Systems and Operations Management

Analyze the Competitiveness of Operations Management

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# 1. Introduction

Twinings Tea is a famous manufacturer of tea operating in the markets of the UK. The company was founded in the year 1706 and was acquired by Associated British Food (ABF) since 1964 in the United Kingdom (UK). Since then the company has been selling some of the best teas in the world with almost 500 varieties operating on an international level (Mackman, 2013). The present report is focused on presenting a detailed analysis of Twinings UK in the light of some major problems faced by the company in its operations. The report should be considered as a proposal as to how the major problems should be managed and ways to improve the overall productivity. The report also provides some relevant strategies and theories related with operations management and business growth to justify the analysis and recommendations.

# 2. Operations Management

In relation to business organizations, operations management can be explained as the procedure of coordinating people and processes for accomplishment of specific goals and objectives (Simona, 2014). Management of business specifically includes planning, organizing, staffing, directing operations and resourcing. Business operations are those ongoing and recurring activities involved in the running of a business for the purpose of producing value for the individual owners of the business and their stakeholders (Greasley, 2009). It is possible to summarize the management of operations as three basic functions namely, product development, marketing and operations (Holmstrom and Roberts, 2008). The function of operations is the part of the organization where process transformation is undertaken on the basis of performance objectives, setting of a strategy of operations, designing the strategy, planning and controlling the operation (Slack, 2010). Here the aim to make sure that satisfaction of customers is taken into account along with a focus on final product or service to ensure long-term success of the business organization.

A proper management of operations in any business organization can contribute towards its growth and success in a significant manner (Slack, 2010). With the existing availability of resources it is possible for the system to manufacture the products and services in a manner that is effective and efficient to satisfy the needs and expectations of the customers (Greasley, 2009). It is the function of operations management that operates with the aim of satisfying the needs and demands of customers and its function of providing products and services is necessary for the existence of the business organization. However, it is necessary that other functions, like, marketing, sales and development functions of product and services provides support to operations management (Slack, 2010). There are yet other functions like human resource, information systems and technical functions and accounting and finance functions that support the function of operations for success and growth of the business organization.

## 2.1 Operations at Twinings

Considering the operations of Twinings in relation to four major features, namely, Quality, speed, cost, dependability and flexibility, there are several issues that the company face while interacting with customers and focusing on information transformation, knowledge and experience to produce and offer products and services.

The very first issues is associated with effective management of quality arise which is generally difficult to monitor and control due to high speed of production at the manufacturing unit of the company (Lane4, 2015). Along with this, services are required to improve the process of sending information to customer and showing them the value offered by Twinings. Further, the cost of Twinings is much higher in comparison to other brands making the market share of the brand limited with most people considering drinking of Twinings tea on an occasional basis (Lane4, 2015). There are issues being faced by the company about the achievement of target market with their focus on products and services of high quality coming from excellent quality of raw material, workforce that is highly skilled an work under a strong management however, being a medium-sized organization, it fails to pass the cost to the customer (Griffiths, 2007).

Customers in the market expect strong quality of products along with a consistent and dependable services offered by the company. Twinings work with the guarantee of high quality products making customers to expect highly dependable services for them. This raises a major issue where Twinings is expected to develop its services in a better manner to ensure satisfaction of customers (Blackwell, 2001). In the present day markets, companies that respond quickly to demands and expectations of customers are able to gain a strong competitive advantage. Furthermore, organizations need to have high flexibility in their operations to adapt to changing needs and expectations of markets and such a focus can help Twinings to respond quickly towards demands of present and prospective customers (Simona, 2014).

It is to be noted that Twinings report a continuous improvement in levels of customer satisfaction even during a period of change (Mackman, 2013). A regular comparison of year in year results have made it possible for the company to identify areas of improvement and development on a regular basis that is considered and taken care immediately at the company. Such a research has helped the company to increase loyalty of customers and strengthen relationship with the suppliers and clients.

With the aim of capturing efficiency in its operations, Twinings conduct group sessions targeting he workforce of the company informing them about various themes of manufacturing efficiency, customer service and quality (Lane4, 2015). Here the aim is to gain feedback and commitment from the employees working actually on the shopfloor of Twinings (Lane4, 2015). Such discussions and sessions motivate employees to make significant contribution to the operations of Twinings.

