

KNOWLEDGE SHARING IN THE SUPPLY CHAIN NETWORK: FINDINGS FROM SELECTED “WARUNG TEGAL” BUSINESS IN BANDUNG

(*Knowledge Sharing dalam Jaringan Rantai Pasok: Temuan dalam Bisnis "Warung Tegal" di Bandung*)

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Abstract

Knowledge sharing activity has been considered as the key activity in knowledge management. This study aims at exploring and conceptualizing knowledge sharing process and behaviors of the members of *Warung Tegal (Warteg)* business supply chain network. The study specifically examines the role of *Warteg* in the knowledge sharing process. Using informal interviews to five selected *Warteg* owners, value chain, supply chain network, and knowledge sharing process are explored. Knowledge sharing behavior among the actors in the network is then analyzed. The study found that most of the *Warteg* owners chose similar source of suppliers which shared similar certain knowledge to the *Warteg* owners. Suppliers play a significant role in owners' decision making. The difference lies on the decisions taken by owners after knowledge have been transferred.

Keywords: knowledge sharing, supply chain, *warteg*, decision making

Abstrak

Knowledge sharing merupakan aktivitas kunci dalam konteks manajemen pengetahuan. Studi ini bertujuan menggali dan menterjemahkan proses knowledge sharing dan perilaku para anggota dalam suatu jaringan rantai pasok. Subjek studi adalah lima Warung Tegal (Warteg), yang dipilih dari berbagai area di Bandung. Warteg dinilai sebagai suatu bisnis berskala kecil, namun dianggap mampu survive saat krisis ekonomi. Informasi mengenai rantai nilai, rantai pasokan, dan proses knowledge sharing diperoleh melalui wawancara informal dengan para pemilik Warteg. Perilaku para aktor dalam proses knowledge sharing kemudian dianalisis. Studi menemukan fakta bahwa meskipun para pemilik Warteg tidak saling mengenal, mereka memilih pemasok bahan baku yang sama, dan juga memilih strategi operasional yang relatif serupa. Pemasok memegang peranan penting dalam proses pengambilan keputusan yang dilakukan para pemilik Warteg. Perbedaan nampak pada keputusan akhir para pemilik Warteg, setelah knowledge diterima dan diolah oleh para pemilik tersebut.

Kata Kunci: knowledge sharing, rantai pasok, *warteg*, pengambilan keputusan

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1. INTRODUCTION

Knowledge sharing activity has been considered as the key element of knowledge management process. In order to retrieve knowledge resources and to encourage knowledge sharing, many organizations usually utilize knowledge management systems. Today's modern organizations are eventually members of the knowledge-intensive society. In this case, these organizations consider knowledge as a critical strategic resource. In other words, knowledge-based firm considers knowledge as the source of firm's competitive advantage [1],[2],[3],[4]. The main objective of Knowledge management is to build the organization's ability to obtain, manage, and distribute the knowledge all over the organization with the aim of improving its effectiveness, efficiency and competitiveness [5].

A crucial factor of knowledge management is knowledge sharing process [1],[5]. Therefore, any organization should develop an effective knowledge sharing process and support its employees and partners to share knowledge about markets, products, customers, and competitors [6],[7],[8]. In other words, knowledge sharing process happens along the supply chain network of any organization.

Some of the tools and technologies commonly implemented to support knowledge sharing include: computerized directory, knowledge repository, intranets, email, discussion forum, e-learning tools, videoconferencing, teleconferencing, etc. These tools and technologies definitely need investments, and many smaller scale organizations consider them as costs instead of investments.

Furthermore, research findings have shown that even though tools and technologies are important in knowledge sharing process, concrete executions have found that the technology availability does not ensure that knowledge will be shared among the members of the organizations [9],[10].

2. KNOWLEDGE SHARING

There is no exact definition of knowledge sharing. Many researchers have developed the term knowledge sharing. Davenport & Prusak (1998) define knowledge sharing as a process of exchanging knowledge between individuals and groups [11]. Alavi & Leidner (2001) define it as a process of disseminating knowledge throughout the organization, and the process occurs between individuals, groups or organizations using any supporting of tools and technologies [5].

