

The Strategic Innovation of Taiwan Sugar Corporation- Perspectives toward High Value-added Services

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Abstract

Markets in manufacturing industry have become highly turbulent and competitive are continuously changing from being simple to complex, from stable to dynamic, and from tame to hostile. This case study focuses on Taiwan Sugar Corporation (TSC) which belongs to a state-owned enterprise. The study is based on several aspects of servitization, which is a form of service differentiation used to take advantage of financial, strategic, and marketing opportunities. Numerous in-depth interviews were adopted with experts for strategic innovation on TSC high value-added services. In the early stage, TSC belonged to the manufacturing industry and conducted a mode of business-to-business (B2B) operations. To date, TSC has transformed its business model significantly. For example: business to customer (B2C) is conducted for our hypermarket. In this study, TSC adopts strategic innovation and promotes the practice of servitization. TSC has implemented the concept of service innovation to create value innovation under the developing trend of globalized industry.

Keywords: *Taiwan Sugar Corporation (TSC), Servitization, Strategic Innovation, High Value-added Services*

1. INTRODUCTION

Taiwan Sugar Corporation (TSC) is founded on the production and the distribution of agricultural products. TSC belongs to a state-owned enterprise that is divided into eight separate business entities to fully utilize its resources of machines, facilities, manpower, and other related resources. Therefore, TSC did not have any contact with customers who are end-users. Although the price of sugar has tended to be on the increase recently, TSC's overall operating environment has changed dramatically in recent years for other reasons. Due to the process of globalization, regional integration and changes in the economic policies existing across the Taiwan Straits, local enterprises have been confronted with significant changes. These challenges may be definable in terms of the rise of emerging economies and the trend towards business internationalization. Based on the consideration of competition in a free marketplace, the innovation of organizational strategy and the ability to exact change are all necessary considerations. They are also the key factors to be considered in the transformation of state-owned enterprises into private enterprises and finally into becoming real multi-national corporations. Operational structures could be, therefore, rationalized and efficiently administered; and as a result, the competition would also be vastly increased.

Taiwan Sugar Corporation (TSC) is founded on an agricultural base. The sugar industry accounted for 74 percent of the Taiwanese nation's total foreign exchange earnings at its peak in 1960, and it started a brilliant "Sugar Era" for more than forty years to follow. The sugar industry promoted real prosperity in rural areas and also succeeded in the development of Taiwan's overall agri-business industry. However, due to a significant change in economic structuring, the proportion of sugar industry within the economy has seen a steady decline. In order to respond to changes in the industrial environment, TSC has established eight diversified businesses to make better use of its land holdings and core technologies. It is anticipated to create a new "*blue ocean*" for TSC to carry out strategic innovation under the concept of "high value-added" service known as servitization.

2. LITERATURE REVIEW

In the past, manufacturing companies have always been considered separately from the service industries. Recently, service capabilities in manufacturing sector seems to have become a popular research area (Gebauer, et al., 2005; Homburg, Fassnacht, et al., 2003; Mathieu, 2001a,b; Oliva, & Kallenberg, 2003). Since the 1980s, manufacturing companies have experienced a service revolution in order to survive in the competitive and dynamic business environment of a globalized economy. Manufacturers have invested significantly in service-specific capacities. Some surveys illustrate that investment in the service business still remains low.

In order to expand the traditional functionality of a product by integrating additional services, the notion of servitization has been widely proposed. Baines, et al. (2007) emphasized servitization as the 'sale of use' rather than the 'sale of product'. Morelli (2003) perceived 'servitization' as the evolution of product identity based on its material content. Servitization achieves differentiation through the integration of product and services; and for the customer, servitization is seen as providing value through the achievement of higher quality and customization. The service factor represented by servitization delivers new functionality better to fit customer needs (Cook, et al., 2006) and removes bureaucratic administration or monitoring tasks away from the customer's view. The primary business benefit derived from servitization is seen through an increase in the number of service components utilized to make

