

BUSINESS STUDIES

Operations Case Study

OPERATIONS AT COCA COLA AMATIL

1. Describe operations at CocaCola Amatil. Discuss the influences on CocaCola Amatil operations.

Today, CocaCola Amatil is a major Australian Multinational Company that bottles non-alcoholic ready-to-drink beverages and has operations in Australia, New Zealand, Fiji, Papua New Guinea, Indonesia and South Korea. The operation process at CCA incorporates a large and increasingly complex supply chain and logistics, which is constantly revamped to ensure maximum efficiency. The process of procurement, planning, operational excellence, warehousing and distribution all combine to transform raw materials into finished products that will satisfy customer demand.

The operations at CCA begin eight weeks prior to when they pick their orders. This initial stage is where they forecast the volume of stock they are expected to produce. After this, they plan their production process and source their inputs from The Coca-Cola Company (TCCC) and at the 3 weeks prior mark; they produce, ship and store their transformed products. The production takes place at 15 different plants strategically positioned around Australia, where the products are then shipped to one of the 8 primary warehouses and stored in these locations. The day before they pick the orders for delivery, they have to take the orders and consolidate their loads, ensuring everything is correct and organised for the subsequent processes. Once all of this preparation is complete, the orders are picked and 6 hours later are loaded and delivered to one of the 70 satellite warehouses or cross-docks. Here, they are prepared for their final delivery to retailers, using one of the company's 835 trucks. This all happens within one day of the orders being picked. Once each load is individually delivered the retailers are invoiced and then given 30 days to make their payments back to CCA.

CCA utilises a flexible manufacturing capital strategy aimed at increasing capacity and reducing operating costs in the supply chain. This strategy involves automated warehouses, which removes labour costs and doubles handling costs by consolidating. Its nearly complete automation improves customer service by reducing error rates and providing greater inventory accuracy. Their most recent supply chain program is Project Jupiter, which has greatly simplified their entire operations network. Under this remodelling program, CCA now has the ability and capacity to store and deliver forecast volumes until 2015. Another improvement in CCA's supply chain includes a new system implemented in their Northmead plant, which completely modernised their warehousing and consolidated their storage onto a single site. The new facility addresses the chain of responsibility requirements of transport and ensures accurate and timely replenishment to their operations. It enables CCA to achieve world best practice levels of customer service, operational costs and stock accuracy. The areas it addressed were the plant's storage systems, transportation hub and staging systems, updating them all and improving accuracy and efficiency.

INFLUENCE	HOW IT INFLUENCES CCA OPERATIONS
Globalisation	<p>Globalisation is a major driver of all business futures, and as it continues to evolve it will continue to have material impacts on business strategies, structures and operations and thus, supply chain management and resourcing decisions, especially insourcing and outsourcing.</p> <p>Globalisation has influenced CCA's operations by allowing and driving them to rapidly expand into a global business operating in various countries in the Asia-Pacific region. With operations now in New Zealand, Fiji, Papua New Guinea, Indonesia and South Korea, CCA has become the largest bottler of Coca-Cola trademarked products in the Asia-Pacific region. The company's expansion and increase in customer base, due to globalisation, means that its operations have had to grow and develop in order to generate sufficient supply and meet the demands of its increased market. CCA's businesses in Indonesia and Papua New Guinea has generated strong growth in earnings, which has been boosted by the increased manufacturing capability and the distribution of more cold drink coolers.</p>
Technology	<p>Technology is a fundamental influence on CCA's operations, as its advancements have created opportunities for new products, increased productivity and efficiency, and is continually improving CCA's supply chain.</p> <p>These advancements, such as development in transportation, telecommunication and computerisation all influence CCA's operations as the company had to respond. Their response involved them embracing and utilising these developments. CCA now uses advanced robotics, smart technology and artificial intelligence, as well as the automisation of its warehouses. Technology has allowed CCA to initiate programs including Project Jupiter and Project Zero, where their supply chain has simplified and improved and the company has gained increased profit margins. Essentially, technology has instrumental in improving CCA's operations, where it now is extremely profitable, efficient and effective.</p>
Quality Expectations	<p>CCA strives to meet the ever-increasing demands of growing and developing markets around the world. In relation to quality expectations, CCA's customer standards are exceptionally high. Thus, the company's operations function must work specifically to match or even exceed these expectations.</p> <p>Total quality management would be an aspect of CCA's operations that is influenced by the quality expectations of their customers. The high expectations place significance on their quality control, assurance and improvement if expectations are not being met. The quality system in their operations coordinates and guides its activities, drives continuous improvement and relentlessly strives for quality in everything it does. The quality expectation of CCA is very high across the globe.</p>

