

## **The Role Of Knowledge Management On The Performance Of Coffee Company In Southeast Asian Countries: An Initial Meta-Analytic Review**

<sup>1</sup>Hendra Syahputra, <sup>2</sup>Edwar M Nur

<sup>1</sup>Ph.D Student of Management Science, Syiah Kuala University, Banda Aceh, Indonesia

<sup>2</sup>Universitas Abulyatama, Banda Aceh, Indonesia;

\*Corresponding Author: hsyahputra@gmail.com

### **Abstract**

The objective of this paper is to review some researches on knowledge management, business environment as well as competitive strategies applied in small and middle companies that will provide best practices for the improvement of performance of coffee processing company in ASEAN. This study consists of systematic reviews of 17 empirical scientific papers in regard to knowledge management, business environment, and competitive strategies that influence the performance of coffee processing company in ASEAN. Given the importance of the existence of coffee processing company in Indonesia, the application of knowledge management has to be prioritized by the concerned companies in order to accelerate their competitive advantages. This paper provides a better understanding on how to develop good knowledge management application, industry environment as well as strengthen the competitive strategies specifically in coffee processing company by learning from other sectors. The result of this study is believed to give worth understanding about actual situation in this field of research. It proposed some notions that will stimulate more intensive researches in this field in the future. However, there are no systematic literatures in academic journal that cover all the topics discussed in this paper.

**Key words:** Knowledge Management, Business Environment, Competitive Strategies Strategy, Coffee Industry, SMEs

### **Introduction**

Coffee ranks as the first most traded commodity in the world, outperform oil, with total sales of \$9 billion during 1999 and 2006. As a commodity coffee create new jobs for about 25 million people, filling about 400 billion cups each year with about 40 percent of the world's population is believed to consume coffee regularly (Kaplinsky, 2005). About 25 million families who derive their main income from this commodity are settled in developing countries (Potts, 2008). Coffee productions and its trading have an important role in most of families' life, even though the price had ever been drop in 1989 following the collapsed of International Coffee Agreement (ICA). The decline in price at that time is known as the biggest-ever coffee crisis in this world.

ASEAN is a major producer of coffee in the world and coffee products of a wide variety. Thus, coffee is one of leading export commodities that have a significant contribution for the national economy of ASEAN countries. Besides as a strategic commodity trading, coffee also has an important role as the source of foreign exchange, employment provider and the source of farmers' income or other economic actors whom are involved both on-farm and off-farm. Coffee processing companies also provide more jobs for million families and a decent income for them. Those companies are able to employ people from production, processing to marketing of the commodity.

The two largest coffee producer countries in this region are Vietnam and Indonesia where both are ranked as second and third in world biggest countries that produce coffee. With per-capita coffee consumption on the rise in this region, there is obvious room for further growth, but there is also an obvious need for investment. The capital required to take ASEAN's coffee industry to the next level presents appealing prospects for investors, while the countries' burgeoning coffee culture also brings opportunities for foreign exporters. At present, the principal destinations for ASEAN coffee are the US, Japan, China, Western Europe, and also for the fast-rising demand in the ASEAN region itself.

The coffee productions in ASEAN countries are mostly produced by smallholders and/or small and medium size enterprises (SMEs). Therefore the SMEs in coffee production play a crucial role in the ASEAN countries economy in terms of economic growth and providing employment. Thus, it is very important for those SMEs in this industry to continue competitive and sustain in today dynamic economy. The ongoing issues that limit production in this industry include limited knowledge of best practices, widespread use of low quality and uncertified planting materials and an abundance of older, less productive trees. These factors make the coffee production in ASEAN particularly prone to random changes and/or severe weather patterns.

Another key issue in the long-term survival of coffee industry in ASEAN is sustainability. To survive this important industry, especially in ASEAN, it is important to adopt a Knowledge Management (hereinafter abbreviated as KM) system since it is meaningful and strategic for that such organization. The core of knowledge-based view has to be understood to appreciate the value of knowledge for the company. The objects in this study are business units in coffee industry in ASEAN countries, a potential plantation commodity that is exported to the world market. This export commodity needs a well-managed knowledge commodity to compete in a tight competitive industry environment.

To explore existing literatures, this paper defines KM as a process and structure that is available in coffee industry in ASEAN to support a wide range knowledge of different processes, such as transfer, storage and creation. Actually, companies have to find ways to manage these aspects in a balanced manner, which presents particular challenges for SMEs because they usually lack of resources needed to produce full utilization over the stock of knowledge that they possess. Knowledge has become the most important strategic factor in the operations of cooperation (Spender, 1996) as it relates to the ability of the company to achieve competitive advantage (Teece, 2000). However, this does not mean that the appropriate approach to address issues of KM is not significant for the success of coffee industry unit in ASEAN. It may be just emphasized that an appropriate treatment for knowledge is a very important factor that determines whether a business will survive or not.