Internal communication of the company is well focused on delivering motivating messages from its senior leadership team that is clear, confident and consistent in their communication (Basis, 2012). The aim is to involve the people across levels and get a more engaged workforce under structured framework of communication.

## 2.2 Five performance objectives of operations management

**Quality**

Twinings work with the major aim of ensuring high quality in its products and services as the company believes in creating reliable improvement on a regular basis (Mackman, 2013). To ensure this, Twinings implement differentiated strategy for gaining a competitive advantage and thus offer innovative products and services to meet expectations of customers (Mackman, 2013). In future, the company is expected to build close relationship with its customers along with the suppliers. This will help the company in developing new products and services that are based on demands and expectations of customers and new resources available from a satisfied group of suppliers.

**Speed**

Twinings have a strong market share in tea industry of the United Kingdom. However, it is necessary to maintain speed in adapting with changing needs of the market or customers (Basis, 2012). On this level, Twinings fails to maintain a speed in light of developing differentiated products and services.

**Cost**

Twinings spend huge money to develop and offer differentiated products and therefore have high cost of production making the final product expensive in comparison to products of its competitors (Lane4, 2015). This factor acts as a major issue for the company where there are fewer barriers to entry. Therefore, it is necessary to reduce the cost of operations as well as manufacturing to increase the resources of the company to develop better services.

**Planning and control**

The focus of Twinings remains on process of transformation conducted to change raw material to packaged products for the customers (Twinings, 2016). With the aim of delivering high quality products, the company has a strong focus on efficient management, planning and monitoring of all the processes and procedures followed at the manufacturing unit (Twinings, 2012. Here it is necessary to understand that the company should emphasize on four key characteristics namely, volume, variety, variation and visibility while aiming to meet the requirements of the customers in the industry.

Twinings need to ensure a balance between high quality products and volume of production to ensure optimum level of input and output to reduce cost. Then, company should create a balance between variety of products and production flexibility and the standardized procedure (Simona, 2014). The trend of drinking tea may change resulting in focus on some healthier flavors in comparison to regular flavors (Mackman, 2013). Variation calls for being flexible in offering same products, like, people may demand larger packets at cheap price while some others may demand small packages on an occasional basis. Twinings need to focus on such difference in profile of customers to satisfy the needs and expectations of every target group in the market. Finally, visibility is related to ways through which the company reaches its customers. The company here can focus on social networking of the Internet marketing along with traditional source of marketing (Cole and Kelly, 2012). The focus on Internet visibility will help in reducing the cost of marketing thereby improving the appearance of the brand among a wider group of customers (Cole and Kelly, 2012).

Along with this the process of monitoring and control focus on the functions like that of motivating employees, health and safety of product users as well as of employees and the infrastructural flexibility at the manufacturing units of the company.

**Supply chain and quality management**

The system of supply chain in an organization is focused on people, activities, information and resources involved in transferring of goods and services from the supplier to the manufacturer and finally to the customer. These activities involve transformation of natural resources, raw materials and components to finished products that is expected by the final customers. (Simona, 2014)

The commitment of Twinings is on conducting sourcing activity in a sustainable manner where company source raw material from several different suppliers ranging from small-scale farmers to large scale organizations (Twinings, 2016). Most of the raw material required by the company is agriculturally based while some others are sources from developed nations too.

There are five key standards of sustainable sourcing that are followed by Twinings. The first one is membership of the Ethical Tea Partnership (ETP); that offers regular training to suppliers to improve standards and collaborate with certifying schemes (Twinings, 2012). Further, Twinings work with Rainforest Alliance and Fairtrade and the Twinings Ovaltine Code of Conduct to provide a social standard to suppliers and partner in community initiatives such as Save the Children to support the needs of Chinese tea communities (ABF, 2012).

The focus of supply chain management remains on facilitation of communication with suppliers through an effective interaction. Twinings focus on flow of information within the organization, with the warehouse resource planning and also with the customers to ensure their satisfaction and meetings their needs and expectations.

To make this system more efficient in nature, Twinings should implement total quality management (TQM) in its supply management function. This will help the company to remain focused on high quality of products and services to meet customer expectations and maintain a loyal customer base over the long-term. Through TQM the concept of supply chain management will also become efficient on supplier side motivating them to improve the services and logistics on a regular basis (Greasley, 2009). At the same time, the employees at the company will also be motivated to emphasize on effective interaction, commitment and ability of bringing in innovation and improvement and develop a strong culture within the organization as the key factor associated with total quality management (Greasley, 2009).

