

# Managing Innovation through Knowledge Sharing In an Indonesian Coconut SME

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**Abstract** - This research seeks to know and understand how knowledge sharing is developed to enhance innovation processes in an Indonesian coconut SME. This research conducted a case study approach in an innovative coconut SME, in which 3 competent people were interviewed in the company as a data collection method. The research has found that knowledge sharing is developed by two methods, direct and indirect. While the direct method focuses on the interaction of knowledge contributor and receiver, the indirect method uses the help of media as a means of knowledge sharing. The research results indicate that direct method has been a considerably more effective in achieving knowledge sharing, due to tacit knowledge usage. Meanwhile, the indirect method serves as leverage for the company to ensure that knowledge is available and accessible. Moreover, the role of knowledge brokers has given an additional understanding on how knowledge sharing is developed in an SME by broadening the knowledge throughout the company. This study has also explored that absorptive capacity becomes the main factor influencing the knowledge transfer success. Employees' awareness to become self learners, motivation, reward system, and level of education has emerged as reasons that determine the level of knowledge acceptance.

## I. INTRODUCTION

Indonesia supplies more than 19 million metric tonnes of world coconut needs, or 30% of total world production. However, despite being a number one producer of coconut all over the world, Indonesia has not yet felt the benefits from the advantage.

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Most Indonesian coconut products are sold in forms of low end products, such as copra and crude coconut oil, which has less value compared to high end products. The condition of low added value products from Indonesia arises from the lack of innovative practices of coconut producers, due to the fact that the majority of producers are small and medium Enterprises (SMEs). Consequently, to raise Indonesian coconut products to a higher value, innovation is needed. There are many ways for SMEs to perform innovation. One of which is by having knowledge sharing in its organisation. The reason why knowledge sharing can be important for SMEs is because it becomes the foundation by which individuals can continuously contribute to the development of knowledge creation and management. However, only a small number of researches have focussed on knowledge sharing strategies in SMEs, where most literature has discussed knowledge sharing as part of knowledge management in large firms. Therefore, this study aims to investigate how the knowledge sharing is practiced in SMEs, especially in an Indonesian coconut SME, as an important factor that produces innovation.

## II. LITERATURE REVIEW

### A. The Nature of the Indonesian coconut SMEs

The Indonesian coconut industry is dominated by small scale companies in which, the majority of the products are produced using low technology. For example, Lay and Pasang (1998) mention products like copra, charcoal, and palm sugar involves only a small number of technologies in their production. Therefore, the quality of these products is considerably poor Sulyanto (2013). Meanwhile, the high-end exported products e.g. desiccated coconut, coconut oil, and active charcoal are produced by medium and high level enterprises. In this level, the technology involvement is more intense compared to the small level. Moreover, Lay and Pasang (1998) formulate strategies needed by Indonesian coconut SMEs to achieve sustainable development of Indonesian coconut industry. One of which is to have product diversifications. Product diversification in coconut industry can be varying, in which coconut trees provide a range of opportunity.

For Indonesian coconut SMEs, this condition is contradictory, since coconut trees provide a whole range of products opportunities, where added value

from the coconut should be maximized to create a competitive advantage for SMEs. Dewi (2011) states that the opportunities of Indonesian coconut industry are: increasing market demand; opportunity on free export taxes; and the development of higher value added products.

#### B. Knowledge Management and Innovation

Knowledge in general is a conversion process of collected data to information. This information then becomes knowledge when it is applied into something we need. In most knowledge paradigms, it clearly states that knowledge comes from individual awareness and/or experience, which further becomes personal knowledge. Additionally, knowledge can be classified into two types; tacit and explicit. Polanyi (1967) defines tacit knowledge as a knowledge that we know more than we state. Meanwhile, explicit knowledge is the form of knowledge that has been already codified, thus make this knowledge as reachable and easy to communicate (Nonaka 1991). Seidler-de Alwis and Hartmann (2008) argue that both tacit and explicit serve equally in knowledge creation. To be able to use knowledge, the explicit requires the presence of tacit.

Knowledge management comprises of three dimensions; knowledge creation, knowledge sharing, and knowledge utilisation. The basis of knowledge creation theory came from Nonaka and Takeuchi's work. They emphasize that knowledge creation comes initially from personal knowledge, and mostly in forms of tacit. In order to make knowledge becomes public domain and reachable, it needs to be socialized with other members within an organisation.

In addition, knowledge as a part of knowledge management (KM) has been discussed widely for its benefits in supporting innovation in organisations. For example, Maqsood (2006) explains that the link between innovation and knowledge management is that innovation comes from tacit knowledge of one person who acts as agent of change, and begins to influence people to innovate. Adding to this, Du Plessis (2007) views knowledge management serves as a 'catalyst' for innovation, as it provides the access to knowledge based resource that is needed to perform innovation. Firestone et al. (2005) define knowledge management as a continual process of knowledge development to improve results and the knowledge itself.