improvements in total value for the customer. For manufacturers, the potential to use their existing technical knowledge to discover ways to provide the same, or better, value in-use while using less energy or substance to offer the potential reduced costs (as well as environmental impact) (Baines, et al., 2007). This means that servitization offers a higher value that is more easily differentiated for providers. It releases manufacturers from the responsibilities of asset ownership; and finally, it offers a more sustainable approach to business and society as a whole. Servitization can transit from being an absolute goods provider to a service provider for a company (Oliva, & Kallenberg, 2003). Servitization stands as an alternative business logic for many manufacturing firms. Accordingly, products will only become a supplement to the services provided; and, as such, revenue and profits are mostly seen to contribute to the service sector (Oliva, & Kallenberg, 2003). Finally, environmental dynamism requires the development of new competencies because current products and services will become obsolete over time. Customer orientation which is based on increasing customer satisfaction to aims to create opportunities and maintain competitive advantage represents the promise of implementing servitization (Shah, et al., 2006).

The performance implication of servitization determines the need for a better value creation and appropriation adoption process (Gebauer, et al., 2012). Researchers have been specifically interested in the occurrence of 'pure' service sectors such as healthcare (Hyer, et al., 2009), retail and e-retail (Boyer, & Hult, 2005; Davis-Sramek, et al., 2008; Rabinovich, et al., 2008; Rosenzweig, et al., 2011), professional services (Goodale, et al., 2008) and hospitality (Kimes, & Thompson, 2005), while services in a manufacturing context have been presented relatively less study. Scholars have identified the difficulty in implementing services in a manufacturing environment (Fang, et al., 2008; Guajardo, et al., 2011; Suarez, et al., 2013; Visnjic, et al., 2012). Implementation obstacles range from a lack of concentration from top management, insufficiencies in organizational design and information technology, a lack of an appropriate culture, to deficient capabilities for service management (Gebauer, et al., 2008; Neu, & Brown, 2008; Oliva, & Kallenberg, 2003). The very real potential of services for revenue creation and customer satisfaction are recognized by more and more traditional manufacturing companies. Therefore, enabling manufacturing companies to create competitive advantages would be the absolutely critical factor for a continued revenue stream. However, not every manager and employee are motivated to extend the services that companies invest resources into because they do not share in this vision. The behavior inherent in traditional ways of doing business has made it necessary to overcome among the manufacturing industries. Managers must not only identify the financial opportunities and risks, but they must also formulate enhanced managerial actions to achieve long-term company goals. In this way, managers have to recognize the importance of intangibles goods (services), to create a service-related climate and culture, and to develop the interpersonal skills to generate regular customer contact (Homburg, et al., 2003; Oliva, & Kallenberg, 2003). Some authors argue that managers should make every effort to develop a committed service strategy and to expand their existing service orientation. In order to increase the quality of customer relationships and service profitability information systems, the entire organization has to establish a corporate culture and formulate sustained human resource management (Gebauer, et al., 2005; Schuh, et al., 2004). In sum, existing literature on service management in manufacturing companies has detailed the construct comprising intensifying personal relationships with customers, enhancing customer satisfaction, and generating loyalty. Clearly, manufacturing companies realize a higher marginal profit line in services than in products. Therefore, the total revenue derived from services will increase overall profitability for most manufacturing firms (Gebauer, et al., 2005; Schuh, et al., 2004).

In response to constantly dynamic market conditions, manufacturing firms have initiated more customer-oriented innovations to meet sector needs (Johnson, & Selnes, 2004; Narver, & Slater, 2000). Consequently, products positioned as added value to the services have become the center of the total revenue contribution. In manufacturing firms, service differentiation, transition from products to services, service development, and high-value solutions are various terms used to describe servitization (Davies, 2004; Gebauer, et al., 2011; Gustafsson, et al., 2010; Oliva, & Kallenberg, 2003). Service differentiation involves taking advantage of financial, strategic, and marketing opportunities in the marketplace. Services are unique intangible goods, and they are difficult to imitate because they conduct a co-creation of value based on the competencies of both the firms and the customers (Matthyssens, et al., 2006; Vargo, & Lusch, 2008). Combining servitization with innovativeness and customer orientation can translate into valuable resources that are neither imitable nor substitutable (Hoopes, et al., 2003). Only the combination of service differentiation along with other components can maintain above-industry average performance in the long-term.

