# An empirical investigation of the development process and capabilities of servitization: From OEM/ODM to OBM

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## Abstract

Due to the shrinking profit of OEM / ODM, the manufacturers were definitely seeking new ways to transform themselves. This paper research on three OBM companies transformed from OEM / ODM. When transforming into OBM in the process of servitization, there are four stages which represent different roles of the end customers: imitation, exploration, inspiration, and aspiration; there are four main capabilities needed to develop: customization capability, new value proposition, organization redesign, and new trading norms. This research mainly wants to give manufacturers who have motivations to develop into the OBM companies clear paths.

Keywords: OEM/ODM, OBM, servitization

#### Introductions

OEM (Original Equipment Manufacturing) and ODM (Original Design Manufacturing) have been one of the major manufacturing types for Taiwanese companies in the past decades. By manufacturing and design products for customers from worldwide, the OEM/ODM companies have great contributions to Taiwan's economy and competitiveness in the global supply chains (Yang & Tsou, 2017). However, since the profit of OEM/ODM is declining, more and more companies are seeking a new position in the industry to bring more value to their customers.

"Servitization" is defined as "market packages or 'bundles' of customer-focused combinations of goods, services, support, self-service and knowledge (Vandermerwe & Rada, 1988, p. 316)". With servitization, the boundary between product and service becomes unclear. Companies now not only provide products to customers, but also serve their customers as they need. In light of this, 'servitization' appears to be a new way for the OEM/ODM companies re-positioning themselves in the low-profit business environment. Thus, how companies can successfully transform themselves from an ODM/OEM company to OBM (Original Brand Manufacuring) company is worth a further exploration.

More specifically, the research questions of this study is:

(1). What are the stages of firms when go servitization from OEM/ODM to OBM?

(2). What capabilities do those OEM/ODM companies require for servitization?

### **Theoretical Background**

#### The role of customers in servitization

"Servitization" is largely being driven by customers and a strong customer centricity, concerned about "consumer experience" which means the products should provide what consumers want. Even if this requires the incorporation of products from other companies (Miller et al., 2002; Davies, 2004; Vandermerwe and Rada, 1988). Successful companies recognize the necessity to ensure close customer relationships and establish routines and communications for satisfying customers (Levitt, 1983). Considering customer orientation, services consist two separate elements (1) a shift of the service offering from product-oriented services to "user's processes" oriented services, (2) a shift of the nature of customer interaction from transaction-based to relationship-based (Oliva and Kallenberg, 2003).

#### The process of servitization

Manufacturing companies that decide to take service-oriented strategies have to adapt the necessary organizational structures and processes.

According to Oliva and Kallenberg (2003), explore the factors required when creating "service" in the context of capital equipment manufacturers; moreover, they also suggest a structural approach to navigate the transition in the following steps (see Figure 1.).

#### Consolidating product-related services

Triggers

- 1. Customer's' complaints
- 2. Competition

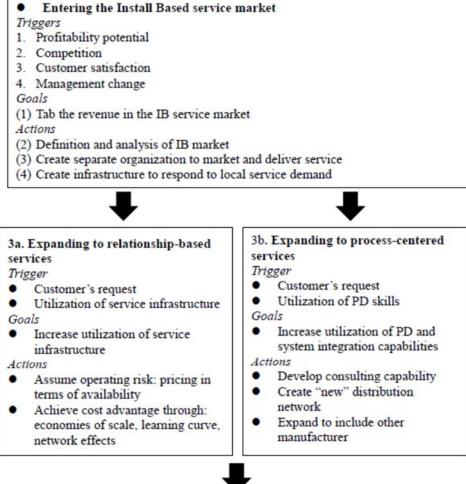
Goals

3. Improve efficiency, quality and delivery time

Actions

- 4. Move services under one roof
- 5. Monitor effectiveness and efficiency of service delivery
- 6. Add services to support quality initiative

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4. Taking over the end user's operation Triggers?? Goals?? Actions??

Figure 1. The servitization process in capital equipment manufacturers

- (1). Consolidating product-related services : The goal is to improve the service performance in the the firm's existing service offering under a single organizational unit and to consolidate it, happening when organizations find out that services are an important component of the consumer satisfaction indicators and want to improve the delivery of those services.
- (2). Entering the installed base service market : Using the profit opportunity

discovered in the previous stage or after seeing a competitor work with high margins in the service market, the firm can set up the structures and processes to exploit it.