Leal-Rodríguez et al. (2013) argue that KM works by providing management with the necessary framework that is needed to perform innovation. This structure is essential for organisations so that they can keep improving their capability to innovate. Moreover, López-Nicolás and Meroño-Cerdán (2011) claim that KM supports companies to be creative, proficient and productive which raises their competitive advantage. Therefore, it is inevitable that KM leads to better firms performance through innovation process (Du Plessis 2007).

#### C. Knowledge Sharing in SMEs

Baptista Nunes et al. (2006) argue that SMEs are still low in applying knowledge management as part of their business strategy. As a result, SMEs need to apply knowledge management strategy as their core competency (McAdam & Reid 2001). Moreover Guzmán, Serna and de Lema (2012) demonstrate three benefits of KM for SMEs as follow. Firstly KM can make SMEs aware of the outside knowledge that might be useful for them and bring it to the company. Secondly it helps the company to develop outside knowledge and utilize it to create competitiveness in their production. Thirdly KM is beneficial to ameliorate management system. Riege (2005) argue that SMEs are lack in maximizing their potential to use knowledge as their competitive strategy and do not have strategic approach to share knowledge leading to a lack of innovative performances.

Du Plessis (2007) views that the absence of explicit knowledge in an organisation makes knowledge transfer process hard to achieve, leading to constrain in the innovation practice. Therefore, the process of shifting tacit to explicit is important for an organisation. Tsui et al. (2006) characterise three ways as knowledge sharing strategy based on the media used, which is writing, speaking and information technology. Although it is generally believed that knowledge sharing strategy has different outcomes between companies, some researchers have found similarities in methods of knowledge sharing practices. For example, Ohiorenoya and Obada (2014) found that the most frequently used method for KS is verbal communication, in forms of face to face meeting. Extending this idea, McAdam and Reid (2001) compared 46 large firms to 49 SMEs in regards to their perspective in knowledge management, and found that the most practiced method to share tacit knowledge is by informal discussion. This method also appears to have full support from the companies. This view indicates that dialogue (in forms of informal discussion) has significant contribution in acquiring tacit knowledge. Besides methods of sharing knowledge, it is also important to explore factors that contribute to knowledge sharing processes. Much literature focus on the individual factor as the main factor that influences knowledge sharing in organisations. Riege (2005), for instance, addresses three elements that need to be fulfilled by a company in order to have an effective knowledge sharing process, that is individual factor (such as motivation, support, and incentive of employees to capture and share their knowledge); organisational factor (company goals and strategy in relation to knowledge sharing practices) and technological factor (knowledge accessibility to the organisation). From this framework, it can be seen that the knowledge sharing characteristic of a company will be different to others (due to the difference of company's culture), which means :

competitive advantage for one company cannot be copied by others.

Szulanski (1996) states the effectiveness of knowledge transfer in organisations depends on three factors, namely: absorptive capacity of the recipient; causal ambiguity; and relationship between the source and the receiver. However, in SMEs where informal interaction dominates the activity, the causal ambiguity and individual relationship do not significantly affect the knowledge sharing process. Hence, the possible factor that might influence knowledge sharing in SMEs is absorptive capacity of recipients.

Similar to previous notions, Haldin-Herrgard (2000) points out main difficulties in tacit knowledge sharing are awareness and language. The issues are not only communicating and articulating what we know, but also how to make tacit connects to explicit. This idea is strengthened by Finally, the use of IT as a strategy to share knowledge has drawn attention to many academics. Several researchers have tried to discuss the importance of IT on knowledge sharing effectiveness. To illustrate, Choi, Lee and Yoo (2010) suggest that to have an effective knowledge sharing process, a company needs to consider the selection of their IT tools. A more general example is from Baptista Nunes et al. (2006) who state that the use of ICT as knowledge management approach has demonstrated to bring values for large companies, while in SMEs KM is performed in an informal way, which does not rely much on ICT systems.

TABLE I  
PROPOSED RESEARCH FRAMEWORK

Research Questions	Factors Examined	Key Literatures
How is knowledge sharing developed in an Indonesian coconut SME?	Method for sharing knowledge	Nonaka and Takeuchi (1991); McAdam and Reid (2001); Smith (2001);
What Factors are important to share knowledge in an Indonesian coconut SME?	Absorptive capacity, Role of knowledge broker, Role of IT	Riege (2005); Szulanski (1996); Haldin-Herrgard (2000); Tsui et al. (2006); Baptista Nunes et al. (2006)

### III. RESEARCH METHOD

The data was collected using semi-structured interview in SR company. The company was selected as source of information for this study due to the reason of the company has been successfully practicing innovation in its daily activities and becoming source of knowledge for other coconut SMEs in Indonesia. It indicates that the company has knowledge sharing as a part of their business innovation. In addition, 3 people were selected as source of information for this research. They were

selected for their abilities and experiences in relation to innovative practices in the company.