Consequently, customers regard an organization to be a service provider, and servitization focuses on services as the core contribution with the development of new products, processes, organization system or services to result in competitive advantages (Hurley, et al., 2004; Jacob, & Ulaga, 2008; Neu, & Brown, 2005; Oliva, & Kallenberg, 2003). Servitization captures customers support services, integrated business consulting and operational service in one practice. On the basis of experience, strategic consultancy advice is necessary to identify problems in the customer's organization and to analyze the customer's business (Davies, 2004; Davies, et al., 2007; Gebauer, 2008). Servitization becomes a strategy and business logic in manufacturing companies, particularly in a service setting. It should not be surprising that loyal customers are easier to serve, and loyal customers are much more profitable than new customers since new customers engage more complexity. In sum, servitization grows the intensity of customer interactions and helps strengthen the relationship between customer orientation and business.

3. CHALLENGES CONFRONTED BY TAIWAN SUGAR CORPORATION

Recently, TSC has actively adopted diversified managerial strategy to develop its business by using existing lands, human resources and core technology. It not only preserves the existing sugar industry, but it also works on using land resources more efficiently in order to develop diversified businesses. Generally speaking, TSC is facing the following challenges which have remained as of yet to be solved:

3.1 Effective Use and Re-Training of Human Resources

TSC salary has been highly correlated with the practice of seniority in state-owned enterprises. However, the professional abilities of many senior employees may not have maintained pace with the rapid changing society, technological training, and the professional needs of the enterprise. Because of the traditionalized identity of public servants, layoff seems to be difficult. As a result, TSC might face the problem of an aging human resources structure.

3.2 TSC Still Needs To Work On A Diversified Managerial Strategy To Determine Whether Synergy Could Be Created And Whether Resource Could Be Used Effectively.

TSC has 8 businesses, 5 other vital professional enterprises, 6 overseas branches, and 19 reinvestment companies. Because of the highly diversified nature of management, resources are not distributed effectively at this time. Despite related diversified businesses, TSC runs some additional

unrelated, diversified businesses. Therefore, low effective distribution of resources occurs and mutual cooperation and support are seldom achieved. As a result, a long-term deficit exists in some TSC business units. It has become an obstacle to the growth in some of the better-achieving businesses which must support the lesser-achieving businesses. Besides, by its own admission, TSC now owns too much unused and underdeveloped lands. The method of how to utilize land holdings and to bring corporate benefits is the key point to be sincerely considered when implementing strategic innovation.

3.3 The Future Development Of TSC Should Involve Adopting Strategic Innovation And Promoting Servitization Along With The Concept Of Service Innovation To Create Value Innovation Under The Developing Trend Of Industry.

TSC has been diversifying its businesses areas that range from sugar, hypermarketing, biotechnology, agriculture, animal industry, marketing, petroleum, to leisure businesses. It has also developed its business in the direction of health industry-oriented businesses. Land development and biotechnology are two spin-off businesses for TSC in the near future. Tourism and leisure business are promoted actively, especially leisure and recreation businesses catering to the general public. Leisure and recreation business has become a vital part of TSC's land-development plans, and it forms the main stream of industry tourism development for the firm. In sum, it is inevitable that TSC needs to promote competitive advantages by actively adopting strategic innovation goals. In terms of its businesses, ranging from manufacturing industry to service industry, the successful foundation of strategic innovation should be based on a promotion of high value-added services so that higher value innovation is created for TSC in the next era.

