



ELSEVIER

Contents lists available at [SciVerse ScienceDirect](#)

International Business Review

journal homepage: www.elsevier.com/locate/ibusrev



How do small firms possibly survive? A comparison study of marketing skills and logistics infrastructure of small and large wholesalers[☆]

Mohammed Y.A. Rawwas^{*}, Karthik N.S. Iyer

University of Northern Iowa, Cedar Falls, IA 50613, United States

ARTICLE INFO

Article history:

Received 3 August 2011
Received in revised form 10 August 2012
Accepted 16 October 2012
Available online xxx

Keywords:

Japan
Logistics
Marketing skills
Small and large wholesalers

ABSTRACT

Most wholesalers are small family-owned firms that frequently lack marketing skills and an infrastructure capable of setting into practice state-of-the-art marketing distribution systems. They are much more consumed with daily activities and credit and collection functions than they are with developing marketing skills and logistics networks. The purpose of this exploratory study is to identify the elements of marketing skills and logistics that are associated with the performance of small and large wholesalers, and to compare and contrast these variables. Data were collected from 4500 small and large wholesalers in Hyogo and Osaka prefectures in Japan. Multiple regression analysis of this study found that the factors of supplier's financial assistance and buyer's services to wholesalers explained the performance of small wholesalers, and the factors of supplier's service to wholesalers and buyer's service to wholesalers explained the performance of large wholesalers. Multivariate analysis of variance and multiple discriminant analysis revealed that large and small wholesalers differed with respect to supplier's services to wholesalers, the supplier's financial assistance, and the wholesaler's intra logistics activities. Implications are discussed.

© 2012 Elsevier Ltd. All rights reserved.

1. Introduction

Most wholesalers are small family-owned firms that frequently lack marketing skills and an infrastructure capable of setting into practice state-of-the-art marketing distribution systems. They are not forceful marketers because of their size, their capital, their know-how, and their traditional outlook. In fact, they are much more consumed with daily activities and credit and collection functions than they are with developing marketing skills. They have a myopic vision as they do not plan and forecast sales, and do not analyze opportunities, threats, and trends (Rawwas, Konishi, Kamise, & Al-Khatib, 2008). Marketing for most small wholesalers is equivalent to selling; the emphasis is on transformation of inventory into cash, on generation of sales volume, on short-run answers, on the complications of individual customers, and on the significance of daily routine. A large body of literature suggests that the lack of marketing skills for many small wholesalers has hindered their growth and placed them at both organizational and economic disadvantage with large ones whose economies of scale are massive (Heady, Maples, & Greco, 2005).

The second area of growing concern for small wholesalers is their economic disadvantage in operating efficient logistics systems. Large wholesalers, using state-of-the-art logistics facilities, integrating fleet and routing systems and applying

[☆] The authors would like to thank Professor Kazuhiko Konishi of Otomon Gakuin University, Japan for data collection.

^{*} Corresponding author.

E-mail address: rawwas@uni.edu (Mohammed Y.A. Rawwas).

contemporary supply chain management practices, can decrease their ordering and carrying costs to about 15% of total sales (Operations Management Roundtable, 2001). Considering only the cost savings achieved from improving their distribution systems, including scheduling and routing costs, these companies average savings from 20 to 30% of the total cost of transportation of goods (Operations Management Roundtable, 2001). Owners of most small businesses realize that as the big companies get bigger they are falling further and further behind as the effects of “economies of scale” set in (Heady et al., 2005). So, if small wholesalers lack marketing skills and logistics infrastructure, how can they possibly survive?

There are several theories that may answer this question. The theory of duality argues that small firms provide different economic function than their larger counterparts and therefore do not directly compete with them (Audretsch, 1995; Audretsch, Prince, & Thurik, 1999). The theory of strategic niches adds that by strategically occupying a market niche, small firms can avoid directly competing with their larger counterparts (Caves and Porter, 1977; Porter, 1979). The concept of dynamic complementary further explains that small firms potentially have greater flexibility and closeness to the customer, though lacking economies of scale, scope, and learning (Nooteboom, 1994). The interpretation is that small firms may have the edge on customizing their services and goods by concentrating on low-volume niche markets and may seek out less important markets to avoid confrontation with their larger counterparts.

Porter (1979) and Caves and Porter (1977) suggest that the activities of large and small firms may differ within the same industry and are not homogeneous. According to the theory of strategic niches, small firms may exhibit good levels of profitability by occupying less important product niches that are inaccessible or not lucrative to their larger counterparts. Small firms may produce goods or services that are distinct from those manufactured by large firms. Porter (1979) and Acs and Audretsch (1990) suggest that such differences permit smaller firms to seek out and maintain distinct product niches which may enable them to experience reasonable rates of profitability for prolonged periods of time. The purpose of this exploratory study, therefore, is to achieve twofold objectives: first, to identify some of the marketing skills and logistics factors that are associated with the enhancement of the performance of small and large wholesalers. Second, to compare and contrast identified factors of both small and large wholesalers.

The rest of the paper is organized in this fashion. In the next section, the conceptual background and the theoretical basis are described. Drawing upon prior research in strategy, supply chain and marketing, relationships are hypothesized. The next section describes the methodology and empirical analysis. The final section concludes with a discussion of the implications key results from the analysis, limitations and directions for further research.

2. Literature review and hypotheses development

When channel members work efficiently with each other, the planning process and delivery of goods and services to end customers is less costly, more accurate, and punctual (Wisner et al., 2005). Supply chain management principles contend that any sub-optimization would only transfer costs and additional waiting time along the supply chain, ultimately leading to lower performance of all channel members. Factors of effective performance for small and large wholesalers can be divided into marketing skills: the development of relationships and services, and logistics: the physical movement of goods (Laurent, 1996, p. 145). The first type of factors is considered as marketing skills because wholesalers attempt to build successful and trusting relationships with suppliers and buyers. The second type of factors focuses on the introduction of new systems of logistics to meet the changing distribution needs of channel members (Sheth & Parvatiyar, 1992, p. 75), and help channel members respond with agility to unexpected logistical demands (Maltz & Maltz, 1998).