Cost-based Competition	<p>In Australia, CCA has 'Pepsi'/'Schweppes' beverages as its major competitor within the carbonated soft drink segment, and a large number of competitors within the wider commercial beverage markets. Here, CCA is the leading producer, however to remain on top it must respond to the costs of these competing brands. Luckily, CCA's strong brand image allows them to charge slightly more than its competitors for similar products, without causing a decrease in market share. This is an advantage in regards to CCA's operations, as there is no added pressure, however to maximise profitability CCA can make their operations highly efficient and effective. Essentially, the cheaper their inputs needed to create their outputs, the more profit they will make. This motivates CCA to keep their production costs low in order to keep up with a competitive industry.</p>
Government Policies	<p>Government regulation is an important factor affecting CCA's operations, principally with respect to manufacturing, environmental, workplace health and safety, trade practices, anti-discrimination and product liability matters.</p> <p>Further, the government reduces trade barriers, such as tariffs, reduction and subsidies. The decrease in tariffs has been one of the most significant factors encouraging CCA expanding its operations into the global market.</p>
Legal Regulations	<p>CCA is subject to a range of laws relating to: workplace health & safety, environmental protection, product safety and trade practices. Each of these protocols effect operations at CCA, as their operations must conform to these laws and ensure that the entire company adheres to the various regulations they involve.</p> <p>In all countries, CCA is subject to legislation covering the food industry. The regulatory body enforcing this legislation in Australia is Food Standards Australia and New Zealand. This regulatory body sets strict standards as to what ingredients and processes may be used in all areas of the operations function. CCA is also subject to state occupational health and environmental legislation. Laws regarding workplace health and safety involve CCA implementing safe machinery, handling procedures and guidelines within their operations function.</p> <p>CCA has in effect all licenses, registrations and permits required to carry on its business and CCA believes that it will not encounter any difficulty in their maintenance or renewal in the future. CCA believes that, to the best of the knowledge of its management, it is in material compliance with all of the regulations and permits applicable to the conduct of its business.</p>

Environmental Sustainability	<p>Environmental sustainability has a huge influence on CCA, where CCA is committed to conducting its business operations in a sustainable manner. Environmental management teams are established within each of CCA's business units to ensure the effective implementation of the environmental management system, training and awareness for all employees, and the development and introduction of environmental action and improvement plans covering issues such as waste minimisation, energy conservation and reductions in water usage and wastewater.</p> <p>CCA has taken an active role in a number of countries in tackling issues of waste minimisation, improvements to packaging and pioneering effective recycling and litter reduction programs.</p> <p>This active role involves CCA's response in creating a Sustainability Strategy. The aim of this strategy is to understand and minimize the environmental impact operations may cause, meet the expectations of the company's customers in relation to the quality and service of the product and also provide a safe working environment for all employees. The three key areas of this strategy are water energy and packaging. CCA's operations are concerned with saving water and recycling water, being energy efficient and reducing pollution and ensuring that their packaging is environmentally friendly.</p>
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OPERATIONS AT QANTAS

2. Describe operations at Qantas. Describe the features of operations management for Qantas as a tertiary industry.

Qantas is divided into three closely related groups, with the operations group comprising of engineering, airports, catering, flight operations, operations planning and control and Qantas Aviation Services. These elements of Qantas' operations successfully integrate and combine to produce a highly satisfactory travel service for customers around the world to enjoy. As Qantas is a tertiary industry specialising in the provision of travel services, it isn't possible for them to make thousands of flights in advance and stockpile them. They can only provide the service, as people require it. This provides some additional challenges for the operations manager.