4. STRATEGY INNOVATION ON TSC HIGH VALUE-ADDED SERVICES

The case study presented was based on five aspects of servitization found in Chen (2009) and taken from Chung-Hua Institution for Economic Research (CIER). In-depth interviews were adopted with local experts involved in the strategic innovation practices involving the formulation of TSC high value-added services. The subject was the head of planning department, Mr. G. Data was collected by telephone interview, recording, compiling, and dictating. In order to collect a complete set of data, interviews were recorded and then transcribed. When compiling the data, the structure of interviews was often adjusted to provide the best framework. For the accuracy and completeness of data, the content of interviews would be reconfirmed if there were any missing parts or questions. An explanation of established TSC high value-added service is presented as follows:

4.1 New Concept Of Value-Added

Market research would be adopted for consumer research, so TSC has also performed research regarding its brands. Consumer research was conducted for different purposes, such as focus shift. As for brands, businesses are diversified within the corporate structure of TSC. Brands have been followed by products. The concept of diversification is carried out in advertisement for creating a stronger brand impression among potential consumers. Market communications are also consumer communications which tend to be diversified. TSC also handles consumer complaints for making corrections for internal control and SOP for crisis management. The customers pay for using an asset, rather than for its purchase, and so TSC benefits from a reorganization of the risks, responsibilities, and costs traditionally associated with ownership practices (Baines et al., 2007). Similarly, TSC's suppliers/manufacturers can directly

influence their competitiveness by retaining asset ownership that can boost utilization, reliability, design, and protection (Baines et al., 2007). Therefore, manufacturers sustain their competitiveness; however, they should focus on delivering knowledge intensive products and services (Hewitt, 2002). Such actions reduce the total cost of a product with the adoption of competitive strategy that uses product, process, and customer knowledge that generates income (Mont, 2000, Meijkamp, 2000, Manzini and Vezzoli, 2003). Most authors see the purpose of a competitive proposition, and indicate the need for customer satisfaction and economic feasibility whether in manufacturing- or service-related sectors.

4.2 New Model of Revenue Generation

In the early stages, TSC has belonged to the manufacturing industry and has conducted itself in a business to business (B2B) operation mode. Therefore, TSC has not had any traditional face-to-face contact with its customer base. Although the price of sugar has tended to increase recently, TSC has transformed its business. For example: business to customer (B2C) is conducted in the firm's hypermarket. TSC has also had to make some considerable adjustments such as the creation of a customer service department in order to deal with questions related to customer complaints and after-sales services. TSC has become more systematic and organized due to direct customer interaction.

4.3 Definition of Ownership for Object of Transaction

According to the new definition of ownership for object of transaction (such as providing functions or access rights), TSC has followed the related regulations of a state-owned business related to service contracts, financing and loans, installments, and coordinating services with financial institutions and charging. The price of goods, such as sugar, oil, and pork etc, would fluctuate according to market needs. However, a portion of the prices would not have significant changes for TSC since it is a state-owned enterprise and has responsibilities for stabilizing the prices it offers.

4.4 New Core Competence/ Platform

TSC responds to customer needs by mastering unique core competencies or through creation of a new platform. Services are provided in different stages. According to different attributions, TSC is divided into eight businesses. Each business plans its service procedures, information management system, and enterprise resource planning independent of the others. In terms of the products and market positioning, each business establishes its service and marketing management, customer interface and strategic alliance with wholesalers and retailers in mind.

4.5 New Business Organization

TSC needs to respond to the new concept of value, adjust the types and functions of organizations, and redefine the processes of production. In order to deal with the recession in the global sugar industry and to the needs of current markets, TSC must fully utilize the resources of machines, facilities, human resource, and other related resources. The 8 TSC businesses should not only maintain cooperation among wholesalers and retailers but also make rapid improvements in response to market needs and changes as they occur.

5. CONCLUSION AND IMPLICATION OF MANAGEMENT

The successful factors for promoting strategy innovation of high value-added service in TSC are carried out in the following manner:

5.1 Ability of Customization

In response to the rapid marketplace changes and increasing needs for innovative products and services from customers, the enterprise would have serious impact if rapid changes were not be made. The responsibilities of ownership lie with the customer. Innovativeness refers to a firm's capability introduce new products, processes, services, a new administrative system or ideas in the organization (Hult, et al., 2004). At an early stage, the competitors and consumers of an innovative company perceive the company as being capable to utilize state-of-the-art technology and introduce creative goods or services. Customer orientation helps firms realize, recognize and deal with individual customer needs and meet their preferences (Shah, et al., 2006). Consequently, firms will become more customer oriented and do more marketing investments in order to improve their financial performance (Rust, et al., 2004; Shah, et al., 2006; Venkatesan, & Kumar, 2004). Customer orientation helps companies and consumers to co-create knowledge on the shared basis of requests and preferences. That establishes an entry barrier for competitors wishing to enter the market.