2.1. Marketing skills: development of relationships and services

Feasibility of wholesalers is enhanced when they improve their marketing skills' capabilities because this practice helps in laying the foundation of the vision of the firm. It is shaped by several characteristics of marketing skills including communication, loyalty, trust (Cullen, Johnson, & Sakano, 2000), commitment to channel members (Cutts, 1992), assistance programs (Rawwas, Vitell, & Barnes, 1997), and power brands and assortments (Celly & Frazier, 1996).

2.2. Communication

The ability to pass information quickly throughout the marketing channel provide the supplier with a tool to constantly analyze the market and manage forecasts in case of changes in demand; thus, avoiding costly over production or the introduction of unneeded products (Wisner, Leong, & Tan, 2005). Small and large wholesalers may go through three stages of communication to pass such information and achieve successful outcomes. Small firms, in the first stage, make initial personal contact and exchange information to gain better understanding of the know-how of the large firms. Later, small firms exchange more in-depth information and utilize acquired technology to develop new products. Finally, small and large firms collaborate to produce jointly goods and services (Kienzle & Shadur, 1997).

Consequently, large and small firms collaborate to work on a single forecast, incorporating knowledge of customer profiles and needs, base sales, product introductions, product malfunctions and service, and customer complaints. It is possible to match customer needs with manufacturer production plans and with new product development, thus ensuring well-organized replenishment. Research has found that efficient and prompt communications influence and boost the level of performance of channel members (Mohr & Nevin, 1990).

2.3. Loyalty

Loyalty is defined as the investments and behavioral activities that retain a channel member attached to another (Fein & Anderson, 1997). In buyer–seller relations, loyalty combines both repeat interactions and attachment to the trading channel member (Jarvis & Wilcox, 1977). Research results report that in order to preserve the relationship and maintain high performance, a channel member may be willing to relinquish its own interest in favor of another member (Gundlach & Murphy, 1993; Ring & Van de Ven, 1992). In fact, this channel member would embrace the other member through unpredictable times, allowing the relationship to continuously grow and prosper (Fletcher, 1993). Research findings also reveal that existing channel members would not be substituted in relationships where loyalty is thriving, even when new comers enter the market offering better deals and bargains (Schurr & Ozanne, 1985). In another study, suppliers and customers are found to have relationships with one another lasting on average fifteen years (Johanson, 1989), or in some instances much more as in the relationship of the British retailer, Marks & Spencer, and its suppliers in which it has survived for more than forty years.

2.4. Trust

Trust is defined as a channel member's willingness to depend on another member (Moorman, Deshpande, & Zaltman, 1993), reducing its vulnerability and any suspicious feelings (Morgan & Hunt, 1994). A trusted channel member is perceived as possessing integrity and credibility (Doney & Cannon, 1997). Trust develops when members of a marketing channel embrace one another's vision, purpose, and standards, share a long-term relationship (Doney & Cannon, 1997), and uphold repeated, equitable, and fair transactions (Ring & Van de Ven, 1992). In order to increase trust in the marketing channel and to become aggressive competitors against large retailers, small Japanese retailers have formed cooperatives (Lee & Mulford, 1990). These cooperatives have established new trust among their members that have improved their overall performance (Gilliland & Bello, 2002), have lowered their transaction costs and have made linkages to other channel members last longer (Kienzle and Shadur, 1997).

2.5. Commitment to members

A commitment to channel members is reflected when a firm shows care for the well-being and progress of other members, establishes fairness and compassion in its treatment, and invests in the advancement of other members (Eisenberger, Fasolo, & Davis-LaMastro, 1990; Moorman, Blakely, & Niehoff, 1998; Organ, 1990; Shore & Wayne, 1993). Research has found that a nurturing climate and the commitment to members have been found to aid firms in harvesting loyalty, devotion, determination, and initiative from other members; consequently, helping in the profitable execution of a firm's strategies (Eisenberger et al., 1990; Organ & Konovsky, 1989). In Asia, studies have found that the combination of Confucian ethics and paternalism create a strong climate of commitment of firms toward other channel members fostering members dedication and high performance (Lee & Lee, 1994; Lee & Miller, 1999). In fact, a firm's commitment to other members will be rewarded by a reciprocal devotion from other members (Lee & Lee, 1994, 1995; Shin, 1993), resulting in members' loyalty and better citizenship behavior, more dedication to the firm, and energies well beyond the minimum job requirements (Han, 1991; Ko, 1992).

2.6. Assistance programs

Assistance programs such as wholesaler investments in buyer training, store layout, capital and mission support, business organization, association founding, price setting, and assortment planning are proved to enhance wholesaler–buyer relationships. Extant research studies have cited assistance programs as an important aspect of marketing skills in several studies (Leong, Snyder, & Ward, 1990; Minarro-Viseras, Baines, & Sweeney, 2005; Swamidass, Baines, & Darlow, 2001). These programs bring channel members close to each other and increase their productivity by responding to market requirements (Rawwas et al., 1997). Members accomplish highest performance when a well-trained buyer sales team has a better understanding of the product, enthusiastically work with the supplier's associates, and does whatever it takes to serve the customer (Trombly, 2001). Research findings have also reported that embracing and implementing assistance programs are part of the marketing skills process (Acur, Gertsen, Sun, & Frick, 2003; Narasimhan & Jayaram, 1998; Rytter, Boer, & Koch, 2007; Swink & Way, 1995).

2.7. Power brands and assortments

Power brands are popular names of products that are associated with successful firms. Research has found that suppliers who possess power brands and wide assortments are well prepared to help and boost buyers' performance (Celly & Frazier, 1996). Research has also reported that the distribution of exclusive and power brands, along with strong demand and limited product substitutes, largely explains the success of firms such as Sysco, a U.S. national wholesaler with \$20 billion in revenues. Sysco's marketing strategy of building a huge power brands and assortments has proved to increase Sysco's gross margin and productivity as well as its suppliers' and buyers' overall performance (Maltz & Maltz, 1998; Rovit, Sweder, & Buchanan, 2002). Based on above discussion and research findings, we propose:

Hypothesis 1. Performance of small and large wholesalers will be positively correlated with marketing skills variables including communication, loyalty, trust, commitment to channel members, assistance programs, and power brands and assortments.

Hypothesis 2. The variables of marketing skills set will have more positive impact on the performance of large wholesalers than will have on the performance of small ones.

Hypothesis 3. The performance of large firms will differ from the performance of small ones with respect to the variables of marketing skills set.