- (3). Expanding to relationship-based service/process-centered services : The expansion of the service offering takes place when the core functionality of the service organization has already been set, and may happen through two distinct transformations. First, changing the focus of customer interactions from transaction- to relationship-based; second, changing the focus of the value proposition to the end-user from product efficacy (whether the product works) to the product's efficiency and effectiveness within the end-user's process.
- (4). Taking over the end-user's operation : In this stage, the manufacturer becomes "pure service organization", which includes taking over an end-user's maintenance or operating organization.

Davies (2004) developed a framework to analyze business strategies for developing integrated solution. Researching on five companies in capital goods industry, there are four capabilities need to cultivate, operations, business consultancy, finance and integration.

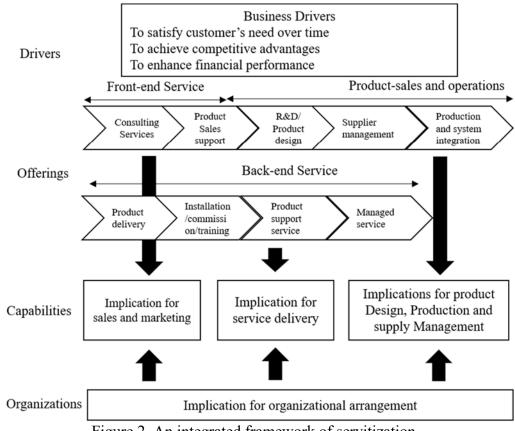


Figure 2. An integrated framework of servitization

Gebauer et al. (2011) integrate the findings of the relevant research into the conceptual framework which contains four parts : drivers, offerings, capabilities and organization (see Figure 2.). Drivers have inspired capital equipment manufacturers to create service offerings that meet customer needs in different levels and adding services into front-end services, product sales and operations and back-end services. To enable capability development and cross-functional cooperation, manufacturing companies

have to transform their organizational arrangements, so they can develop in each valueadded service.

However, these literatures are more for capital goods rather than consumer goods (Davies,2004; Oliva and Kallenberg, 2003), also they are less focusing on the changes from Products to "Back-end services". Shih (1996) pointed out that although the failure rate of OBM is high, it is helpful for manufacturers to have long-term development. This research focuses on manufacturers who changes from OEM/ODM to OBM according to the value stream paths and figure out what capabilities do they need to develop during the changes.

#### The value stream from OEM/ODM to OBM

This paper mainly structures along the continuum of value stream from pure-product to pure-service providers. According to Womack and Jones (1996), value stream identifies the physical activities from manufacturing products to services, flowing from raw materials to the final customer. From the beginning of manufacturing firms moves along the value stream as they develop more product-related service. At the end of the value stream, service organization means their products only accounts for a small part of their value proposition. Oliva and Kallenberg (2003) design a product service continuum to define the changes. This is a continuum from traditional manufacturer where companies merely offer services as add-on to their products, through to service providers where companies have services as the main part of their value creation process This paper mainly focus on the transition along the value stream from OEM/ODM to OBM.

#### Methodology

For the research purpose, qualitative data was collected by employing the case study method. Three companies, Company A, COMPANY B and COMPANY C, providing consumer goods that are based in Taiwan and originally OEM/ODM then transforming to OBM in the past three to five years, were studied. Data were collected via documentation, archival records, and in-depth interviews. Each company was interviewed two to three times and each time was approximately 90 to 120 minutes. The respondents were medium to high level managers in strategic position. As such they could provide their insights regarding the company's position transformation.

#### **Case description**

#### The servitization process of Company A

Starting from manufacturing suitcase and travel-related bags for luxury brand companies, Company A researched on two to three styles which customers ordered for large volume. They tried to understand what kind of texture, color, lock and wheel is favored by customer. They also observed the seasonal change of suitcase's sales and methods to manipulate channels. Usually summer and winter vacation is busy season. However, in this industry almost every season is promotion season; therefore, OEM/ODM becomes a low profit work because brands need funds for promotion to stimulate demand in off-season and to compete with other brands in busy-season. So, Company A decided to found its own brand. Began from low-end suitcase and sold on TV and internet to distinguish itself with customer's brand in order to keep income resource.

To understand customers and promote its own brand, Company A offers service which there is no company offering, suitcase renting and fixing. According to respondent A, after Company A offered these services in a week, they were interviewed by TV programs, and discussed by students in BBS. Since then, many reporters came asking for interview and customers also came to ask for the service. Doing this service needs good relationship with the suitcase component factory because each brand uses slightly different components to make sure its uniqueness. This is the advantage of once doing OEM business, they have network resource about what resource and information others have.