5.2 New Organization for Enterprise

The organization needs adjustments for rapid changes of the environment. Appropriate centralization and formalization are able to facilitate the level of organization innovation. There might be a lowered level of organization innovation for highly complicated organization. A significant positive correlation exists between creativity and organization innovation. Administrators should investigate the environment, adjust the organization accordingly, and promote creativity so that the ability of organization innovation is advanced under the prerequisites of mutual cooperation among individuals, organizations and environments. The findings resulting from this case study imply that TSC managers and employees should place their efforts on the establishment of a learning orientation to create innovativeness and to achieve performance. Innovation is the implementation and introduction of new concept and ideas. Subsequent findings show that innovativeness and performance in manufacturing firms commit a continuous input to learning (Lofsten, & Lindelof, 2005; Madsen, 2007). Hult, et al., 2004 consider innovation to be a part of an organizational culture of innovativeness. The learning orientation itself is a crucial driver for a firm appears to create intangible assets such as knowledge or registered technology in an innovative manner as a result (Rhee, et al., 2010). Therefore, top managers of manufacturing firms are advised to make their efforts towards increasing improvements in the rate and quality of innovativeness, with a particular continuous learning practice to obtain greater business performance. Learning-oriented practices have the potential to create state of art knowledge and enhance innovativeness. Learning orientation gains a greater understanding of consumer needs and competitor behavior through transferring new knowledge to innovative practices (Rhee, et al., 2010). Openness includes whether the employees of an organization consider the adoption of an innovation as requisite (Hulta, et al., 2004). Without the capacity of innovation whenever investing time and resources in the study of markets, organizations will be unable to translate this knowledge into practice. Learning orientation and development of new knowledge is directly associated with new product success (Calantone, et al., 2002).

5.3 New Internal Control

In response to a rapid change of markets, businesses should manage the needs of customers, including delivery time, price and quality of both goods and services. Systems need to be established to manage the materials and suppliers during the processes of distribution production and logistics in order

to promote organizational performance. Hult, et al. (2004) state market orientation is a configuration of 3 sets of activities: customer orientation, competitor orientation, and intelligence across inter-functional. As a large firm, updating its assets and capabilities concerning its crucial activities needs commitment to learning (Wang, 2008). A firm may have considerable difficulties in survival it is less learning-oriented than its competitors. Learning in organizations can be promoted and conducted when influenced by or correlated with certain influences (Alegre and Chiva, 2008). Manufacturing firms build a barrier for competitors in both directly and indirectly conditions to difficult 'catch up' and this situation leads to sustainable competitive advantages and attractive margins. As a result, firms should continuously search for new products and services to meet customer preferences and to conduct innovative behaviors with the aim of achieving superior performance (Hult et al., 2004). Such behaviors may involve inviting customers to work with or co-design new products or services, or finding new ways or new technology to create value. An improved learning orientation has the potential to influence behavior through the values and beliefs found within the culture of an organization. As with customer and market orientation, the top management should need to perpetually establish a learning orientation across the entire firm in order to engender the various benefits. Manufacturers make contributions by providing services to supplement their existing products throughout the products' life cycle (Kastalli, 2013). Open service innovation (Chesbrough, 2011) can be seen emerging as an organization's innovation capabilities by creating a shift from products to product-service systems. *The World Business Council for Sustainable Development* identified 'service extension' as one of the four important components in eco-efficiency (Mont, 2004a; WBCSD, 1996). The addition of services such as maintenance, upgrading and reproducing extends product life and so reduces product turnover (Mont, 2004b).

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