

Study of coca colas quality management system



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Coca-Cola was founded in 1886 by pharmacist Dr John S Pemberton in Atlanta, Georgia. Coca-Cola Company is the worlds largest marketer, distributor and manufacturer of non-alcoholic beverage syrups and concentrate, and produces close to 400 brands. This report will describe the organisations current quality management system and how effective this is at meeting with product demands and consumer needs. Recommendations about how the system can be improved will also be outlined.

Currently, the Coca-Cola Company is based in Georgia with subsidiaries all over the world with a strong product portfolio including well known brands such as, Sprite, Coke Zero, Fanta, Oasis, Abbey Well water and Powerade (Coca-Cola, 2010). Coca-Cola Enterprises Ltd in Edmonton, is the local bottler responsible for the distribution, manufacturing, trade marketing and sales of the brands throughout UK, this is the system that will be discussed throughout this report. However, this system is likely to be replicated throughout the organisation both in the UK and abroad.

Analysis of Coca-Cola

Coca-Cola drinks come in a variety of different packaging formats including glass, aluminium cans and plastic bottles (Coca-Cola, 2010). As the company expands its supplier base and beverage portfolio to meet the increasing demands of developing and growing markets around the world, regulatory scrutiny and consumer expectations continue to rise. Coca-Cola (2010) states that “ the global nature of its business requires that the Coca-Cola system has the highest standards and processes to ensure consistent quality – from its concentrate production to its bottling and product delivery”.

Coca Cola (2011) states that ' to ensure such consistency and reliability, the Coca-Cola system is governed by the Coca-Cola Operating Requirements (KORE)'. This system enables Coca-Cola to address growth plans by creating an integrated quality management program which holds all operations to the same standards of production and distribution of beverages. The current management system, KORE, aims to achieve the highest standards in product quality, health and safety and environmental standards at Coca Cola.

The Quality Management system

It is very important that each product that Coca Cola produces is of a high quality standard to ensure that each product is exactly the same. This is important as the company wants to meet with customer requirements and expectations. With the brand having such a global presence, it is vital that these checks are continually consistent. The standardised bottle of Coca Cola has elements that need to be checked whilst on the production line to make sure that a high quality is being met. The most common checks include ingredients, packaging and distribution. Much of the testing being taken place is during the production process, as machines and a small team of employees monitor progress. It is the responsibility of all of Coca Colas staff to check quality from hygiene operators to product and packaging quality. This shows that these constant checks require staff to be on the lookout for problems and take responsibility for this, to ensure maintained quality.

Coca-cola uses inspection throughout its production process, especially in the testing of the Coca-Cola formula to ensure that each product meets specific requirements (Coca-Cola, 2011). Inspection is normally referred to as <https://assignbuster.com/study-of-coca-colas-quality-management-system/>

the sampling of a product after production in order to take corrective action to maintain the quality of products (Summers, 2009). Coca-Cola has incorporated this method into their organisational structure as it has the ability of eliminating mistakes and maintaining high quality standards, thus reducing the chance of product recall. It is also easy to implement and is cost effective.

Coca-cola uses both Quality Control (QC) and Quality Assurance (QA) throughout its production process. QC mainly focuses on the production line itself, whereas QA focuses on its entire operations process and related functions, addressing potential problems very quickly (Summers, 2009). In QC and QA, state of the art computers check all aspects of the production process, maintaining consistency and quality by checking the consistency of the formula, the creation of the bottle (blowing), fill levels of each bottle, labelling of each bottle, overall increasing the speed of production and quality checks, which ensures that product demands are met (Muirhead, B. 2011). QC and QA helps reduce the risk of defective products reaching a customer; problems are found and resolved in the production process (Summers, 2009), for example, bottles that are considered to be defective are placed in a waiting area for inspection (Muirhead, B. 2011). QA also focuses on the quality of supplied goods to Coca-cola, for example sugar, which is supplied by Tate and Lyle. Coca-cola informs that they have never had a problem with their suppliers (Muirhead, B. 2011). QA can also involve the training of staff ensuring that employees understand how to operate machinery. Coca-Cola ensures that all members of staff receive training prior to their employment, so that employees can operate machinery efficiently.

Machinery is also under constant maintenance, which requires highly skilled engineers to fix problems, and help Coca-cola maintain high outputs.