## 2.3 Summary

In order to make the operations management much more efficient at Twinings, it is required that the company invest time and money to restructure the system of operations, development of marketing and offer training and development opportunities to employees with the aim of maintaining adequate knowledge and skills across the organization. However, such changes will pose a challenge to the company, as it will require a complete cultural change across the organization. It may give rise to conflicts among people as they may take a long time to adapt to new operations. Further, it will be expensive for the company to switch to a new system of operations, which makes it important to explore the potential risks and benefits of implementing the new system in the light of expected cost of such a change at Twinings.

# 3. Integration of Information Systems

## 3.1 Information System

Information systems are related to collection, retrieval, storage and interaction of the system with information from internal operations as well as with external environment with the aim of making effective decisions and ensure better control, effective communication, coordination, analysis and visualization of procedures (Norman, 2009). From the perspective of business, an information system offers solution to the challenges being faced by the firm through combination of various elements of management, organization and technology (Harrington, 2010). This particular system has the potential of offering solution to various issues faced by company in the areas of leadership, strategy, organizational behavior and some key elements of hierarchy, culture and processes.

## 3.2 Information System at Twinings

Twinings introduced a project associated with information system during the year 2006 with the aim of addressing issues arising out of expense management (Twinings, 2016). Such a system was focused on manual updating of information related with different transactions and procedures.

However, Twinings have been using business intelligent systems to improve decision-making capabilities at various levels and influence the commercial objectives in a positive manner (Mackman, 2013). Considering the global business operations of the company, a robust IT system of Twinings helps it in supporting the on-going business and major projects of the organization. Further, SAP deployment of the company has remained efficient in developing automated transports with the help of Basic Technologies (Lane4, 2015). Earlier, the system was completely manual in nature making it difficult for employees to bring in efficiencies in processes. Twinings focus on reducing time consumed in implementation of SAP change, achieving reductions in system downtime and bringing in productivity improvements across the SAP project teams (Basis, 2012).

Despite of automation and information systems introduction to achieve commercial objectives, it is necessary that Twinings implement enterprise applications at various levels of the organization. Such a process will improve the efficiencies of process and make them much more flexible and adaptable to changing needs and demands of customers (Basis, 2012).

## 3.3 Organizational boundaries

There are two major propositions associated with organizational boundaries, of which the first says, the organizational boundaries are determined by decisions taken in relation to transaction costs and economies of scale and scope of activities (Wilson and Schooler, 2009). The other proposition says that one decisions have been made, there are chances of sedimentation of boundaries as they become entrenched because of technological, organizational and relational dimensions (Greasley, 2009). Therefore, while analyzing organizational boundaries it is required that different types of boundaries namely, horizontal, vertical, external and internal along with their different dimensions of technology, relational and organizational are well studied.

## 3.4 Vertical integration and outsourcing

A key decision associated with implementation of information systems is related with vertical integration that defines whom the company considers its customers, suppliers, competitors and partners (Brickley et al., 2012). The decisions associated with activities to be conducted in-house and those to be outsourced have a significant impact on competitive advantage of the company. Here the consideration of transaction cost theory (TCT) is important that explains the cost involved in using a market. As per the theory, when companies make an attempt to make a decision related with choice of using the market or to produce products or services on its own, it is necessary that some significant transaction costs be considered before taking up the final decision (Brickley et al., 2012). These transaction costs include the cost of operations, cost of contracting, and cost of monitoring and coordination (Guraxani and Whang, 2006).

Twinings presently work on vertical integration that proves to be too expensive, inflexible and distracting in nature. It fails to give importance to the fast-pace of present day business environment. Twinings need to focus on the total system cost and implications of in-house operations on those costs (Mackman, 2013). Such an analysis will help in deciding which activities can be outsourced to achieve a competitive advantage and low cost of operations at the company. Here an asset-based approach can be used to take decision of vertical integration and outsourcing considering the importance of information, goodwill, intellectual property and knowledge in achievement of competitive advantage (Grossman and Helpman, 2008).