2.8. Logistics: physical movement of goods

Logistical services are one of the most important tasks that make or break the performance of channel members (Stern, El-Ansary, & Coughlan, 1996). The best wholesaler performers provide effective logistical services and remain flexible to changing circumstances (Lusch & Brown, 1996). They stay close to their buyers to understand their logistical needs, use this knowledge to improve their own logistical system and react to changing market conditions (La Londe, Cooper, & Noordweier, 1988). An effective wholesaler's logistics services include: developing logistics communications and facilities (Frazier, 1999; Wisner et al., 2005), adopting Just-in-Time operations (Braganza, 2002; Claycomb, Droge, & Germain, 1999; Claycomb, Germain, & Droge, 1999; Dong, Carter, & Dresner, 2001; White & Pearson, 2001), providing supplementary logistics activities (Maltz & Maltz, 1998; Noordewier, John, & Nevin, 1990), managing returned products (Stank, Daugherty, & Ellinger, 1996), stocking sufficient levels of inventory, absorbing cost increases, and hiring well-trained logistics employees (Celly & Frazier, 1996).

2.9. Logistics communication and facilities

A state-of-the-art logistics facility requires high speed communication channels, effective modes of transportation, and distribution centers. Advances in communications in the past decade have dramatically improved the effectiveness and speed of logistical parties. The internet, electronic data interchange (EDI), and satellite communication systems have effectively linked buyers and sellers, distribution centers and their modes of transportation. This modern linkage has significantly influenced logistical structure and the nature of channel activities (Frazier, 1999). Research has found that logistics services can be judged according to their speed, creativity, cooperation, and effectiveness of communication networks (Frazier, Jaworski, Kohli, & Weitz, 1994). When channel members provide a reliable electronic communications, logistical operations will speed up the flow of products and improve relationships among channel members. These relationships may last for a prolonged time and cover several products and product lines (Kinsey, 2000).

Research has reported that large companies with effective modes of transportation and distribution centers can gain a cost advantage equal to 10% or more of the final selling price simply because they can transport goods to market more efficiently. This number has a multiplier effect in the income statements of these companies and may total much higher. Most small companies understand this cost disadvantage and are constantly seeking ways to reduce their transportation costs (Heady et al., 2005). Their main concern is to optimize their fixed and variable costs but due to their size, lack of effective modes of transportation and distribution centers, they are incapable of adequately responding to demand fluctuations and unpredictable market conditions (Heady et al., 2005).

2.10. Just-in-Time

Just-in-Time (JIT) concept demands for all supplies to be active; there is never a pause to collect stocking expenses. It is a hand-to-mouth process in which the ratio of manufacturing over delivery is equal to one. The purpose of this process is to enhance, continuously improve, reduce waste, and synchronize material flows among channel members (Wisner et al., 2005). JIT supports functions of supply chain management such as moving products through the production system quickly, scheduling production according to end-customer demand forecasts, and optimizing inventory levels across the supply chain. Wholesalers practicing JIT improve the service and delivery attributes of their suppliers and customers and eventually extend their services to their suppliers' suppliers and to their customers' customers.

Researchers have reported a positive link between JIT and performance of channel members. They have also revealed that the integration of JIT at various organizational and channel levels would achieve above average financial and other performance results (Braganza, 2002), as well as reduce logistics costs for suppliers and buyers (Dong et al., 2001). JIT systems have been also found to improve the performance of channel members by providing the mechanisms for integration of the various activities across the supply chain (White & Pearson, 2001). In another study, wholesalers' use of JIT with retailers is found to be positively associated with wholesalers' performance in terms of less inventory and higher profit (Claycomb, Droge, et al., 1999; Claycomb, Germain, et al., 1999). Research has also detected differences between JIT channels and non-JIT channels with respect to their logistical performance (Das & Handfield, 1997).

2.11. Supplementary logistics

Supplementary logistics services are numerous that include inventory availability, post-purchase product support, supplier flexibility, supplier assistance, information exchange, emergency delivery among others. Past research has found that higher levels of supplementary logistics being offered in a marketing channel have a tendency to increase perceived channel members' satisfaction and profit margins (Maltz & Maltz, 1998). Besides, the use of supplementary logistics activities has positive effect on buyer–seller relationship and performance (Noordewier et al., 1990). Research has also revealed that the most important logistics factor that improved the competitiveness of small wholesalers is supplementary logistics (Small and Medium Enterprise Agency, 1997).

2.12. Product returns and availability

Product returns play a major role in determining channel members' satisfaction and is positively associated with their performance (Stank et al., 1996). Product availability is another significant factor that determines the performance of channel members. The principle of Massed Reserves states that the function of wholesalers in the marketing channel is valued when they stock adequate inventory to meet sporadic customer demand (Hall, 1949). Research has found a positive association between the performance of wholesalers and product availability (La Londe et al., 1988). In another study, product return and availability are reported to improve channel members' profit margin and promote closer relationships among them (Rawwas et al., 1997).

2.13. Increased costs absorption

Several channel members absorb increased costs to maintain adequate performance of other members. Apple manufacturer, for example, has absorbed all the extra costs arising from Japan-based component suppliers affected by the recent tsunami, in exchange for effortless flow of products. This has resulted in negligible negative affects to Apple's suppliers' profitability and, consequently, a good performance of the overall marketing channel (Ong, 2011). In a similar practice, U.S. retailers have absorbed most of the food and beverages additional costs to keep prices low and maintain adequate profit margins of other channel members. The performance of the marketing channel is expected to remain strong as households with budgets being pressed by high unemployment, flat incomes and high inflation will experience little negative or no effect on their buying power (Hobart, 2011). In support of Apple's and U.S. retailers' practices, research has found that logistics firms have been able to increase their efficiency by absorbing increased costs (Davies, 2003). Research has also found that airlines have been able to improve their performance by absorbing jet fuel surcharges (Setaishi, 2001).

2.14. Logistics employees

Well-trained logistics employees can save channel members money and increase their profitability and performance. Research has found that well-trained and energetic logistics employees are capable of influencing channel members' performance. They have good knowledge of industry buying practices, customer requirements, are well prepared to help channel members improve their profit margins, and enhance logistics operation efficiency and marketing channel competency (Celly & Frazier, 1996). According to above concepts and research findings, we propose:

Hypothesis 4. Performance of small and large wholesalers will be positively correlated with the set of logistics variables including logistics communication and facilities, Just-in-Time, supplementary logistics, product returns and availability, increased costs absorption and logistics employees.

