

## 論 説

# Supply Chain Management Practices on Performance of Retail Enterprises

—Supplier and Customer Relationship Perspective of 100 Yen Shops in Japan—

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## Abstract

Substantial supply chain management (SCM) has become a potentially worthy method of securing competitive advantage and enhancing organizational performance since globalization has no longer intensified competition between organizations, but among supply chain. The main purpose of this study is to explore the key factors of supplier and customer relationship management of 100-Yen companies. This study also intends to examine the contribution of these factors on the performance of 100-Yen companies. An intensive qualitative approach is followed for this study where some identical relevant literatures are explored to determine conceptual framework. This research found that 100-Yen companies follow distinct form of franchising business where company takes majority risk and enjoy greater portion of profit and owner of the shop gain nominal portion of profit as a reward of bearing little risk. Besides, this study identified that data management system is the main variable to sustain supplier and customer relations for long term which means that information sharing and information quality play vital role for operational success as well as organizational achievement. Gradual expansion of this business over the world and increasing value of diversified product are the main reasons of organizational success of this business whereas cheapest source of procuring products and rational quality of products are the major causes of operational success of this business. Nevertheless, inability to adapt with highly sophisticated business intelligence system can lapse the organizational performance of 100-Yen companies in near future. Also, this business can be unattractive little by little to franchised shop owners because of losing their freedom and absence of participatory decision-making process. And, emerging alternative retail formats, online service of shopping malls and super shops, 24 hours services of some super shops, and offering cheapest products of shopping malls are making customers reluctant towards 100-Yen products gradually.

**Keywords:** Supply chain management, Operational performance, Organizational performance, 100 Yen shops, Competitive advantage.

**JEL Classification:** L25, L81, M11

## 1. Introduction

### 1.1. Background of the Study

Since the competition in 21<sup>st</sup> century has aggravated and markets have become inclusively competitive, so the challenges of companies are not confined within getting a product or service to the right place at the right time at the lowest cost. Rather, competition is associated with the effective and efficient integration among the operational upstream and downstream activities. Effective supply chain management (SCM) has become a potentially worthy method for securing competitive advantage and enhancing organizational performance, since globalization has no longer escalated competition between organizations, but among supply chain.

The concept of SCM has apprehended increasing attention from academicians, consultants, and business managers alike. Though the concept and practice of SCM have received increasing attention amongst business managers, consultants and academicians (Hamister, 2012), small retailers have received little attention from SCM scholars in spite of having their importance to the company. In today's global market, the implementation of SCM practices is not confined to manufacturing firms only (Li et al., 2006), it has spread its wings in the retail sector also (Randall et al., 2011).

In Japanese retailing, there seems to be a dynamic process wherein new formats emerge and others fade way. Compared to young market, in Japan, the senior market shows a relatively low usage frequency in the following four formats: drugstores, GMSs, 100-yen stores and convenience stores (Takei et al., 2006). However, in recent years, new retail formats such as drugstores, 100-yen shops and volume clothing retailers have grown rapidly and made the retail market more competitive. 100-yen shops, as a modern retail chain industry, are a well-flourished and prospective phenomenon in Japan. But, there has not been any significant study on retail supply chain practices in Japan, especially on 100-yen retail industry, and till recent times supply chain practices in Japan exhibit inadequate visibility. So, the main purpose of this study is to examine what factors are related with the supplier and customer relationship management of 100-Yen companies and how these are contributing on the performance of 100-Yen companies.

### 1.2. History of the 100-Yen Companies

A type of business like the 100-yen stores of today can be traced back to the 1930s, which Takashimaya operated "10 Sen stores" (100 Sen being equivalent to 1 yen) throughout Japan. After that, the concept of Yen shops evolved from street stalls popular in the

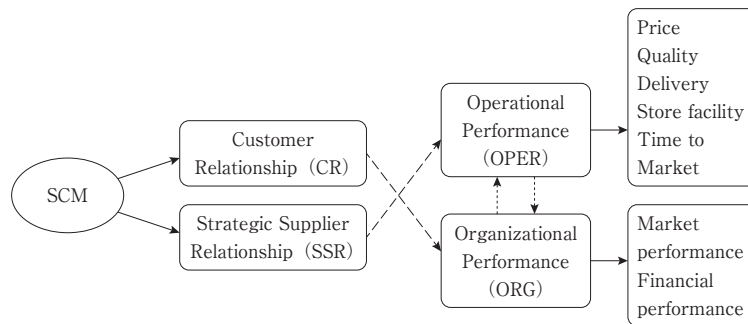
1970s. Street shops sold stationery, keyholders and miscellaneous bric-a-brac, each item, whatever it was, priced at 100 yen.