Practically, not all members in any organizations are willing to share their knowledge without certain personal intention. In other words, barriers do occur in knowledge sharing process. Riege (2005) categorizes knowledge sharing barriers into individual barriers, organizational barriers and technology barriers [12]. According to Wheatley (2000), knowledge sharing process will likely to happen if employees consider that it will support their work. They will voluntarily share their knowledge if they feel encouraged to share [13].

Cheng et al. (2008) suggest that in order to gain advantages from knowledge sharing process, organizations should understand the factors influencing knowledge sharing behaviors of the partners along the supply chain. It is therefore necessary to understand the supply chain network collaboration from suppliers to end customers [3].

In small business context, Soosay et al. (2008) suggest that knowledge sharing process in small business likely happens if the actors change their mind-set and culture. Sharing culture will encourage knowledge transfer in order to capture the benefits of knowledge throughout the network. To break down barriers among members of supply

chain network, cross-functional and cross-organizational groups are used in the process. This process requires members come together regularly to discuss many issues [14].

3. WARUNG TEGAL BUSINESS IN BANDUNG

Warung Tegal (i.e. *Warteg*) is considered as a small business in Indonesia considering the number of employees. A small restaurant is called *Warteg* if the owner (and most of the employees) comes from *Tegal*, a small town in Central Java. Most of *warteg* business employs at least 4 employees, depending on the operating hours. Approximately, there are at least 50 *Warteg* in Bandung. Their revenues ranged from Rp. 500,000 to 3,000,000 per month (source: interview).

4. OBJECTIVE AND METHOD OF STUDY

The study aim is to conceptualize the knowledge sharing process and behaviors of the members of *Warteg* business supply chain network. More specific, the study tries to understand the role of *Warteg* in knowledge sharing process.

A case study was carried out to five selected *Warung Tegal* (i.e. *Warteg*) business in Bandung. Exploratory study was the first step taken to understand the value chain and supply network among the actors in *Warteg* business. Using informal interview, nine visits were done to each *Warteg* owner within five weeks period in June-July 2012. The first two visits were to understand the value chain, as well as the supply chain network among the actors in *Warteg* business. The next visits were to explore the knowledge sharing process among the actors. Informal interviews were the only tool to gain the targeted information. Visits were conducted at nights at the times when suppliers visit the *Wartegs*.

5. FINDINGS AND ANALYSIS

5.1 Supply Chain in *Warteg* Business

Supply chain network in *Warteg* business consists of food suppliers, non food suppliers, the *Warteg* itself, and direct customers. In general, the characteristics and the supply chain networks of five *Wartegs* being studied can be described as follow:

Table 1. Characteristic of *Wartegs* analyzed

Number of Employee	Revenues per day (approx.)	Operating hours	Interviewee	Education	Area
6	3,000,000	18	Owner	High School	Astanaany ar
7	3,500,000	20	Owner's wife	Elementary	Tamansari
6	2,500,000	18	Owner	High School	Kosambi
6	3,000,000	18	Owner	Junior High	Sukajadi
6	2,500,000	18	Owner's son	High School	Kopo

Source: interview

Table 2. Goods-to-service providing value chain of *Warteg* business

Suppliers	Inputs	Transformation process	Outputs	Customers & market segment
Raw Food wholesalers	Food raw materials	Food processing	Good foods	In- <i>warteg</i> seating
Spices wholesalers	Spices	Order taking	Satisfied customers	Seasonal catering
Oil wholesalers	Cooking oil	In- <i>warteg</i> service	Fast service	
Villager	Kerosene	Payment		
	Labor			

Source: interview

Table 2 represents the general value chain perspective of a *Warteg* business. Raw food wholesalers consist of four major suppliers: meat and fish, egg, rice, and vegetable. Spices and vegetables are directly bought in traditional market. Cooking oil is supplied by travelling oil distributor, as well as kerosene. Labors are all recruited from Tegal. The supply chain network can be described as follow:

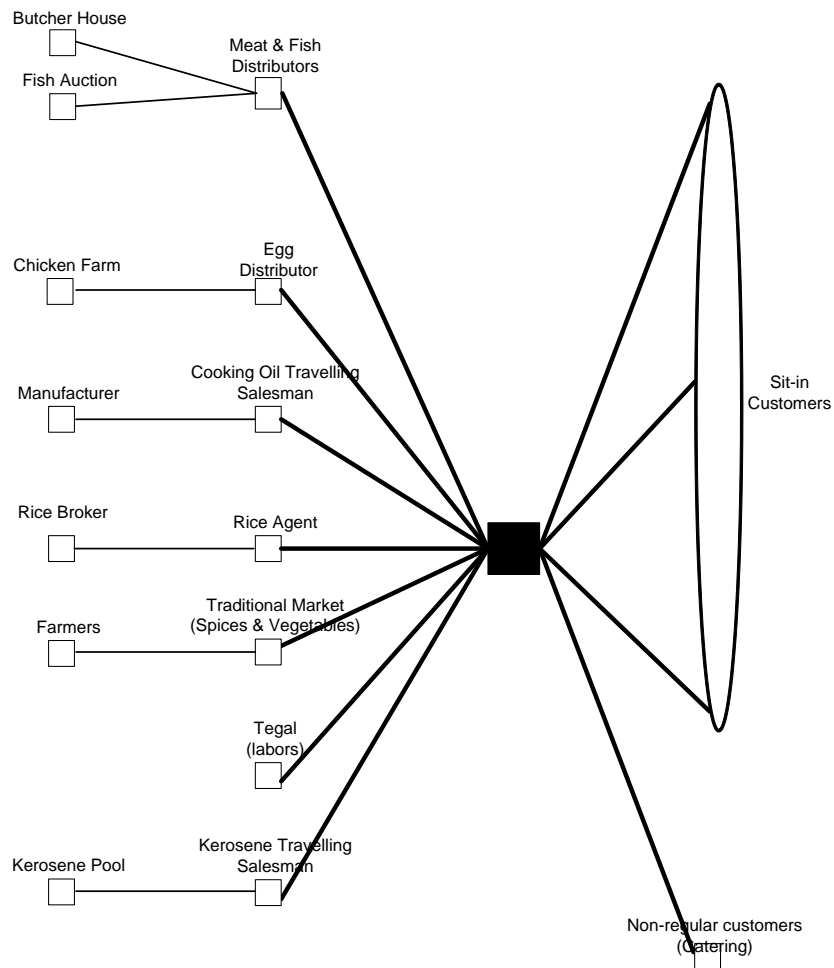


Figure 1. Supply chain network of *Warteg* business (source: interview)

Simple transformation process is conducted twice daily: cooking the foods. Foods, as the main products, consist of 20-26 menus, which 8-10 of them are meat products (i.e. chicken, beef, and fish). Two cooks are responsible for this process, divided into two shifts. They work for four hours each to produce all the foods, and spend another five hours each as dish washers. Four employees are in charge of food servicing process. The *Warteg* operates seven days a week, with the possibility of providing catering once a week for special occasion. This is very interesting since all of the *Warteg* owners decide to have similar operating strategies.

5.2 Knowledge Sharing Among the Network

Knowledge sharing process begins with delivery activity, from suppliers to *Warteg*. Interestingly, supplies always arrived at night, between 20.00 and 21.00 (except for kerosene salesman, who usually visits around 08.00-09.00. Each supplier spends 15 to 20 minutes to “chat” to *Warteg* owner/employee. Conversation materials come from simple news to economics and politics. Suppliers always start the conversation, especially when they intend to mention certain issues. In other words, knowledge sharing process starts with suppliers. There are three major issues that suppliers always try to deliver: gossips, economics, and politics.

The most interesting topic to discuss is politics. Suppliers have a methodological way to deliver a message to *Warteg* owner. Usually they begin with light topic from TV news. Then they elaborate the news to other subject, mostly economics. Then they give some suggestions regarding their conversation about the topic. These suggestions mostly affected the decision making of the owners. For example, a *Warteg* owner in Kopo has a plan to close his “hut” during Ramadan 2012. The plan was finally changed after he heard from a supplier that the regional government plan to renovate the 2 km length street in front of his *Warteg* during that month. Since the owner has never heard of this plan, he decided to open his *Warteg* during Ramadan, and then return to his home city a week after Idul Fitri. The relation between knowledge sharing and decision making can be conceptualized as follow:

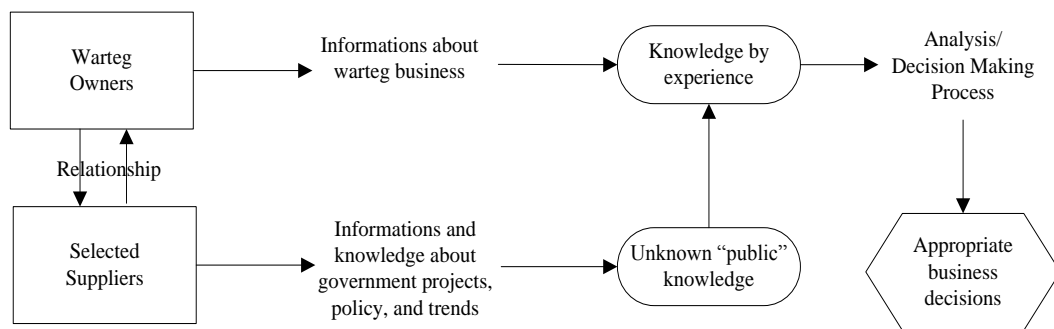


Figure 2. Conceptualization of knowledge sharing and decision making among *Warteg* business supply chain

Further studies were conducted regarding the factors affecting *Warteg* owners in using knowledge from suppliers to decision making process. The factors are listed in Table 3.

Table 3. Factors affecting *Warteg* owners to use certain information in decision making process

Respondent	Dominant factors
1	Interesting subjects, reliability of the sender
2	Interesting subjects, clear in meaning
3	Interesting subjects, accuracy of previous information
4	Accuracy of previous information, easy to understand
5	Reliability of the sender, easy to understand

Source: interview

The relations between the above factors and decision making process can be conceptualized as follow:

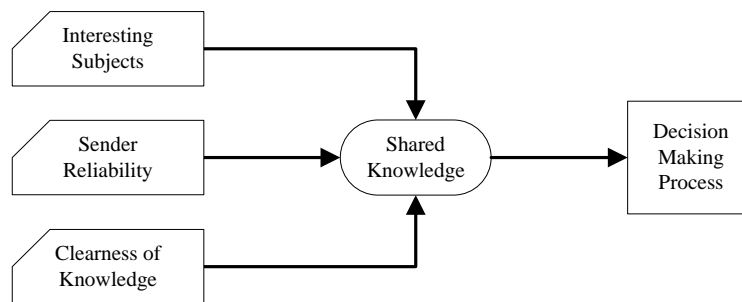


Figure 3. Conceptualization of factors affecting decision making process of *Warteg* owners

These findings confirm what previously conceptualized by Lamming et al (2006) that in order to exchange sensitive information and knowledge in a supply chain network, organizations must create understanding and transparency [15]. Those factors are only supported if a knowledge source is reliable to the other, and the knowledge being shared is interesting and clear to the recipient.

6. CONCLUSION

Knowledge sharing in *Warteg* supply chain starts from suppliers as the encourager. The *Warteg* owner role lies in the selection of knowledge to be used in decision making process. Knowledge is selected and accepted based on three main factors: subjects must interest the owner, the sender has been proven to providing accurate information and knowledge, and the knowledge should be clear and easy to understand. These factors create an understanding among the actors that they need each other mutually. Suppliers need the *Warteg* owners as buyers, while *Warteg* owners need suppliers to support them with information and knowledge, as a valuable source in decision making process.

7. LIMITATION AND FUTURE RESEARCH

This study has shown the importance of seeing knowledge sharing in small business context, and has identified several important factors to be considered in knowledge sharing process. Furthermore, a relation between knowledge sharing and

decision making process is also conceptualized. Since there is no quantification of the relations between each of the factors, it can be assumed that these factors are needed to support the knowledge sharing process, and yet to be further tested in larger conceptual framework.

Another limitation is that this study was done in limited number and scope of small business context. Moreover, this study only included *Warteg* owners' point of view and did not cover suppliers and customers' opinion, due to the limited access to suppliers and customers. Further study in a larger setting would be valuable for the result to be generalized.

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