The interview was conducted in two periods. The first interview was done in person with the owner, and IT staff. The second was done by phone to the owner and marketing manager. The second interview was needed to complement data from the first interview. Each interview was tape-recorded and lasted between 40-60 minutes. Finally the data was analysed using descriptive and interpretive approach, in which researcher's interpretations were contrasted with past researches and literatures to give a more general understanding of knowledge sharing practices.

### IV. FINDINGS AND DISCUSSION

#### A. How is knowledge sharing developed in an Indonesian coconut SME?

Knowledge sharing is developed by two methods, one direct and one indirect. The Direct method includes direct mentoring from the owner, training, apprentices, and assignments. The Indirect method involves media as means of knowledge transfer, such as information technology (IT) and paper. This method covers Standard Operating Procedure (SOP), digital video disk (DVD), and television.

The Direct method plays an important role in the effectiveness of knowledge sharing in the SME, as a majority of knowledge is shared in forms of tacit knowledge. Direct mentoring from the owner to selected employees has made the knowledge sharing more effective, where, both parties can make real-time communication, and then extend the learning process through dialogue. Although many researches and studies view tacit knowledge as knowledge that difficult to be shared because it's still in the forms of personal knowledge, which means that the tacit knowledge is only presence in people minds and hard to be accessed, but for companies that do not apply knowledge management strategy in its businesses tacit knowledge might serve as their valuable capital. This is probably because these companies have different culture with big companies. For example, Sumber Rejeki has an informal culture in their activities, in which most of information and knowledge sharing activities take place by informal discussion.

This finding accommodates McAdam and Reid (2001); and Smith (2001) theories, in which direct communication and informal interaction between the knowledge source and the recipient as a preferred method for SMEs to share knowledge. Since in this company tacit knowledge holds the biggest proportion of knowledge, this then confirms Nonaka and Takeuchi's theory in relation to tacit knowledge as an important part to create competitive advantage in an organisation.

Additionally, the role of knowledge brokers is surprisingly crucial in the SME. They work as trainers whose role is to spread knowledge wider inside the organisation. While, Tsui et.al. (2006) suggest that

knowledge brokers are important to bridge knowledge from organisation to outside parties (e.g. government and academics), the data shows that it is also important to have knowledge brokers inside small firms.

However, the data also indicates that the company only absorbs 30% of the owner's knowledge. Given this fact, the researcher considers that this might create disadvantage for the company in terms of performing innovative activities. Because, inadequate knowledge in the company might limit new ideas to be developed to create innovation.

The second method, indirect, contributes 30% of company knowledge. This method varies from media used to help knowledge transfer processes. The most used media is information technology (IT), where the owner tries to store and transfer his knowledge by using media such as company's website, and video instruction. Adding to this, the company also collaborates with local television channel to record his views, and then it can be accessed through a video-sharing website.

Seeing that the use of IT dominates all the indirect methods, company supports to accommodate these needs is important. Although the use of IT as part of strategies to share knowledge would be challenging for small companies in terms of providing designated person to manage IT, but the possibility of knowledge to be shared effectively is too important to be neglected. Hence, the role of government is crucial to help small companies to be competitive, one of which is by providing trainings in IT field. Additionally, the use of IT as tools to help knowledge sharing process (storing and accessing) resonates with Choi et.al (2010) who view that IT could help for knowledge sharing to be more effective. On the other side, this finding differs to Nunes et.al (2006) opinion that SMEs do not rely upon ICT as their knowledge management strategy. This is noticeable from the IT usage as the most frequently means to transfer explicit knowledge in the company. The owner's effort in shifting tacit to explicit is regarded as a risk managing strategy for the company. As the owner is aware of possible drawbacks that might arise if the tacit knowledge is not made explicit, he then codified his knowledge into manuals, website articles, and video instructions which can be accessed further by employees or anyone outside the company. The owner stated the following:

*'Yes, indeed it becomes a threat. That is why if you visit our website, there will be a link to YouTube video. It has been 3 episodes, and we cooperate with local TV station. Thus, from the written knowledge I made it recorded into digital video disk. But the educational level determines the acceptance of someone'*

As a result, the availability of explicit knowledge can help the company to ensure that its knowledge asset is accessible to anyone in the company. Another benefit to have explicit knowledge in the company is

to ensure that the company can access knowledge when tacit knowledge becomes obsolete or when the key people leaving the company and bring their knowledge with them. In other words, explicit knowledge is as just as important as tacit knowledge for the company, and any company needs to make explicit knowledge to become its organisational knowledge. This finding is in accordance with Du Plessis's (2007) belief that the absence of explicit knowledge in a company might inhibit the innovation process.