The manufacturing unit of Twinings needs to focus on integration of process control systems and machinery using proprietary formats of data and messages. Different operating systems and different networking technologies can be frequently integrated at the level of production. However, it is required that these systems are fed with control data stemming from various systems of planning and scheduling used at high levels and then the lower level systems of application should pass the collected data upwards. For instance, Twinings can implement some modules of ERP package in integration to Manufacturing Execution System (MES).

Twinings can gain competitive advantage in its operations through integration of Process control systems, manufacturing execution systems, supply chain management, enterprise resource planning, data warehouse and decision support applications (Figure 1).

Figure 1: Integration of different information systems at Twinings

## 3.5 Designing and managing operating networks

In order to gain competitive advantage it is necessary that the firm’s manufacturing unit and external suppliers work together in coordination with each other. As discussed by Porter (1985), the issues related to manufacturing network need to be studied in two areas of coordination and configuration. The aspect of configuration is related with the network design including the location of manufacturing unit and their network of suppliers while the aspect of coordination is related with the management of a given network. The design aspect concerned with location and suppliers need to work in coordination with the aspects of risk management, site competence and alignment of performance to competitive objectives.

Twinings need to focus on better management of risks to achieve the competitive advantage along with focusing on better alignment of performance with competitive objectives of the company (Harrington, 2010). It is to be noted that Twinings consider quality of products to be its highest priority but the products of the brand are highly priced in comparison to that of competitors. Therefore, lowering of operating cost through integration of information systems and better information management is necessary so as to pass on he benefit to customers in the form of competitive pricing of products (Brickley et al, 2012). Furthermore, the choice of external suppliers is a major consideration while designing and managing operating networks. Here also cost should be the most important factor where some parts of the manufacturing network may be outsourced to achieve reduction in operating cost at Twinings.

## 3.6 Creating competitive advantage through new process development for Twinings

Twinings face the issue of working with inflexible operations that are unable to meet the changing needs of customers. It needs to be understood that maintenance of competitive advantage is a dynamic process as there is no sustainable competitive advantage in present day changing business environment (Watson et. al., 2005b). Therefore, it is necessary that new processes and products be introduced in a timely manner as and when the change in expectations is reported (Van de ven and Poole, 2009). A process approach that integrates with radical innovation and focus on continuous improvement is required at Twinings to resolve the issues of adaptability.

Here the context of dynamic capabilities theories should be considered to define the procedure. The theories explain that way dynamic capabilities of the organization related with integration, building and configuration of internal and external factors results in meeting the needs of rapidly changing environment (Vicente, 2006). There are four different approaches under the theory of dynamic capabilities, namely, organizational approach, strategic approach, technology approach and evolutionary approach (Vicente, 2006).

Twinings should focus on evolutionary approach where dynamic capabilities are required to modify the exiting procedures resulting in differentiation in processes as well as the final products and services. In other words, this particular approach of dynamic capabilities will help in responding quickly to the changing needs of the environment and customers through effectiveness and promotion of capabilities that are dynamic in nature (Watson et. al, 2005b). The cost efficiencies should have balance with flexibility where manufacturing unit needs to be more flexible while maintaining delivery speed and cost efficiencies at the same time. Such steps will improve the delivery dependability as well as the quality of the manufacturing unit and helping the company achieve competitive advantage in the market.

## 3.7 Recommended information systems for Twinings

It is recommended that Twinings implement Enterprise System or Resource planning (ERP) along with Supply Chain Management system (SCM). Such systems can be integrated with the existing SAP system of Twinings that will help in reducing expenses and improving the management processes as well as financial systems working in fully automated manner.

Further a system of customer relationship management (CRM) should be introduced at the manufacturing unit of Twinings to manage relationship with actual users of the products and services, which will result in optimization of revenues and increasing satisfaction of customers. Such an information system will help in collecting information from customers related with their needs, level of satisfaction and expectations from the organization. This information can be used to design strategies focused on attraction and retention of profitable customers.

In this particular part of the report, the focus is on analyzing the integration of an information system to determine organizational boundaries. Therefore, the focus of analysis will be on analyzing vertical integration and outsourcing, designing and managing operating networks and creating a competitive advantage through new process development for Twinings.

# 4. Organizational behavior in light of emerging technologies

Emerging technologies are necessary to increase efficiencies and effectiveness of various existing operations. Twinings can use the emerging technologies to increase effectiveness and efficiencies in agriculture. As argued by Gitelson (2003) the efficiency of processing can be increased through close systems of ecology such as green house and the automation machinery. Secondly, advancements in the media technology can be implemented in business functions of marketing, research in customers and suppliers helping visualization of attractive advertising to customers.