Hypothesis 5. The set of logistics variables will have more positive impact on large wholesalers than will have on small ones.

Hypothesis 6. Large firms will differ from small ones with respect to the set of logistics variables.

3. Methods

3.1. Study setting

Japanese wholesalers in Osaka and Kobe were sought to respond to our survey. The Osaka and Hyogo prefectures are located on Honshu Island and are considered to be the hub of commerce and the most thriving trade regions in Japan following the Tokyo prefecture. Their capitals are respectively Osaka City and Kobe City with a combined population of about 4.2 million. Data collection was completely funded by the Japanese government and carried out by a Japanese project manager of a university in Kobe.

3.2. Data

Collection of data took place in two stages. The first one was performed to pretest the instrument. One-hundred twenty-five questionnaires were hand-delivered to managers of various wholesalers in Hyogo and Osaka prefectures in Japan. After a

Table 1
Industrial classification by prefecture.

	Prefecture			Total
	Osaka	Hyogo	No answer	
Wholesale trade, general merchandise	33 10.2%	20 9.0%	2 6.3%	55 9.5%
Textile products	37 11.5%	18 8.0%	1 3.1%	56 9.8%
Agricultural, animal and poultry farm and aquatic products	8 2.5%	19 8.5%	2 6.3%	29 5.0%
Food and beverages	24 7.5%	26 11.7%		50 8.7%
Building materials	31 9.6%	16 7.2%	4 12.5%	51 8.8%
Chemicals, minerals, and metals	37 11.5%	19 8.5%	1 3.1%	57 9.9%
General machinery and equipment	32 9.9%	20 9.0%	5 15.7%	57 9.9%
Electrical machinery, equipment, and supplies	21 6.5%	9 4.0%	1 3.1%	31 5.4%
Furniture, fixtures, and house furnishings	3 0.9%	4 1.8%	3 9.4%	10 1.7%
Drugs and toiletries	5 1.6%	7 3.1%	2 6.3%	14 2.4%
Other products, not elsewhere classified	73 22.7%	49 22.0%	9 28.1%	131 22.7%
No answer	18 5.6%	16 7.2%	2 6.3%	36 6.2%
Total	322 100.0%	223 100.0%	32 100.0%	577 100.0%

week, project managers were able to collect one hundred four completed questionnaires. Data were analyzed and reliabilities of coefficient alphas of .70 or greater were attained. In evaluating these values, Peterson (1994) examined 832 studies and found that 75% of the spotted alphas were .70 or above and only 14% of them achieved .90 or above. He warned that very high (.90 or above) coefficient alphas could indicate a high level of item redundancy, not item reliability. According to Peterson's (1994) findings, we conclude that our coefficient alphas were adequate and in line with most other studies.

The second stage entailed mailing the questionnaire to the headquarters of three thousand wholesalers in Hyogo and Osaka prefectures. Osaka's sample consisted of two thousand and Hyogo's sample consisted of one thousand ($N = 3000$). A total of 577 instruments were returned for a response rate of 19.2%. Of the 577 responses, 545 were considered viable for data analysis as thirty-two were deemed unusable ($n = 545$). Subjects were asked to indicate their approvals of each service on a standard five-point Likert scale, with "1" indicating strongly disagree and "5" indicating strongly agree.

The wholesalers represented a mixture of general merchandisers and specialty wholesalers dealing with textile, apparel, agricultural, animal, poultry and aquatic products, food and beverages, building materials, chemicals, minerals and metals, machinery, motor vehicles, and electrical equipment, furniture, drug and toiletries, and others (see Table 1). Fifty six percent of the Osaka prefecture sample consisted of middle-size firms that employed on average 65 employees ($n_1 = 305$), 32% were small firms that employed less than 30 employees ($n_2 = 174$), and the remaining 12% were large firms that employed more than 100 employees ($n_3 = 66$) (see Table 2).

3.3. Marketing skills: independent variables

Marketing skills variables were measured by using twenty two services that were exchanged among suppliers, wholesalers, and retailers and were identified by previous research (Rawwas et al., 2008). These variables included efficient communication, loyalty, trust, commitment to channel members, assistance programs, and power brands and assortments. Factor or data reduction analysis reduced the twenty two variables into six factors. These factors had coefficient alphas of

Table 2
Characteristics of small, medium and large wholesalers.

Wholesalers ($N = 545$)	Percentage	Sample size	Number of employees	Sales
Small	32%	174	Each has less than 30	Less than 20 million Yen
Medium	56%	305	Each has on average 65	Above 20 million Yen but less than 100 million Yen
Large	12%	66	Each has more than 100	More than 100 million Yen

0.78 or greater and were deemed reliable according to Peterson (1994). They included several services; the supplier's service to wholesalers, the supplier's offerings to wholesalers, the supplier's financial assistance, buyer's service to wholesalers, wholesaler's service to buyers, and buyer's resourcefulness (see Table 3).

3.4. Logistics: independent variables

Logistics variables were measured by utilizing nine logistical dimensions that were frequently used in marketing channels and identified by previous research (Rawwas et al., 2008). These variables included logistics communication and facilities, Just-in-Time, supplementary logistics, products return and availability, increased costs absorption and logistics employees. Factor or data reduction analysis reduced the nine variables into two factors. These factors had coefficient alphas

Table 3
Factor analysis results and reliabilities.