Rising supermarkets in 1980s led to develop the concept of “100-yen sales.” Slowly the idea took hold. The first 100-Yen shop opened in Aichi prefecture in 1985. Daiso is the pioneer in this field and it opened first shop in 1991 and now runs roughly 3,700 of them. Ranking second is Seria with 1,200 outlets; third, CanDo with 900.

## 2. Literature Review and Conceptual Framework

Figure-1 shows the SCM framework developed in this study. The conceptual framework propounds that two constructs of SCM practices implemented in 100-Yen shops of Japan will have an impact on organizational performance both directly and indirectly through operational performance.

Figure-1: Conceptual framework of the Study



### 2.1. SCM Practices:

SCM practices are conceptualized as a set of activities undertaken in an organization to promote effective management of its supply chain. SCM practices are viewed from a variety of different perspectives and multi-dimensional concept (Sundram et al., 2011). Li et. al. (2005) empirically conceptualized and validated six dimensions of SCM practices which includes strategic supplier partnership, customer relationship, information sharing, information quality, internal lean practices, and postponement and a test was conducted on its relationship with the firms' competitive advantage and performance (Li et al., 2006).

### 2.2. Strategic Supplier Relationship (SSR):

The performance of a retail enterprise is not entirely depended on its own performance, rather performance of all the members of the supply chain contribute to the overall performance of the retailer (Gandhi et al., 2017). Many previous studies included SSR as a key

variable of SCM practices and they established effective relationship between SSR and SCM practices in the organization.

### **2.3. Customer Relationship (CR):**

Claycomb et al., (1999) defined customer relationship as the entire gamut of practices that an organization employs to improve customer satisfaction, handle customer complaints and build long term relationships with customers. Relationship management with customers is becoming fundamental for an organization's survival with the transition into a period of mass customization and personalized service (Wines, 1996).

### **2.4. Operational Performance (OPER):**

OPER refers to the ability of a company in reducing management costs, order-time, load time, improving the effectiveness of using raw material and distribution capacity (Heizer et al., 2008). Truong et al., (2017) pointed out that operating cost, lead-time, are the key components of operational efficiency of firms. (Roth and Miller, 1990) identified price/cost, quality delivery and flexibility as important competitive capabilities.

### **2.5. Organizational Performance (ORG):**

Yamin (1999) defined organizational performance as the measurement of market-oriented goals and financial goals. The short-term objectives of SCM are essentially to enhance productivity and reduce inventory and lead time, while long-term objectives are to increase market share and integration of supply chain for all members of the supply chain (Li et al., 2006).

However, despite the significance and theoretical development of SCM, there is inadequate research on how Japanese retail shops, especially 100-yen shops assess their suppliers and customers, define and implement SCM practices and how these practices impact on the performances of 100-yen companies. This study investigates these issues to evaluate their applicability for Japanese retail chain enterprises based on empirically data collected from Japan-based 100-yen companies.

## **3. Mapping the Business Process of 100-Yen Companies**

Business process mapping deals with the steps that a business takes to complete a process, such as hiring an employee or ordering and shipping a product. Mapping the business process shows the "who," "what," "when," "where" and "how" for these steps, and help to analyze the "why."

**Table-1:** Basic Business Model of 100-Yen Companies

Variables	Shop Owner	Yen Company
Ownership of Shop	✓	×
Cash Maintenance	✓	×
Guarantee Fee under Minimum sales	✓	×
Shop Maintenance (Electricity, Cleanliness)	✓	×
Product Variety	×	✓
Display of Products	×	✓
Employment of Staff	×	✓
Strategic Planning	×	✓

### 3.1. Business Model of 100-Yen Companies

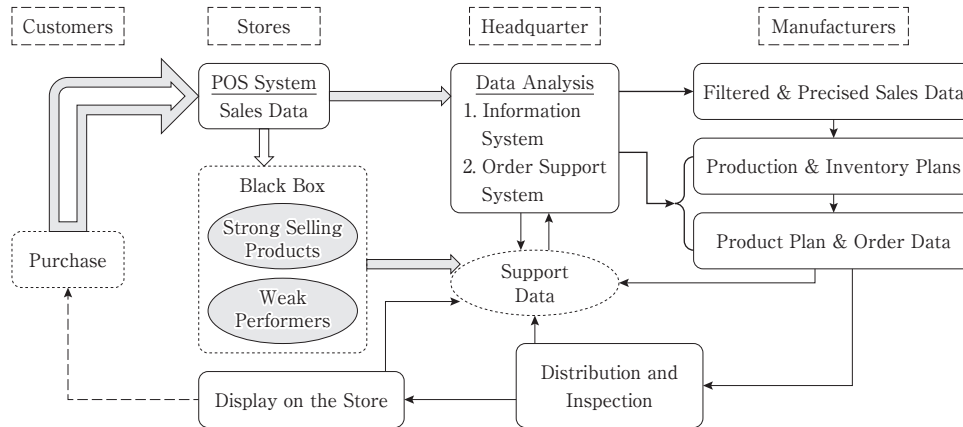
Daiso, Seria, CanDo, Watts and some other companies operates 100-yen stores (stores that sell products for a fixed price of JPY 100 plus tax) throughout Japan. Some stores are directly managed by companies, but usually companies render bulk of products to franchised stores and sell products to large customers.