Furthermore, the emerging technologies have the potential o increasing the automation level thereby reducing the cost of operation as well as errors. It can also reduce unnecessary progress through usage of information available to redesign workflows and processes of business, thereby making the decision making quick and more responsive in nature. Thus, there are several systems associated with emerging technologies and that of information that can be used to bring in revolution to the operation.

**Organizational behavior at Twinings**

Twinings work on the system of lean production where dynamic work teams are involved in manufacturing unit of the company. The aim of these particular systems is to bring reduction in wastage and redundancies. Here supplier are linked with each other and with producers to increase the speed of supply and bring in efficiencies in supply chain of the company. Under such procedures, there is a possibility of flexibility and learning to bring in improvement in organizational performance. The use of emerging technologies improves the efficiency and effectiveness of lean production offering employees to develop better skills and gain knowledge through learning while working.

**Emerging technologies and changes in Job design**

The advancements in agricultural technology can reduce workload of people creating efficient results and reducing time spent on various processes. In other words, it will change the level of work from heavy workload to highly skilled workforce (Norman and Ruffle, 2011). The advancements in media technology provide the opportunity to improve the communication between marketing team and prospective customers and motivate them to improve their level of creativity and innovative ideas (Saloner et al, 2012). Such emerging technologies offer marketing personnel the opportunity to perform better in the marketplace by improving their skills and knowledge and competing with each other.

The tea industry is being remarkably changing with the advent of disruptive new technologies and social media. A major technological change is associated with 3D printing offering the development of new teas to a complete different direction (forum for the Future, 2014). Also the development of ready-to-drink teas and composite products are offering new opportunities in the field of tea manufacturing. Further, there are advancements in communication technology allowing more interaction among employees, transparent communication between customers and the company and with the employees too (Forum for the Future, 2014).

Such changes and development in the industry have changed the job design where highly skilled people well versed in technology are demanded for various positions. Such technological developments will raise employer demand for skills stimulating the supply that meets future needs more specifically. New job designs are focused on exploiting new skills and capabilities to achieve competitive advantage. Here, technical staff will be required to work with new materials at the manufacturing unit and skills related with commercialization of new materials will be in demand (Chiou, 2011). Additionally, new job designs need employees to have strong communication skills, as they need to interact directly and get feedback on products and services.

Such a changing environment and job designs may result in resistance from employees that needs effective motivational strategies to ensure high productivity and efficient performance of employees at all levels (Shahmansouri et al., 2013). Employees must be well informed about the technological changes and the impact of such changes on their job, working styles and communication patterns with each other. In order to keep the workforce motivated in the scenario of emerging technologies, it is necessary to offer them regular training and development opportunities to ensure sharpening of present skills and acquiring new skills to use latest technologies (Shhmansouri et al., 2013).

Here Herzber’s theory can be used to motivate employees through seven major principles. Here motivators in the form of responsibility and personality achievement, responsibility and recognition, responsibility achievement and recognition, internal recognition, growth and learning and responsibility, growth and advancement can be implemented to keep the workforce motivated towards acceptance of emerging technologies and bringing in change in their style of working (Miner, 2009).

# 5. Conclusion

there are several areas where operations management of Twinings need improvements and modifications. It is possible to improve the levels of productivity and efficiencies of operations through introduction of information systems at each level of the organization. An integration of information systems with operations at various levels and use of emerging technologies will result in timely availability of required information. Such timely information can help in ensuring optimization of stock and adapt to changing demand in the market along with conducting a regular comparison to inventory levels and customer demand on year-to-year basis.

Furthermore, Twinings can use information systems like data-mining and intuitive analysis to get timely information about needs of customers and satisfy the needs with latest products and services. A well-designed information system will also assist operational managers at all levels to make effective decisions and reduce cost and improve satisfaction of customers through timely efficient information related with the marketplace.

Such an efficient operations at Twinings with focus on information system will result in better integration and long-term relationship with suppliers as well as retailers thereby increasing awareness of customers and improving the current line of products and services based on active and regular feedback from the real-time marketplace. A strong competitive advantage can be achieved by the company through efficiencies in operations, reduction in cost, development of products and services and improving communication and relationship with suppliers and customers.

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