	Factor loadings	Reliabilities (alpha)
Marketing skills: development of relationships and services		
Factor one: the supplier's services to wholesalers		.85
The supplier:		
1. Promotes a strong alliance with my company	.783	
2. Organizes my business operation	.781	
3. Accommodates a variety of my needs	.755	
4. Offers trustworthy information (forecasts) and guidance	.744	
5. Supports the mission of my company	.736	
6. Goes out of its way to accommodate my unique needs	.690	
Factor two: the supplier's offerings to wholesalers		.80
The supplier:		
1. Determines the price I pay	.812	
2. Provides me with power brands and/or wide assortments that are crucial for my survival	.700	
3. Satisfies all my needs that makes it impossible for me to shift to another supplier	.602	
Factor three: the supplier's financial assistance		.78
The supplier:		
1. Provides me with capital and/or personnel	.774	
2. Grants me wider margins and/or assumes my loss	.687	
Factor four: buyer's service to wholesaler		.80
The buyer:		
1. Offers trustworthy information (forecasts) and guidance	.803	
2. Promotes a strong alliance with my company	.781	
3. Supports the mission of my company	.704	
4. Accommodates a variety of my needs	.544	
5. Does not negotiate the price	.524	
Factor five: wholesaler's service to buyers		.82
The wholesaler (the respondent):		
1. Provides the buyer with capital and/or personnel	.762	
2. Determines the price of the buyer	.639	
3. Changes the terms of sale to accommodate the buyer's requests	.481	
4. Organizes the operation of the buyer	.480	
Factor six: buyer's resourcefulness		.78
The buyer:		
1. Is important for me because it operates successful business	.783	
2. Is vital for me to carry on my business	.695	
Logistics: movement of physical goods		
Factor seven: wholesaler's intra logistics activities		.82
The wholesaler (the respondent):		
1. Provides JIT operation	.829	
2. Provides supplementary logistics activities at low or no cost	.827	
3. Absorbs cost increases of logistics activities	.723	
4. Facilitates the receipt of returned goods	.687	
5. Manages efficiently the logistics activities among its facilities	.564	
6. Stocks adequate levels of inventories	.557	
Factor eight: The wholesaler's inter-logistics activities		.78
1. Develops state-of-the-art logistics facilities	.849	
2. Hires logistics personnel	.810	
3. Moves efficiently goods within its warehouse	.724	

of 0.78 or greater and were deemed reliable according to Peterson (1994). They included wholesaler's intra-logistics activities and the wholesaler's inter-logistics activities (see Table 3).

3.5. Performance: dependent variable

Kumar (1991) and Kumar, Stern, and Achrol (1992) performance assessment was used to measure the performance of wholesalers in our study. It included goal attainment that was operationalized in terms of net profits, social interactions and satisfaction, adaptability in adopting new products and markets, and synchronization of efforts. Subjects were asked to indicate their perception of any performance increase or decrease resulting from emerging changes in markets.

3.6. Statistical analysis

The relationship of marketing skills and logistics, with performance of small and large wholesalers was examined using stepwise multiple regression analysis. The stepwise method was particularly useful in our research since there was a large pool of predictor variables relating to wholesalers' marketing skills and logistics. The analysis helped retain only those independent variables that contributed significantly to the explanatory power of the model, as it sifted through the group of independent variables in every iteration. Each step, a potential candidate variable is investigated for inclusion in the model based on its contribution to improving the explanatory power of the model. MANOVA and MDA will be also used to determine the differences between small and large wholesalers with respect to marketing skills and logistics variables. MANOVA is useful technique where there are multiple metric criterion variables and one categorical variable, such as is the case with the two small and large wholesalers of this study. MDA is used in conjunction with MANOVA to facilitate determining the direction and intensity of relationships. While MANOVA tests the departure from the null hypothesis, MDA determines the combination of the variables which maximize the departure from the null hypothesis.

4. Results

In support of Hypothesis 1, results showed that the performance of small and large wholesalers was positively associated with marketing skills factors. The factors of "the supplier's financial assistance," and "buyer's services to wholesalers" explained 12.8% of the performance of small wholesalers. In other words, small wholesalers would have better performance if suppliers provided them with financial assistance, and retailers offered them trust, loyalty and efficient communication. The factors of "the supplier's service to wholesalers" and "buyer's service to wholesalers" explained 14.1% of the performance of large wholesalers. In other words, large wholesalers would have better performance if suppliers provided them with power brands, assortments, and assistance programs, and retailers offered them trust, loyalty and efficient communication. In support of Hypothesis 2, results revealed that large wholesalers valued marketing skills more than small wholesalers did. Marketing skills factors explained 14.1% of the performance of large wholesalers versus 12.8% of the performance of small wholesalers (see Tables 4a and 4b). This proved that small wholesalers lacked vision as they were much more consumed with daily activities than they were with developing and acquiring marketing skills (Rawwas et al., 2008).

In support of Hypothesis 3, the factors of "the supplier's service to wholesalers" and "the supplier's financial assistance" were rated higher by large wholesalers than did by small ones (see Table 5). In other words, large wholesalers valued marketing skills of suppliers including power brands, assortments, assistance programs, and financial assistance more than small wholesalers did. Again, this proved the myopic vision of small wholesalers and their lack of marketing skills.

Contrary to Hypotheses 4 and 5, results showed that none of the logistics factors, "wholesaler's intra-logistics activities" and "the wholesaler's inter-logistics activities" explained the performance of small or large wholesalers (see Tables 4a and 4b). In other words, large and small wholesalers did not feel that JIT, supplementary logistics, increased costs absorption, product returns and availability, and logistic communication and facilities would improve their performance. Sometimes, organizations take for granted the accessibility of resources or the establishment of business systems and do not realize their value such as the utilities including electricity, water and gas, and in this case, the logistics systems.

In support of Hypothesis 6, the factor of "wholesaler's intra-logistics activities" was rated higher by large wholesalers than was by small ones (see Table 5). In other words, JIT, supplementary logistics, increased costs absorption, product returns

Table 4a

Multiple regression analysis of the relationships between factors of marketing skills and logistics, and performance of small wholesalers.

Dependent variable: performance of small wholesalers (employees < 30)				
F value				8.794
Significant F				.000
R square				.128
Variable	Coefficient	Standardized beta	T-test	Significance of T-test
The supplier's financial assistance	.050	.117	2.313	.020
Buyer's services to wholesalers	.138	.150	2.868	.004
(Constant)	.834		3.978	.000

Table 4b

Multiple regression analysis of the relationships between factors of marketing skills and logistics, and performance of large wholesalers.

Dependent variable: performance of large wholesalers (employees > 100)				
F value				8.639
Significant F				.000
R square				.141
Variable	Coefficient	Standardized beta	T-test	Significance of T-test
The supplier's services to wholesalers	.071	.199	2.111	.040
Buyer's services to wholesalers	.138	.150	2.876	.002
(Constant)	.209		2.778	.000

Table 5

MANOVA Analysis of determinants of the marketing skills and logistics factors of small versus large wholesalers.