However, the explicit knowledge in the company has an obstacle in relation to knowledge utilization. Employees often find difficulties in understanding and utilizing this explicit knowledge. The owner argues that level of education might influence the knowledge acceptance of employees. As Riege (2005) mentions education level as one of barriers in KS in large companies, this aspect appears to have an effect on small firms as well. In contrast with this finding, the level of education in tacit knowledge sharing does not affect knowledge acceptance of employees. This is probably because of the expertise of the owner who knows how to address recipients, and find ways to suit them.

#### *B. What factors are important in knowledge sharing effectiveness in an Indonesian coconut SME?*

Absorptive capacity (or knowledge acceptance) from receivers would appear to be the most significant contributing factor for establishing an effective knowledge sharing process in this company. Szulanski (1996) claims that absorptive capacity is one of the attributes that is significant for sharing knowledge, and the result of this study has acknowledged his view. Since absorptive capacity is influenced by individual factors, it is important for the company to deal with this issue by providing facilitating support. It means that the company needs to have secondary sources for employees accessing knowledge. For instance, employees have access to text books or manuals to enrich their knowledge or the company can allocate time to have discussion session with employees.

The owner claims that employees' awareness to become self-learners determines the effectiveness of knowledge sharing. This result shows that the motivation of individuals play a significant contribution to the progress of knowledge sharing.

Reward also serves as an enhancing factor for knowledge sharing. This relates to employees' motivation to be actively involved in the knowledge sharing process. The more employees contribute to knowledge use, leading to innovation processes, the greater the reward they can achieve. As this company rewards its employees by shares (not on a salary basis), it indicates that a person can have more shares if he/she makes a greater contribution in the knowledge sharing and innovation processes.

This study also supports Riege's (2005) idea about SMEs' strength in knowledge enabling environment. This might be because the company has an informal environment. Thus, the differences (e.g. age, level of education, status) among employees do not create obstacles to share ideas and experiences, and presumably new knowledge could arise from this condition.

Another important factor in effective knowledge sharing process is patience. The owner explains that it takes a certain time to be able to comprehend knowledge. Hence, a continual effort is required to apply knowledge. Due to this reason, the owner suggests patience as an important factor in effective knowledge sharing. In relation to theoretical contribution, this aspect extends the Baptista Nunes et al. (2006) and Cavusgil et al., 2003 theory that argues if (tacit) knowledge requires effort and time to be transferred.

In addition, direct mentoring from the owner, who holds most of knowledge in the company, is seen as a preferable technique for knowledge sharing process. Direct mentoring provides guidance and supervision in drawing tacit knowledge from the source of knowledge. This can be perceived from the owner's statement, as he said: *'Yes, I feel that the direct mentoring is the most effective method to share knowledge. Even though I already provided them with instructional video and SOP, but at some extent they did not confident enough to do it. This is not only happen to people who have less formal education, but also for those who have tertiary education. I think this probably because they have a lack of achievement.'*

Therefore, this method implies that to be effectively shared, tacit knowledge requires continuous collaboration from both the knowledge contributor and receiver. It indicates that it is important to have people whose knowledge can guide the knowledge transfer within a company

#### C. Limitation of the Study

This research mainly concentrates on the practicality of knowledge sharing process and does not examine comprehensively the relationship between individuals e.g. trust among employees, motivation and retention to share knowledge. Because, addressing the interrelationship among individuals (e.g., motivation or retention to share knowledge ) would be more difficult in the limited time frame. Therefore this research focuses on the individual factor as well as the practicality of knowledge sharing in a company.

#### D. Recommendation for Future Research

Although much of the literature has discussed the importance of explicit knowledge as an asset to perform innovation, this research found that the explicit knowledge is not the preferred option for the SME to share knowledge. This study also found that the role of knowledge broker may well increase the effectiveness of knowledge sharing in SMEs.

Therefore, future research is required to further investigate factors that may contribute to the improvement of explicit knowledge sharing as well as the potential role of knowledge broker in SMEs.

#### E. Summary

Since knowledge serves as capital to conduct innovative activities, it is essential for SMEs to manage knowledge as one of its competitive advantage. Although tacit knowledge is a more preferable option for SME to share knowledge, but the presence of explicit knowledge needs to be considered as an important part in sharing knowledge strategy. SMEs also require facilitating knowledge management, and maximizing information technology as tools to enhance innovation towards knowledge sharing processes.

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