

Chapter 13

Trends and Issues in Service Business Innovations in Japanese Manufacturing Industry

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ABSTRACT

Trends and issues in service business innovation in the Japanese manufacturing industry are discussed in this chapter. The manufacturing industry in Japan is rapidly changing to not only supply products but also provide solutions to customers. However, the business procedures and evaluations to manufacture products and supply services seem to have quite different aspects. That might raise issues for doing service business in manufacturing firms: service business models, quality and productivity of services, cost estimates and prices of services, establishment of management systems for service businesses, collaboration between second and third industrial sectors with service businesses, stable business management with products as flows, and services as stock businesses. These subjects and two case studies on advanced service businesses, such as a construction machinery company and an instrumentation company, are discussed.

INTRODUCTION

The manufacturing industry of Japan in the 20th century was the main player that contributed to GDP and continuously supplied high-quality products to the world with outstanding productivity.

Products with the prestigious trade mark “made in Japan” dominated the global market. Service functions in the manufacturing companies were, however, treated as subordinates to products despite their importance during this exceptional period. Now that the third industry accounts for 70% of the GDP and labor force in Japan, manufacturing industries are also changing so that they can not

DOI: 10.4018/978-1-4666-4663-6.ch013

only supply products but also provide solutions to customers up to the middle of the 21st century. Service businesses have increased in importance according to this change.

Business procedures and evaluations in manufacturing products and supplying services seem to have quite different characteristics. Five issues might be raised about manufacturing companies that conduct service businesses:

1. Service business models,
2. Quality and productivity of services,
3. Estimates and valuations of services,
4. Building management systems of service businesses, and
5. Development of programs for business planning and management of service businesses.

The Japan Management of Technology (MOT) Association established a research committee on service businesses in the manufacturing industry for discussing such issues in servitization in manufacturing industry. This chapter intends to report recent activities undertaken by this committee and the current status of service businesses in the Japanese manufacturing industry (Kameoka & Sumi, 2007; Sumi, 2010; Sumi, 2007).

SERVICE BUSINESS MODELS FOR MANUFACTURING INDUSTRY

Definitions of Business Model

The term “business model” has now become a popular expression. However, its concepts and scopes differ on a case by case basis. Therefore, a complete definition of it might be difficult to provide. This section reviews several definitions and Japanese actual cases that can be applied to service businesses.

Senmoto (2000) states based on Management of Business Administration (MBA) methodology that the business model provides the function

of money making. He says that companies are governed by people, goods, and money and he therefore considers the business model to be an equation that inputs these resources and that outputs profits. Teramoto and Harada (2006) define the business model as value creating equipment that equals supply content multiplied by supply contexts. Takahashi (2007) indicates that the business model is a money making process by managing corporations in markets. Matsushima (2004) states that the business model is a business design diagram and it is useful for four reasons:

1. Understanding the ownership of business,
2. Creating business and connecting to it,
3. Improving and innovating the business model, and
4. Bench marking the best practices.

Figure 1 outlines viewpoints of the business model and Figure 2 shows its positioning.

Based on knowledge science, Nonaka (2010) states that the business model plays the role of a converter that changes knowledge to the flow of profits and that promotes the construction of relations with companies and clients, which is shown in Figure 3.

As previously mentioned, there are many definitions of the business model in each field. In other words, the business model is a methodology for business processes and profit making.

Principles of Business Model Innovations

Johnson (2009) and Johnson et al. (2010) pointed out without exception that successful companies are managed based on effective business models. These business models are constructed from four key elements as shown in Figure 4.

1. Customer Value Proposition (CVP)
 - Target customer

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