Factors	F-test P-value	Means	
		Small wholesalers	Large wholesalers
(1) The supplier's services to wholesalers	.005	3.8674	4.0093
(2) The supplier's offerings to wholesalers	.562	3.1913	3.1252
(3) The supplier's financial assistance	.004	2.7614	3.0446
(4) Buyer's services to wholesalers	.169	3.5262	3.4446
(5) Wholesaler's services to buyers	.317	2.7623	2.8097
(6) Buyer's resourcefulness	.605	3.7849	3.7935
(7) Wholesaler's intra logistics activities	.001	2.9884	3.1931
(8) The Wholesaler's inter-logistics activities	.887	2.6105	2.5936
Multivariate	.0001		

and availability, and logistics communication and facilities were ranked higher by large wholesalers than did by small ones. Small wholesalers exist mainly because there are many small suppliers and small retailers who might require less service (Stern et al., 1996). The theory of strategic niches asserts that by occupying a market niche of serving small suppliers and small retailers, small wholesalers can afford to be less efficient (Porter, 1979), and consequently, modestly rank these logistic services.

5. Implications

Our Study showed that small wholesalers lack marketing skills and logistics infrastructure. They were interested in the supplier's financial assistance such as providing them with capital and personnel, granting them wider margins, and assuming their loss. In addition, small wholesalers were interested in the buyer's services such as offering trustworthy information, promoting a strong alliance with their company, supporting the mission of their company, accommodating a variety of their needs, and not negotiating the price. On the other hand, large wholesalers were interested in the supplier's service to wholesalers such as promoting a strong alliance with their company, organizing their business operation, accommodating a variety of their needs, offering trustworthy information, supporting the mission of their company, and going out of its way to accommodate their needs. Large wholesalers were also interested in buyer's services to wholesalers same as in the case of small wholesalers. Implications of these results suggest that manufacturers should develop strategies of providing more services to large wholesalers and more funding to small ones; while, retailers must provide services to both large and small wholesalers.

Results also showed that large and small wholesalers rated the supplier's services to wholesalers and the supplier's financial assistance differently. Large wholesalers gave higher ratings for both of these factors than did small wholesalers. Due to their enormous marketing and services offering capabilities, large wholesalers understand better the significance of marketing skills than do smaller ones. Implications of this result propose that suppliers must provide a variety of services to large wholesalers and should encourage small wholesalers to develop their marketing skills to become more competitive in the marketplace.

Relative to logistics infrastructure, large and small wholesalers did not give any weight to wholesaler's intra-logistics and inter-logistics activities in explaining their performance. But, large wholesalers gave higher approval ratings to wholesaler's intra-logistics activities than did small wholesalers. In other words, large wholesalers gave more importance to JIT logistics, supplementary logistics activities at low cost, absorption of logistics activity cost increases, the receipt of returned goods, efficient logistics activities among their facilities, and stocking adequate levels of inventories than did small wholesalers. It appeared that these services were more important for large wholesalers to differentiate themselves and remain competitive than they were for smaller wholesalers. This makes sense as buyers expect more from large wholesalers than do from smaller ones. It also proved the myopic vision of small wholesalers who might perceive that focusing on small retailers and small

manufactures might provide them with enough business. This might be true for now, but with continued technology advances, global economic downturn, and the dominance of giant retailers and wholesalers, the current strategy and vision of small wholesalers might not be any more viable and sustainable.

5.1. Limitations and future research

Despite the contributions of this study, several limitations are apparent and results therefore, should be used within the context. Future research studies can address some of these limitations to broaden the understanding of the research topic. Common method variance, for example, may be a concern since both predictor and criterion variables were measured using the same respondent. However, Harman's single factor test revealed that no single factor in the principal component analysis accounted for more than 50% of the variance in the data. Another obvious methodological shortcoming of the study is the cross-sectional nature of the research design, limiting the ability to convincingly establish causal relationships. This can only be addressed via rigorous, and more difficult longitudinal studies, and could be an important contribution as new alliances evolve among Japanese firms, and research can therefore capture the dynamics of alliance evolution among partner firms.

Third, the study results are limited by the single respondent approach. Time and resource constraints meant seeking a single respondent to maximize the number of wholesaler organizations that could be surveyed. Future research can broaden investigation and enlist multiple respondents across the supplier-buyer dyads. Also, since the present study was designed to provide a snapshot across company sizes and industry types in Hyogo and Osaka prefectures, these results cannot be generalized to all business segments across Japan. Further research can also provide richer insights into the supply chain alliance relationships of wholesalers by modeling the interactive effects of a host of potential internal and external context variables such as industry munificence, competitiveness, organizational structure, and industry type.

Appendix A. The survey

- (I) Please state your agreement or disagreement with the following statements related to the supplier's relationship with your company within the newly designed distribution channel. Please note that newly designed distribution channel is defined as collaborations in which channel members, in contrast to a keiretsu, have the right and autonomy to shift to a new marketing channel when services and prices in the existing one becomes uncompetitive.

The Supplier:

1. Promotes a strong alliance with my company
2. Organizes my business operation
3. Determines the price I pay
4. Accommodates a variety of my needs
5. Provides me with power brands and/or wide assortments that are crucial for my survival
6. Satisfies all my needs that makes it impossible for me to shift to another supplier
7. Offers trustworthy information (forecasts) and guidance
8. Supports the mission of my company
9. Goes out of its way to accommodate my unique needs

- (II) Please state your agreement or disagreement with the following statement related to the buyer's relationship with your company within the newly designed distribution channel.

The Buyer:

1. Offers trustworthy information (forecasts) and guidance
2. Promotes a strong alliance with my company
3. Supports the mission of my company
4. Accommodates a variety of my needs
5. Does not negotiate the price

- (III) Please state your agreement or disagreement with the following statements related to the services you provide to buyer of the newly designed distribution channel.