It is shown from the aforementioned table that in this retailing business process, major responsibilities, like-product planning and decision, shorting and shelving product in the store, strategic planning and employment planning for the company as well as shop, are maintained and managed by the corporate body of 100-Yen companies. On the other hand, shop owners are only responsible for daily cash maintenance, renting the space for the shop, guarantee fee for minimum sales and shop maintenance.

### 3.2. Data Management System of 100-Yen Companies

Retail companies accumulate necessary data by using both general or specialized system (For example, POS or point card system). But 100-Yen companies simply use their distinctive point of sale system (POS) to record and analyze accumulated data which has inter-connectivity with individual shops, company headquarter and suppliers. It is shown in the Figure-2 that each 100-Yen shop record every transaction by using POS system. This sales data helps individual shops to identify most selling products and weak performing products which is called "Black Box System". These data are automatically synchronized with the corporate "Information System (IS)" in headquarter. IS finally analyze accumulated data and produce filtered data. Consequently, POS shares all precise data with their designated suppliers which work as support data for both corporate management and manufacturers to formulate production and inventory plan. In addition, management of company and manufacturers work together to design new product and reshaping the prevailed products by utilizing POS shared data. Then, manufacturers ultimately determine flawless demand of necessary goods which is strictly followed by just-in-time method. Finally, manu-

Figure-2: Business flow chart of 100-Yen Companies (Adopted from Shared Research-2017, Seria)



facturers distribute the necessary products and keep inspection of their rendered stuffs. And, company direct staffs of individual shops to display the products in pre-defined shelves as a back and forth process of the company. So, it is authentically identified that integrated information technology is the prime source of SCM practices of 100-Yen retail business. Essentially, information sharing is the most significant component to sustain relationship with customers as well as suppliers. Therefore, it can be concluded that distinct featured POS of every 100-Yen company not only assists to keep the sales record but also it works as edge technology to maintain and manage customer as well as supplier relationship automatically.

### 3.3. 100-Yen Retail Business: is it really a franchising business

Franchising is an intensive agreement between a *franchisee* and a party (franchisor) who owns the brand and allow franchisee to have access to their business proprietary knowledge, process, trademarks, and to sell products or provide services under their name within a territory or a region. Under this business model, a franchisee gets a license to have access to franchisor's brand name, usage of franchisor's trademarks, operational manual, software and other operational requirements, all other proprietary knowledge and materials, and after all franchisee gets marketing and management support from franchisor. Beshel (2000) cited that there are mainly two types of franchising business. Firstly, product distribution franchise-gives rights to dealers to distribute goods of the brand (Coca-Cola) which model is also called manufacturer-retailer model; secondly, Business-format franchise-allows franchisees not only sell the franchisor's products under the name of the franchisor's brand, but also follow the standardized format and procedures of retail sale which include visual merchandising, appointment of staff, implementation of marketing activities, etc (McDonalds, Burger King).

So, it can be said that 100-Yen business follow business-format franchise which has little

**Figure-3:** Franchising Model of 100-Yen Company

distinction from the acute formation of franchising business. All products of 100-Yen companies are outsourced from the cheapest third-party, like-highly prevalent convenient store 7/Eleven. Usually, retail companies manufacture products in their own production plant or outsource products from third party labeling the original retail company name which is literally called original equipment manufacturing (OEM) strategy. Exclusively most 100-Yen companies cannot adopt with OEM strategy because of insufficient financial and technological capabilities. But, Daiso and Seria are still striving to cope with OEM strategy to enhance the competitive advantage of their business value chain. So, it is shown that 100-Yen companies in Japan manage and maintain relationship with manufacturers and franchised shops by utilizing sophisticated technology.

#### 4. Methodology

Authors are motivated to explore factors related to the SCM practices of 100-Yen companies and their contribution on organizational success because of shortfall of literatures on prevailed business model of retail sector in Japan and their impact on supply chain management, specially literatures are rarely found on 100-Yen retail business though this business model create consumer value successfully over the world. This study is a qualitative research where relevant literatures are explored to determine conceptual framework. In this conceptual paper, extant literature is reviewed and discussed pertaining to the retail sectors. A systematic review of 137 articles identified in relevant journals across the field of supply, customer relationship, operational performance and organizational performance. A structured literature review differs from a more narrative review because of its methodical approach, implying a detailed description of the steps taken to select, scan and analyze the literature, aiming at reducing biases and increasing transparency (Carter and Easton, 2011). This literature review provides a snapshot of the prevailed theoretical practices of SCM in retail sector of Japan. It does not intend to cover the entirety of the literature but rather offer an informative and focused evaluation of purposefully selected literature in retail sector, which will serve to answer previously outlined research questions. The systematic reviewed literature pretends to analyze the existing variables that affects supply chain practices in retail sector of Japan and find out the gap of literatures which can exhibit proper findings of preset research questions. Author had telephone conversation with the employees of Seria for understanding their published business model.

