company, 46% said a company’s CSR would have a major impact on their decision and a further 40% said a minor impact. Clearly a visible CSR philosophy has become increasingly important to consumers.

Among companies involved in CSR the area that most get wrong is in their first communication to consumers about their participation. Many brands talk about money or strategies without giving simple, tangible examples and outcomes when Australians want to see results. In fact 49% said they were confused by most ‘green’ claims believing that companies were trying to ‘blind them with science’ and 62% felt that companies made false or misleading claims about their impact on the environment. This kind of ‘greenwash’ as it is called is now ‘outed’ on social media and called ‘hogswash’ by consumers and consumer groups.

Australians are naturally cautious consumers and will go out of their way to expose brands behaving badly. If two New Zealand teenagers can bring a global pharmaceutical company to its knees over Vitamin C levels, whose brand is safe? Consider this: 34% of Australians say they have avoided purchasing a product, service or brand due to its poor environmental record. They object to companies declaring huge profits and paying big salaries to their Chief Executive Officers whilst over charging, followed closely by failing to provide safety for staff and customers and training staff poorly. Not far behind are false claims of charitable or green activities.

How Can Brands Make the Best of CSR Opportunities?

The first thing to do is what feels right for your company and brand - to make sure it makes sense for your business and is a reflection of what you stand for - to achieve some real results before making a ‘public relations splash’. Consumers want to see results not promises:

- Avoid window dressing and jargon and keep it ‘real’.

- Encourage honest and accurate labelling and advertising.

- Avoid inconsistency such as donating to an environmental charity but using three layers of packaging in products sold.

- Treat employees well as they are your best advertisement.

- Find something that fits your business and stick with it for the long term and communicate the outcomes.

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Above all it is important to set measurable Corporate Social Responsibility objectives and publish the findings e.g. measuring the Social Return on Investment (SRI) as well as the Commercial Return on Investment (CROI).

Scholars and practitioners of Corporate Social Responsibility expect CSR to move beyond just ‘doing the right thing’, minimising risk and ensuring regulatory compliance. All sorts of challenges - diminishing energy resources, lack of food and water, growing global population - present opportunities for companies to use their ingenuity and resources to find solutions to these problems. CSR now includes social responsibility, community investment and partnerships, supply chain management, human rights and stakeholder engagement.

CSR has shifted from a strategy by a few enlightened people to a core business function for all - central to a company’s success and future. Companies and businesses have the capacity to improve society through ethical values and behaviours yet still be profitable.

The Corporate Social Responsibility Index

The CSR Index was developed in the UK and is used under licence from Net Balance in the UK in Australia and New Zealand as a business management and benchmarking tool designed by business for business. The CSR Index provides a comprehensive web based survey questionnaire and guidance notes that can assist a company to measure, manage and report on its corporate responsibility performance in a way that is integrated with the business strategy and existing reporting requirements.

Participating companies also use the CSR Index to benchmark their own corporate responsibility performance annually, and their performance against industry peers. The CSR Index measures responsible business practice through four main areas of a business:

1. Strategy;
2. Strategy implementation and integration;
3. Management practice in regard to the community, environment, marketplace and workplace issues; and
4. Performance in a range of social and environmental impact areas.

For example, Mark Scott, Managing Director of the ABC has explicitly incorporated CSR goals into the ABC’s Strategic Plan:

“The ABC delivers content of the highest quality on multiple platforms to audiences across Australia and internationally. Our approach to CR is that while delivering this content we ensure every part of our business activity impacts responsibly and positively on the community and environment.”

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<td>2. Explain why Corporate Social Responsibility is important to companies and brands.</td>
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<td>3. List the key seven elements of Corporate Social Responsibility.</td>
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<td>4. How can brands make the best of CSR opportunities?</td>
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<td>5. Explain the importance of the Corporate Social Responsibility Index.</td>
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