Every bottle is also checked that it is at the correct fill level and has the correct label. This is done by a computer which every bottle passes through during the production process. Any faulty products are taken off the main production line. Should the quality control measures find any errors, the production line is frozen up to the last good check that was made. The Coca Cola bottling plant also checks the utilisation level of each production line using a scorecard system. This shows the percentage of the line that is being utilised and allows managers to increase the production levels of a line if necessary (Muirhead, B. 2011).

Coca-Cola also uses Total Quality Management (TQM), which involves the management of quality at every level of the organisation, including; suppliers, production, customers etc (Summers, 2009). This allows Coca-cola to retain/regain competitiveness to achieve increased customer satisfaction Hradesky, J. (1992). Coca-cola uses this method to continuously improve the quality of their products. Teamwork is very important and Coca-cola ensures that every member of staff is involved in the production process, meaning that each employee understands their job/roles, thus improving morale and motivation, overall increasing productivity (Summers, 2009). TQM practices can also increase customer involvement as many organisations, including Coca-Cola relish the opportunity to receive feedback and information from their consumers. Overall, reducing waste and costs, provides Coca-cola with a competitive advantage (Muirhead, B. 2011).

The Production Process

Before production starts on the line cleaning quality tasks are performed to rinse internal pipelines, machines and equipment. This is often performed during a switch over of lines for example, changing Coke to Diet Coke to ensure that the taste is the same. This quality check is performed for both hygiene purposes and product quality. When these checks are performed the production process can begin.

Coca Cola uses a database system called Questar which enables them to perform checks on the line. For example, all materials are coded and each line is issued with a bill of materials before the process starts. This ensures that the correct materials are put on the line. This is a check that is designed to eliminate problems on the production line and is audited regularly.

Without this system, product quality wouldn't be assessed at this high level. Other quality checks on the line include packaging and carbonation which is monitored by an operator who notes down the values to ensure they are meeting standards.

To test product quality further lab technicians carry out over 2000 spot checks a day to ensure quality and consistency. This process can be prior to production or during production which can involve taking a sample of bottles off the production line. Quality tests include, the CO₂ and sugar values, micro testing, packaging quality and cap tightness. These tests are designed so that total quality management ideas can be put forward. For example, one way in which Coca Cola has improved their production process is during the wrapping stage at the end of the line. The machine performed revolutions around the products wrapping it in plastic until the contents were

secure. One initiative they adopted meant that one less revolution was needed. This idea however, did not impact on the quality of the packaging or the actual product therefore saving large amounts of money on packaging costs. This change has been beneficial to the organisation. Continuous improvement can also be used to adhere to environmental and social principles which the company has the responsibility to abide by. Continuous Improvement methods are sometimes easy to identify but could lead to a big changes within the organisation. The idea of continuous improvement is to reveal opportunities which could change the way something is performed. Any sources of waste, scrap or rework are potential projects which can be improved.

The successfulness of this system can be measured by assessing the consistency of the product quality. Coca Cola (2011) say that ' Our Company's Global Product Quality Index rating has consistently reached averages near 94 since 2007, with a 94. 3 in 2010, while our Company Global Package Quality Index has steadily increased since 2007 to a 92. 6 rating in 2010, our highest value to date'. This is an obvious indication this quality system is working well throughout the organisation. This increase of the index shows that the consistency of the products is being recognised by consumers.

Customer Satisfaction

Coca-Cola controls its customer satisfaction by having a code on the bottles it produces. This means that if there is a fault, then that code can be entered into the Coca-Cola database and they can find out what plant it was produced at and where it was distributed to. This helps customer satisfaction

because if there is a faulty group of Coke bottles then they can be recalled before any other customers find problems with a particular batch of Coke products. They also have an OTIF rating system for distributors (OTIF stands for 'on time in full') (Muirhead, B. 2011). External customers, such as distributors can rate Coca-Cola's delivery based on, if it was on time and the full stock was delivered. Coca Cola also use mystery shoppers to examine the quality of the products and how satisfied customers are with those products (Muirhead, B. 2011).

Corporate Social Responsibility

As part of the quality system, factors such as corporate social responsibility are important as many organisations have a number of roles and responsibilities that they must adhere to, to ensure they provide high levels of quality and customer satisfaction. A large organisation, such as Coca-cola will normally compile a document stating the company's Corporate Social Responsibilities (CSR). A CSR is integrated into the business model, which helps to self regulate a company. The CSR must comply with law, ethical standards and international norms (Crane, A. et al. 2009). Coca-cola's responsibilities include; 'beverage benefits', 'active healthy living', 'community', 'Energy and climate', 'sustainable packaging', 'water stewardship' and 'workplace' (coca-cola, 2011). Overall, Coca-cola takes quality very seriously, and ensures that the company meets the 'requirements and consumer expectations in the market place'.