## 5. Findings

It is shown from this study that 100-yen companies basically operate business through buying products from manufacturers and selling them at a flat price of JPY 100 (plus tax). 100-Yen companies follow distinct franchising business model where company takes major portion of business risk and enjoy greater portion of profit and owner of the shop gain nominal portion of profit as a reward of bearing little risk. However, this paper mainly studies the implementation of SCM practices of 100-yen retail companies in Japan. The research found that SCM practices comprise of five dimensions: strategic supplier relationship, customer relationship, level of information sharing, quality of information sharing, Just-in-time capabilities, postponement. This study identified that data management system is the main variable to sustain supplier and customer relations for long term which means that information sharing and information quality play vital role for operational success as well as organizational achievement. For monitoring activities and assessing performance of a firm's business processes, the firm needs access to information and an effective data management mechanism. The information systems collect and process enormous data in various forms in the firms and understanding and assessing the information about the processes of an organization becomes a challenging proposition (Banerjee and Mishra, 2017). Nonetheless, inability to adapt with highly sophisticated business intelligence system can lapse the organizational performance of 100-Yen companies in near future.

In addition, the organizational performance of the 100-yen companies is characterized by two dimensions: market performance and financial performance. Rapid expansion of 100-Yen shops in previous one decade and gradually increase of net profit are the ultimate reasons for organizational success of 100-Yen business in Japan. On the other hand, operational performance of 100-yen companies are characterized by five dimensions: price/cost, quality, delivery dependability, product innovation, time to market. In this regard, low cost of the product, procuring products from the cheapest sources, availability of shops, extensive product variety and reasonable product quality are the key sources of operational success of 100-Yen retail business in Japan. In this regard, Kotler (1973-1974) quoted that store attributes can be defined as retail environments which stimulate a consumer's desire to purchase, and these include product, service, and store qualities. Nevertheless, several studies have tried to recognize several factors as a major skills and resources required to successful application of IT in supply chain performance context. While information sharing culture and inter-organization collaboration, "that refers to the extent to which firms intend to exchange crucial and proprietary information with their supply chain partners" (Ye and Wang, 2013), are cited as critical factors that allow firms to derive advantages from IT ap-



plication and integration with top management support and IT Knowledge has also a critical role to connect with customers and suppliers.

However, the risk with fixed pricing is that it doesn't allow customers for adjustments if S/he get into product or service delivery and realize her/his cost basis is higher than expected. Fixed pricing also doesn't allow for adjustments over time to sell off extra inventory or available seats for entertainment and other types of events. This research marked out that these retail shops are less attractive to epicurean consumers because of cheaper and low-quality products. Besides, this study uncovered that rapid adaptability of supermarkets towards advanced IT system, for instance, self check out system in convenient stores and shopping malls, movement of supermarkets to online deliveries, ensures door stop services to consumers which ultimately saves consumers' time and cost. This uplifted service of supermarkets and shopping malls also has intensified the inter business competition among retailers in Japan.

Finally, this research seems that shop owners only work as the cash manager of the company which appears like a part time job of shop owners or subsidiary business of their main business. So, detraction of the major authority of shop owners and refraining them from the strategic decision can make individuals to be the franchisee of 100-Yen retail business in near future. Besides, this retail format doesn't issue point cards and so they can't track customer attributes which is another threat for this business to track down consumer personality and their future expectations. And, the reasons behind unwillingness of companies to promote point card are still untapped.

## 6. Limitations and Future Research

The first limitation of this research is limited number of observations and focused on one type of business industry in Japan. In addition, the entire domain of 100-yen companies' SCM cannot be covered in just one study since the concept of SCM is complex and involves a network of companies in the effort of producing and delivering a final product. Besides, this study is completely literature based and further research can be conducted by interviewing SCM executives of 100-Yen companies by following company intercept survey. In addition, further research can be extended to examine and compare the competitiveness of business value chain of 100-Yen retail companies in Japan by adopting "smile curve".

So, it can be concluded that POS system is the key tool to establish relationship between SSR, CR and ORG. And, sourcing products from low cost country and minimum liability of shop owners are prime reasons for organizational success. Further research can be expanded to explore the prospect of 100-Yen business value chain through analyzing customer attributes and their knowledge-worthy opinion.

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