The Wholesaler (the respondent):

1. Provides the buyer with capital and/or personnel
2. Develops state-of-the-art logistics facilities
3. Determines the price of the buyer
4. Manages efficiently the logistics activities among its facilities
5. Stocks adequate levels of inventories
6. Moves efficiently goods within its warehouse
7. Changes the terms of sale to accommodate the buyer's requests
8. Absorbs cost increases of logistics activities
9. Organizes the operation of the buyer
10. Provides supplementary logistics activities at low or no cost
11. Provides JIT operation

12. Facilitates the receipt of returned goods
 13. Hires logistics personnel
- (IV) Please indicate your agreement or disagreement with the following statements related to your performance affected by the newly designed collaborations among your firm and other channel members.
1. Over the past year, this wholesaler has been successful in generating high profits for its firm given the level of competition and economic growth in my market area.
 2. Last year, the profits that this wholesaler generated were higher than what other competing wholesalers within the same territory generated.
 3. This wholesaler's cost of servicing its customers is reasonable, given the amount of business which the customers generate for this wholesaler.
 4. This wholesaler goes out of its way to make its customers happy.
 5. This wholesaler senses long-term trends in its market area and frequently adjusts by adopting new products.
 6. This wholesaler has often participated in programs important to its customers.

References

- Acs, Z. J., & Audretsch, D. B. (1990). *Innovation and small firm*. Cambridge, MA: MIT Press.
- Acur, N., Gertsen, F., Sun, H., & Frick, J. (2003). The formalization of manufacturing strategy and its influence on relationship between competitive objectives, improvement goals, and action plans. *International Journal of Operations & Production Management*, 23, 1114–1141.
- Audretsch, D. B. (1995). *Innovation and industry evolution*. Cambridge, MA: MIT Press.
- Audretsch, D. B., Prince, Y. M., & Thurik, A. R. (1999). Do small firms compete with large firms? *Atlantic Economic Journal*, 27, 201–209.
- Braganza, A. (2002). Enterprise integration: Creating competitive capabilities. *Integrated Manufacturing Systems*, 13, 562–574.
- Caves, R. E., & Porter, M. E. (1977). From entry barriers to mobility barriers. *Quarterly Journal of Economics*, 91, 241–261.
- Celly, K. S., & Frazier, G. L. (1996). Outcome-based and behavior-based coordination efforts in channel relationships. *Journal of Marketing Research*, 33, 200–210.
- Claycomb, C., Droge, C., & Germain, R. (1999). The effect of just-in-time with customers on organizational design and performance. *International Journal of Logistics Management*, 10, 37–59.
- Claycomb, C., Germain, R., & Droge, C. (1999). Total system JIT outcomes: Inventory, organization and financial effects. *International Journal of Physical Distribution & Logistics Systems*, 29, 612–627.
- Cullen, J. B., Johnson, J. L., & Sakano, T. (2000). Success through commitment and trust: The soft side of strategic alliance management. *Journal of World Business*, 35, 223–240.
- Cutts, R. (1992). Capitalism in Japan: Cartels and Keiretsu. *Harvard Business Review*, 70, 48–60.
- Das, A., & Handfield, R. (1997). Just-in-time and logistics in global sourcing: An empirical study. *International Journal of Physical Distribution & Logistics Management*, 27, 156–244.
- Davies, J. (2003). Inside the best in class D/C: A closer look at warehouse management systems. *World Trade*, 16, 66–68.
- Doney, P. M., & Cannon, J. P. (1997). An examination of the nature of trust in buyer–seller relationships. *Journal of Marketing*, 61, 35–51.
- Dong, Y., Carter, C., & Dresner, M. (2001). JIT purchasing and performance: An exploratory analysis of buyer and supplier perspectives. *Journal of Operations Management*, 19, 471–480.
- Eisenberger, R., Fasolo, P., & Davis-LaMastro, V. (1990). Perceived organizational support and employee diligence, commitment and innovation. *Journal of Applied Psychology*, 75, 51–59.
- Fein, A. J., & Anderson, E. (1997). Patterns of credible commitments: Territory and brand selectivity in industrial distribution channels. *Journal of Marketing*, 61, 19–34.
- Fletcher, G. P. (1993). *Loyalty: An essay on the morality of relationships*. New York: Oxford University Press.
- Frazier, G. L. (1999). Organizing and managing channels of distribution. *Journal of the Academy of Marketing Science*, 27, 226–240.
- Frazier, G. L., Jaworski, B. J., Kohli, A. K., & Weitz, B. (1994). Buyer–supplier relational characteristics and joint decision making. *Marketing Letters*, 5, 259–270.
- Gilliland, D. I., & Bello, D. C. (2002). Two sides to attitudinal commitment: The effect of calculative and loyalty commitment on enforcement mechanisms in distribution channels. *Journal of the Academy of Marketing Science*, 30, 24–43.
- Gundlach, G. T., & Murphy, P. E. (1993). Ethical and legal foundations of relational marketing exchanges. *Journal of Marketing*, 57, 35–46.
- Han, J. S. (1991). *Conflict structure of Korean education system*. Seoul: Yonsei University Press.
- Hall, L. M. (1949). *Distributive trading*. London: Hutchinson's University Library.
- Heady, R., Maples, G., & Greco, A. (2005). Cost engineering for small businesses. *AACE International Transactions*, 41–46.
- Hobart, C. (2011). *Price pressures and consolidation in F&B sector*. New York: Grant Thornton.
- Jarvis, L. P., & Wilcox, J. B. (1977). True vendor loyalty or simply repeat behavior? *Industrial Marketing Management*, 6, 6–19.
- Johanson, J. (1989). *Business relationships and industrial networks: Perspectives on the economics of organization*. Lund: Lund University Press.
- Kienzle, R., & Shadur, M. (1997). Developments in business networks in East Asia. *Management Decision*, 35, 23–31.
- Kinsey, J. (2000). A faster, leaner supply chain: New uses of information technology. *American Journal of Agricultural Economics*, 18, 1123–1135.
- Ko, B. S. (1992). *A study on values*. Seoul: Nanam.
- Kumar, N. (1991). *A methodology for assessing channel intermediary performance from the supplier's perspective*. Ph.D. dissertation. Evanston, IL: Northwestern University.
- Kumar, N., Stern, L. W., & Achrol, R. S. (1992). Assessing reseller performance from the perspective of the supplier. *Journal of Marketing Research*, 29, 238–253.
- La Londe, B. J., Cooper, M. C., & Noordweier, T. C. (1988). *Customer service: A management perspective*. Oak Brook, IL: Council of Logistics Management.
- Laurent, M. (1996). *Vertical cooperation between manufacturers and retailers*. Frankfurt: Deutscher Fachverlag.
- Lee, J., & Miller, D. (1999). People matter: Commitment to employees, strategy and performance in Korean firms. *Strategic Management Journal*, 20, 571–579.
- Lee, J., & Lee, M. (1994). *Korean management in global competition*. Seoul: Gim-Young Sa.
- Lee, J., & Lee, M. (1995). The Shinbaram management: A conceptual model. *Korean Management Review*, 24, 339–369.
- Lee, M. Y., & Mulford, C. L. (1990). Reasons why Japanese small businesses form cooperatives: An exploratory study of three successful cases. *Journal of Small Business Management*, 45, 62–71.
- Leong, G. K., Snyder, D. L., & Ward, P. T. (1990). Research in the process and content of manufacturing strategy. *OMEGA*, 18, 283–297.
- Lusch, R. F., & Brown, J. R. (1996). Interdependency, contracting and relational behavior in marketing channels. *Journal of Marketing*, 60, 19–38.
- Maltz, A., & Maltz, E. (1998). Customer service in the distributor channel empirical findings. *Journal of Business Logistics*, 19, 103–129.
- Minarro-Viseras, E., Baines, T., & Sweeney, M. (2005). Key success factors when implementing strategic manufacturing initiatives. *International Journal of Operations & Production Management*, 25, 151–179.
- Mohr, J., & Nevin, J. (1990). Communication strategies in marketing channels: A theoretical perspective. *Journal of Marketing*, 54, 35–50.
- Moorman, C., Deshpande, R., & Zaltman, G. (1993). Factors affecting trust in market research relationships. *Journal of Marketing*, 57, 81–101.