INPUTS: In order to deliver the service, the operations manager at Qantas needs to ensure that many different elements are in place and organised. This includes the planes, fuel, storage and delivery systems, flight attendants and catering services. Even though the company does not make the planes they use, they must know the amount of planes they have access to in order to cover the routes being offered. They must also purchase sufficient amounts of fuel, which involves the provision of a delivery system and storage facility. Qantas also requires access to airports at both ends of the trip. On board the plane, they provide exceptional service in their catering and flight crew. Food, drink and entertainment are provided, as well as safety equipment to ensure customer satisfaction.

PROCESSES: The process of delivering a service is highly dependent on the employees of the company. At Qantas there is a very large team involved in the delivery of their services, which include ticketing, flight attendants, pilots, baggage handlers, chefs, maintenance staff and many more. Ticketing is an important part of operations, as it involves the organisation and allowance of customers to board their flights. Particular employees also need to prepare the food and others to handle the luggage. Maintenance staff are important, as Qantas maintains an impressive reputation for safety, and they are keen to ensure that this will continue. The above people and many more are all involved in delivering the service that is offered by Qantas.

OUTPUTS: The output that is generated by Qantas is a happy and satisfied customer. Every customer is to be transported safely to the correct destination, with the desire to continue to use Qantas services in the future. This is quite different from a manufacturing firm. The intangible nature of services makes it very difficult to measure some of the outcomes that are achieved by a large-scale business like Qantas. Despite this, the number of passengers carried and their satisfaction with the service are monitored extremely closely.

An aspect of Qantas' operations is their logistics, procurement and supply chain. Logistics, planning and scheduling within Qantas deals with a wide variety of operational areas. From developing the schedule so their customer's see when they book a flight, to making sure that each flight has the pilots, cabin crew, catering, airport and engineering support they need, the logistics professionals at Qantas help make them one of the world's most successful airlines. Qantas is recognised as a leader in the procurement and supply chain field and is constantly improving and implementing new initiatives in best practice procurement.

Technology plays an important role in operations, as it improves flows, reduces costs and helps keep records. Qantas utilizes leading edge technology evident in May 2010 when Qantas Freight rolled out the first phase in its Freight Futures program. This is a multi-million dollar initiative that replaced its previous inferior systems and revolutionised work processes. The foundation of the program is the introduction of iCargo, which is an advanced, end-to-end, industry-specific application. This provides Qantas Freight with a range of new tools and functionality to better serve the needs of its customers now and into the future. Further, the introduction of the Airbus in 2007 demonstrates their improved operations. The result of the 21st century continuous improvements is an airliner at the top of the scale in terms of operational effectiveness, efficiency and profitability.

How all four key business functions relate:

3. Discuss the relationship between operations and the other three function areas with specific reference to Qantas and CCA.

There will be constant flow of information between operations and the other key business functions: marketing, human resources and finance. Each function relies on the other so that the business can achieve its goals. The interdependence between the key business functions can be seen in the following. In marketing, research identifies the nature of goods that consumers' desire and marketing strategies encourage purchases. Operations must supply a product that has the features and quality customers demand as well as reliably distributing this product to the market. The finance manager will create budgets and make funds available to purchase inputs, equipment, repairs and maintenance. Production costs will be minimised in order to maximise profit margins. Human resources will ensure that enough employees with appropriate skills are available for the operations function. The human resources manager will use their leadership style and rewards to ensure the employees in the operations function perform quality work. In this, it is clear that marketing, finance and human resources all have an important relationship with operations as they determine exactly how it will function.

Using CCA as an example, consider the affect that a new marketing strategy may have on the key business functions, most significantly, their operations. CCA has introduced various new products, with their newest 'Dasani Drops' to over the past few years, which involves the instalment of new equipment and/or the rearrangement of the production line. Their latest product is 'Dasani Drops' due to hit the shelves this month. New raw materials would need to be purchased and stored, and changes in how the goods are distributed may need to be implemented. Marketing has a significant impact at CCA's Northmead factory, where it determines operations production levels and outputs. At CCA finance also affects operations as it organises and supplies the money. An example is that money is needed to pay Alcoa for the purchase of empty cans, and if production levels increase then the finance function needs to ensure that there are sufficient funds available.