After enhancing brand awareness and with a better understanding of customer's needs, Company A stopped selling at other channel, but only sold at its own shop and online shop in order to lower slotting fee. As the business grows bigger, the organization also changes. Company A develops a marketing & E-commerce department to deal with customers' demand, recruited personnel good at brand and E-commerce operation. They manage online AdWords, an online advertising service that places advertising copy at the top or bottom of, or beside, the list of results searching engine's displays for a particular search query, to make sure the first searching result. Senior managers are cultivated from factory. Use personnel who understand the whole process of suitcase manufacturing, knowing more detailing about the advantage and disadvantage of their products because he can introduce to customer more vividly.

In order to offer better consumer experience, Company A founded second brand "Allez voyager", a brand more expansive than Company A, to offer more fashion styles and use the latest material.

#### The servitization process of Company B

Company B's predecessor started from manufacturing low-end shoes in 1970s. In 1980s, with the change of industrial structure in Taiwan, they decided to move factories to China. Because "EZ capital" is the second professional OEM factory which moves to China from Taiwan and it was the time when reforming and opening in China. They got the right to sell shoes in China faster than others.

There is off and busy season in OEM. For fulfilling the lack of capacity and material inventory, they made boots sold to the north, and unexpectedly sold very well. Since then, Company B has been founded. They have learned the ability of shoes design from America or Europe's customers during OEM. Also, they attended shoe's exhibition to learn design ability. Because business started to be broader, Company B developed sales department to be responsible for brand shoes selling. At first, Company B uses wholesale to approach customers. They think it is the fastest way to approach as many customers as possible.

They recruited a group of designers from different countries to develop the specialty of Company B. Among them, one Italia designer dominates styles for each season. Designers from China are mainly responsible for adjusting design for fitting China customer's preference. make shows twice a year to show Company B's latest design to buyers and they can also communicate their observation in retailing with Company B.

To create a unified brand image, Company B decided to open its own stores and cut the wholesaling mode because wholesalers may be do things harmful to Company B to maximum their benefit. Store developing team responsible for choosing spots and store planning then is founded. During this stage, Company B also import POS system to collect customer's buying information, and found a team with related ability to read those information and combine it with their design ability.

Since Company B is in the brand development of mature, it finds that about 70% of the population in the low income levels in China's economic environment. Therefore, the demand for cheap but a wide range of products and styles is very high. Meanwhile, the brand image of Company B has been shaped in the middle price. In order to meet

the needs of huge consumers and use the ability which Company B accumulated from the past in design and production capacity. Company B began a multi-brand development. The creation of "Shoebox" began in 2004. Shoes and accessories prices fall between 60 to 300 Yuan which can be accepted by the general public.

As for Company B itself, in order to offer more detailed service to its target customers, Company B did their own brands division in the following,

- (1). D18 youth shop: focusing on young and cool products, products emphasize young, lively and other characteristics, in line with the needs of 18 to 25 years old and invites young idol group S.H.E., Taiwan's well-known women's trio singing group, for endorsement.
- (2). D28 classic shop: focusing on ladies and soft shoes, emphasizing on mature, independent women consumers who mainly use fashionable merchandise, in line with the needs of 25 to 45 years old, and invites Ren'e Liu, a famous musicians, actors and writers in Taiwan, for endorsement.

After successful development in China, Company B hopes to replicate the successful business model overseas. The first battle comes in Taiwan since Taiwan and China have similar lifestyle compared to other countries. By international expansion, Company B can continue to deepen the capability of brand management. In addition, Company B also continues to agent the high-level international shoe brand "SOFFT", "BORN", "AREZZO". Expecting to grasp the heart of more and more consumers.

#### The servitization process of Company C

Company C began operating computer motherboard design and manufacturing in 1989. People are not optimistic about its future development under that market environment. But Company C computer entrepreneur see the potential market for computer motherboard, especially high-quality computer.

At first, Company C adhered to high quality products by improving the technology through research and development. This makes them successfully receive many orders for motherboard manufacturing from consumers such as Intel and IBM. At that time, Company C was almost the only one who can follow the trend of their technology and offers them what they need. Since then, Company C also manufactures computer related components. Company C sells component to system providers, such as Fujitsu in Japan or public computers in Taiwan. They have their own notebook, Company C cooperate with them and offer the components they need but paste their brand. At that time, Company C would try to convince their customers to show Company C inside to increased exposure rate.

In 1998, Company C officially introduced their own PC to the market. Because the PC is in the initial stage, this product is thick and heavy. Although no one is optimistic about the sales of their PC, Company C still keeps learning. In 2003, Company C notebook went into a fast-growing outbreak, entering the global top five production. After continuous exploration and accumulation during 6 years, Company C has established a complete set of PC design, manufacturing, sales and service system. PC has grown to become an important product comparing to the Motherboard.