- Moorman, R. H., Blakely, G., & Niehoff, B. (1998). Does perceived organizational support mediate the relationship between procedural justice and organizational citizenship behavior. *Academy of Management Journal*, 41, 351–357.
- Morgan, R. M., & Hunt, S. D. (1994). The commitment-trust theory of relationship marketing. *Journal of Marketing*, 58, 20–38.
- Narasimhan, R., & Jayaram, J. (1998). An empirical investigation of the antecedence and consequences of manufacturing goal achievement in North American, European and Pan Pacific firms. *Journal of Operations Management*, 16, 159–176.
- Noordewier, T. G., John, G., & Nevin, J. R. (1990). Performance outcomes of purchasing arrangements in industrial buyer–vendor relationships. *Journal of Marketing*, 54, 80–93.
- Nooteboom, B. (1994). Innovation and diffusion in small firms: Theory and evidence. *Small Business Economics*, 6, 327–347.
- Ong, J. (2011). Apple reportedly absorbing increased costs from supply disruption in Japan. *Appleinsider*, 45(March), 30–31.
- Operations Management Roundtable. (2001). Optimizing costs along the supply chain. *Decision Support Memorandum*, 34(April), 65–72.
- Organ, D. W. (1990). The motivational basis of organizational citizenship behavior. In B. M. Staw & L. L. Cummings (Eds.), *Research in organizational behavior* (pp. 43–72). Greenwich, CT: JAI Press.
- Organ, D. W., & Konovsky, M. (1989). Cognitive versus affective determinants of organizational citizenship behavior. *Journal of Applied Psychology*, 74, 157–164.
- Peterson, R. A. (1994). A meta-analysis of Cronbach's coefficient alpha. *Journal of Consumer Research*, 21, 381–391.
- Porter, M. E. (1979). The structure within industries and companies' performance. *Review of Economics and Statistics*, 61, 214–227.
- Rawwas, M. Y. A., Konishi, K., Kamise, S., & Al-Khatib, J. (2008). Japanese distribution system: The impact of newly designed collaborations on wholesalers' performance. *Industrial Marketing Management*, 37, 104–115.
- Rawwas, M. Y. A., Vitell, S., & Barnes, J. (1997). The management of conflict by utilizing individual power sources: A retailers' perspective. *Journal of Business Research*, 40, 49–64.
- Ring, P. S., & Van de Ven, A. H. (1992). Structuring cooperative relationships between organizations. *Strategic Management Journal*, 13, 483–498.
- Rovit, S., Sweder, K., & Buchanan, J. (2002). How top wholesalers succeed: Secrets of a brutal business. *Strategy and Leadership*, 30, 32–37.
- Rytter, N. G., Boer, H., & Koch, C. (2007). Conceptualizing operations strategy processes. *International Journal of Operations & Production Management*, 27, 1093–1114.
- Schurr, P. H., & Ozanne, J. L. (1985). Influences on exchange processes: Buyers' preconceptions of a seller's trustworthiness and bargaining toughness. *Journal of Consumer Research*, 11, 939–953.
- Setaishi, S. (2001). Airline-industry tailspin continued in 2nd period. *Wall Street Journal* July: New York, A.25.A.
- Sheth, J. N., & Parvatiyar, A. (1992). Towards a theory of business alliance formation. *Scandinavian International Business Review*, 1, 71–87.
- Shin, Y. K. (1993). *Korean management: Present and future*. Seoul: Bak-Young Sa.
- Shore, L. M., & Wayne, S. J. (1993). Commitment and employee behavior. *Journal of Applied Psychology*, 78, 774–780.
- Small and Medium Enterprise Agency. (1997). *Survey of Management in the Distribution Industry (Wholesalers)*, 44, 56–60.
- Stank, T. P., Daugherty, P., & Ellinger, A. E. (1996). Information exchange, responsiveness, and logistics provider performance. *International Journal of Logistics Management*, 7, 43–58.
- Stern, L. W., El-Ansary, A. I., & Coughlan, A. (1996). *Marketing channels* (5th ed.). Englewood Cliffs, NJ: Prentice Hall.
- Swamidass, P. M., Baines, T., & Darlow, N. (2001). Evolving forms of manufacturing strategy development: Evidence and implications. *International Journal of Operations & Production Management*, 21, 1289–1304.
- Swink, M., & Way, M. H. (1995). Manufacturing strategy: Propositions, current research, renewed directions. *International Journal of Operations & Production Management*, 15, 4–26.
- Trombly, R. (2001). Team spirit. *Industrial Distribution*, 90, 53–57.
- White, R., & Pearson, J. (2001). JIT, system integration and customer service. *International Journal of Physical Distribution & Logistics Management*, 31, 313–334.
- Wisner, J. D., Leong, G., & Tan, K. C. (2005). *Principles of supply chain management*. New York: Thomson.