Further, an example of the finance sectors relationship with operations can be seen in Qantas's net loss at the end of the last financial year. This loss resulted in the operations team having to reduce their spending on new aircrafts and machinery, both domestically and internationally. A recent event at Qantas has illustrated the relationship between operations and human resources. A change in their engineering operations, as part of a restructure aimed at cutting costs and shifting focus to Asia, has caused for a cut of around 400 workers. This reduction in human resources is an action taken in order to consolidate the company's maintenance operations, thus achieving savings under heavy competition, fuel costs and the strong Australian dollar.

OPERATIONS IN ANOTHER BUSINESS:

4. Interview a business owner:

Bluegum Pharmaceuticals is an Australian TGA licenced Manufacturer of complementary medicines, specialising in two-piece capsule, blister packing, powder filling, labeling, bottling and new product development.

David Cornish – General Manager

Q: What are the operations at Bluegum Pharmaceuticals?

A: Bluegum Pharmaceuticals is a contract manufacturer, manufacturing and packing listed complementary medicines in their plant at Alexandria. Raw materials are purchased from local and overseas suppliers, sampled and then tested against specifications. Manufacturing work orders are created against customer orders and production batch documents raised, providing bills of materials and manufacturing instructions. Batches of approximately 50kg are dispensed (weighed), mixed and then filled into hard shell capsules using automated equipment. The finished capsules are then sent to contract laboratories for testing against specifications and, after approval, the capsules are packed into bottle of blister packs, again using high-speed automated equipment. After a final inspection, reconciliation and document check, the product is released for sale and sold to sales and marketing companies for distribution.

Q: Can you discuss Price v Quality and the impact it has on your business?

A: The industry is very price competitive and customers check prices with a number of manufacturers. David, the owner, states, "Usually the lowest price wins the business!".

Quality standards are high, as the industry is highly regulated by the government authority (TGA). Much of the product cost is driven by the cost of the raw materials, where in the last 10 years there has been a change in sourcing of materials, now from China and India rather than Europe or the USA. These materials are often not of the same high standards, but as the customer will not pay the higher price it is necessary. These raw materials are still tested to ensure they meet the same high standard, as the previous materials.

Bluegum's business has looked at ways of reducing costs by validating processes so that they can reduce their testing costs and sourcing raw materials direct from overseas manufacturers in Europe, India and China rather than local agencies. Labour costs are inherently higher in Australia, however as this country has an excellent reputation for quality worldwide and products 'made in Australia' is in demand, particularly in Southeast Asia, they continue to operate here. Southeast Asia is where a great opportunity exists for growth of this business.

Q: What government legislation affects the business in its operations and also its operations strategies?

A: Bluegum Pharmaceuticals are covered by all the usual local and federal workplace legislation, including Workplace Health and Safety, Fair Work Australia, etc. The major difference to other industries is the impact of the TGA, which licence all manufacturing businesses that supply medicines to Australia. Bluegum extended the scope of their business 4 years ago to include manufacturing, but had to gain an extension to their licence by satisfactorily meeting the PICS GMP code for medicines. PICS stands for Pharmaceutical Inspection Convention and GMP stands for Goods Manufacturing Practice, which allows the business to trade globally as it meets the standards of all similar practices. PICS' mission is to lead the international development, implementation and maintenance of harmonised Good Manufacturing Practice (GMP) standards and quality systems of inspectorates in the field of medicinal products. Bluegum were not permitted to manufacture or sell any product until this licence was obtained.

This is a major consideration in expansion, as each facility needs to be audited prior to gaining a licence.

Q: Why are operations so important in sustaining the businesses competitive advantage?

A: For a contract manufacturer, the operations are the critical area of expertise, as their customers are sales and marketing companies, who then sell the product to retailers. The operations determine how the company is perceived, encompassing all facets such as purchasing, quality, delivery performance and pricing.

The pricing of the product is dependent upon the purchasing strategies, productivity and labour costs, testing costs and material yields. All of these areas need to be included in a constant drive for improvement in order for the business to continue to remain efficient against its competitors.