Coca Cola have considered the need to meet with environmental standards in both their product design and the production process. These standards were implemented in the production area we witnessed firsthand. These

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implications are important factors during the design and development of new products, packaging, production processes and factory facilities. Coca Cola abide by the ISO14001 guideline in order to ‘implement, maintain and improve an environmental management system’ (The ISO 14000 Environmental Management Guide) (Coca-Cola Enterprises Ltd, 2011).

One of the main environmental initiatives taken up by Coca Cola was Water Stewardship in which the company aims to improve their water efficiency by 20% by 2012. Water is used by Coca Cola for production processes such as cleaning, heating and cooling. The overall aim of these factors is to minimize the cost of producing new and existing packaging without compromising the product. However, at the Edmonton factory was struggling to meet with this level of stewardship at present.

The Times 100, (2010) states that “taking action on the conviction that education is the key to changing behaviours and attitudes, Coca-Cola supports a large number of litter prevention organisations around the world, such as the Tidy Britain Group and Coca-Cola Great Britain receive the Group’s top award in 1992 in recognition of over 20 years of support”.

Criticisms of Coca-Cola

In 1999, Coca-cola released Dasani bottled water onto the shelves, which ended up turning into a disaster for Coca-cola and as a result was taken off the shelves. There were speculations over the quality of the water and that Coca-cola had simply filled each bottle with purified tap water. It has been stated by BBC news (2004) that the water is that of the mains supply from

Coca-cola's plant in Kent. This bad press put Coca-Cola's brand into a bad light and raised questions over the quality provided to consumers.

As stated in their CSR, Coca-cola takes its environmental policy very seriously in the UK, however, it could be considered that the company is exploiting developing countries, taking advantage of their lack of laws and regulations and corrupt governments. The Guardian (2006) reported that Coca-cola had been accused of “ polluting a lagoon in Africa, by pumping untreated waste into the water and killing fish”. Despite Coca-Cola's clear statement in their CSR that they look to help steward the environment, they are failing to show that they can maintain environmental quality standards outside of the UK and other developed countries, which can as a result reduce consumer's trust in the company.

Recommendations

Based on the findings of this report, it seems that Coca-Cola has an efficient and productive quality management system. However, some recommendations can be made which Coca Cola could consider in both the short and long term. The Coca-Cola Company has high uncertainty about the usage of raw materials, which is used to create their products. This may not be an issue at present but with raw material supplies becoming increasingly scarce there could be pressure to use more recyclable materials. The company faces criticism of health and safety and packaging obligations, which can affect the social image of the company. Therefore, the use of continuous improvement is significant concept within the quality management system and the business should look to find the most recyclable packaging available. Although this could help reduce their carbon

footprint, different materials may affect the quality of products and the cost of production. This is something that would need to be considered by the company. This may not be the best option financially in the short term but could boost social image in the long term.

Conclusion

The educational visit to Coca Cola Enterprises and the research conducted via other sources suggest that the company has a very efficient and productive quality management system. The global presence that Coca Cola has means that its quality system needs to maintain a high level of consistent products which meets the standards expected by its consumers worldwide. Research shows that the system in place enables Coca Cola to measure all parts of the production process with large success. This is reflected in the Company's Global Product Quality Index rating which has consistently reached 94%. The effectiveness of this system allows for the organisation to profit by creating various distribution centres all over the world, applying the same quality principles. Without this quality system in place, Coca Cola may have found it tougher to penetrate international locations. One important aspect to Coca Cola is their brand image and this quality system does its best to promote this image providing checks throughout the production process. Other ways in which Coca Cola tries to increase its social standing is by adopting sustainable approaches to environmental initiatives. These factors are important to maintaining quality in the design and development of new products, packaging, production processes and factory facilities. The water stewardship scheme is an example of this.

However, the recommendations suggested provide Coca Cola with some areas to consider. Environmental and social factors which are likely to influence the quality system are the most important recommendations. Continuous improvement throughout the organisation could offer some ideas about these issues which could maintain or improve upon the current product quality index rating. Nonetheless the current system in place seems to be extremely effective and allows Coca Cola to distribute its products on a global scale producing consistently high products with rare cases of defection. It is clear that the system has gone through various transformations that have improved the way in which quality is managed and without these changes, customer demand would struggle to be achieved.

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