When Company C is in OEM/ODM, it is more belonging to customer management than in OBM. This is very different with managing end consumers. In OEM/ODM, place is where Company C's target customers are, Company C needs to go to them; people are this company's personnel and procurement processes, Company C must know how to organize them in depth, also have to understand everyone's responsibility in that company and also permissions and obligations. As for Price and promotion, they are more indirect. Company C needs to understand customers' price and promotion strategy and then try to support them rather than dominant the price and promotion.

However, when managing the products of Company C, things are different. When there is a product end innovation proposed by R&D team, marketing team would begin to do market research to see if the product meet consumers' demand. Is it a consumerside innovations or simply a product-end innovation? In order to find answers, there would conclude the following things in the market survey to help Company C develop market strategy and make the products step forward: (1) Target customers identification and market segmentation to know information about their target customers and where their target customers' geography is. (2) The difference in the contact media. (3) The feature of their product to customer's demand. (4) Is it an everyday life demand? (5) The real key elements. (6) Are consumers very appreciative about this products?

IT products have relatively short product life cycles. Moreover, as for cellphone or tablet nowadays, they are not purely technology products to customers. Customers are increasingly focused on its appearance or user experience. Therefore, when Company C manages the brand, in addition to product quality, Company C also cares about each part where can contact with consumers. This is also the reason for the change of Company C product slogans.

#### Findings

The case study findings provide an opportunity to consider the value-add stages when manufacturers move from OEM to OBM and the types of capabilities required to complete successfully in the phase of changing. Moreover, it is found that in each stage, the role of customer are considered differently. As summarized in Figure 3., to successfully gain the value of OBM, firms will have to experience four stages, imitation, exploration, inspiration and aspiration. Each stage will need some types of capabilities.

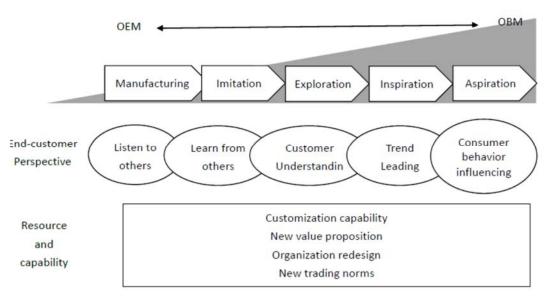


Figure 3. Servitization process from OEM/ODM to OBM

#### The role of customer in each stage

The result first indicates four general steps that the three case companies experienced from OEM/ODM for OBM. They are: imitation, exploration, inspiration, and aspiration. When companies started seeking to provide more service to end consumers, they firstly learned from their business customers, such as product quality, technical skills, and market trends. With this 'imitation', the case companies started to offer their products

to end consumers and care about customers' satisfaction. Then, in the 'exploration' stage, they surveyed customers' unsatisfied needs and adopted these needs into their new product design, as such they were able to differentiate their products with competitors. The 'inspiration' stage then followed, when those companies took advantage of their knowledge about and their relationship with the end consumers. With these knowledge and relationship, those companies educated their end consumers what a fashion and trendy style should be. End consumers now not only received the physical products from the case companies, but also the intangible consultancy service. The companies then were able to make changes to end consumers' lifestyle by entering the 'aspiration' stage. However, according to the case companies, the last stage was hard to achieve and was still a goal for them.

#### The resource and capability needed to reach OBM

The result also indicates four capabilities that required by the case companies when going from OEM/ODM to OBM. They are: customization, new value proposition, organization redesign, and establishing new operational strategy. Because the case companies now provided more customer-centric products to end consumers, realizing customers' needs and producing with customers' demand is critical. 'Customization' thus plays an essential role. Further, from OEM/ODM to OBM denotes the strategic position of the company in the industry changes. The 'new value proposition' thus is obligatory for the companies. This will in turn drive the companies seek and integrate internal and external resources to fulfill this new proposition; further inevitably results in 'organization redesign'. The functional units of marketing and sales now are attracted more attention. Last but not least, compared with OEM/ODM, an OBM company is now having much higher opportunity to get touch with end consumers. The service process and rules need to be emphasized so that a reliable and satisfied service can be offered. 'Establishing new operational strategy' consequently assists these companies to determine how a consistent service process should be offered.

#### **Relevance/Contribution**

The contributions are twofold. This research explored the stages/process and required capabilities of three companies transforming from OEM/ODM to OBM in the consumer goods industry. It firstly fills the gap in the literature in terms of industry and topic. Although numeric papers highlight the importance of offering service to customers when providing products, the development stages of how to do this and what capabilities required for this still remain unclear. Secondly, with the stages and capabilities identified by this study, it provides guidance to future companies that intend to offer more values to end consumers and move their position from the upstream to downstream supply chain.

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