Since 2001, McAdam and Reid, said that KM is created and developed in large organizations to be applied in other types of community-based businesses, such as SMEs. But the question is, whether KM received full attention from actors in coffee industry sector?. Moved from that question, this paper would like how KM system takes place in a different business unit. Therefore, the business unit in coffee industry might adopt best practices from other business units. The purpose of this paper is to examine the problems and learn what had happened with KM in the coffee business units in ASEAN in the last ten years. This will help highlighting the current understanding of this topic and identify the existing gaps.

The objective of this paper is to review researches on KM in coffee processing company in Aceh Province to identify the gaps in the field and asses the future research activities and clarify other research areas which are no need to be studied in the future. According to the objective, some research questions are formulated as follows: Which KM topics have been researched and which topic have not been researched yet? What is the main finding in the research? What method is used in the research? How the research deal with particular challenge faced by SMEs related to KM?. In summary, this paper is arranged as follows: in section two, the literatures related to the research objectives are discussed, the third section describes the methods used to address the research problems, the next section presents the results of research, and at the end, presents the conclusions and implications of the study.

## **Literature Review**

### *Knowledge Management within Organization*

Knowledge is information combined with experience, context, interpretation, and reflection which is ready to apply to decisions and actions (Davenport et al., 1999) and KM is often defined as 'the management of organizational knowledge to create and retain greater value from the core business competencies and generate competitive advantage' (Klasson, 1999; Chong & Choi, 2005). In addition, KM is affected by the management of cultural, behavioral, operational, technological and organizational factors (Wong, 2008). Therefore, in a holistic sense, KM can be defined as the optimal management of a complex mixture of 'knowledge based system, artificial intelligence, software engineering, business process improvement, human resources management and organizational behavior concepts' (Liebowitz, 2000).

KM plays an important role as a dynamic dialectical element of various activities which are developed and experienced by organization. KM also extends significant contributions as the capitals for all of organization's members. The objective is to build organizational capacity through knowledge sharing interactions among organization's members in order to create the same deals. Thus finally it will creates knowledge conversion from tacit to explicit, vice versa, fundamentally and sustainably (Nonaka &

Takeuchi, 1995). KM in an organization also plays an important role in facing the challenges of complexity and the business environment turbulence in this sector. Business people, business entrepreneurs and even business units from small to large scale have to understand KM. This becomes one of the important issues that should be considered in order to keep the competition on track and to sustain good industry. A Competitive advantage is essentially derived from the value of a knowledge that is created for their customer's outweigh the costs they spent for creating that value (Porter, 1990). Furthermore, KM is the essence of an innovation and competition. One indicator of the occurrence of excellence strategy process in an organization is the knowledge and innovation those are generated in harmony by not rule out a thriving business environment. Moreover, to strengthen trade and investment of the coffee industry in this region, the knowledge management system in this industry must be technically and practically feasible.

The concept of KM as a focus of knowledge has been developed and became the focus of many organizations since 1995. Many organizations grapple with information overload. KM is becoming increasingly inseparable from the business function for many organizations as they realize that the competitiveness hinges is the effective management of intellectual resources (Grover and Davenport, 2001). If knowledge is decided to be the most important resource for the company, then obviously the need to secure existing resources should be the primary responsibility. Most of the delay in dealing with security management of knowledge is due to the misconception of securing knowledge which is considered the same as securing data and information. If the knowledge is a power and a source of competitive advantage (Salisbury, 2003), it is necessary to put special attention on it to ensure the sustainability and the repository of knowledge in the company to secure its core assets. Managing data, information and knowledge within the organization and use it to gain a competitive advantage in an organization has evolved in the field of KM. KM basically consists of processes and tools to capture and share data as well as using the knowledge of individuals within an organization effectively. The last decade has witnessed an explosion of information generated in the company because of the increased use of technology. The utilization of information and knowledge which is stored in the data warehouse is one of the methods to achieve the advanced industrial performance (Matusik and Hill, 1998). Companies that develop and utilize knowledge resources achieve greater success than companies that depend more on intangible resources (Autio et al., 2000).

In some other literatures reviewed the by authors, a variety of different approaches of KM are continue to grow, as research conducted by Wong and Aspinwall, 2004; Egbu et al., 2005; Hutchinson and Quintas, 2008. Nevertheless, it is true as asserted by Beesley and Cooper (2008) that a uniform definition of KM building is poor. Studies of KM has tended to focus on the processes and structures within the organization, such as transfer of knowledge from tacit to explicit, culture and organizational learning, and technologies for the storage and sharing of knowledge in order to improve productivity and sales, reduce costs, or improve innovation and quality (Kluge et al., 2001; Quintas, 2002; O'Dell, 2003; Edvardsson, 2011; Jashapara, 2011). As KM plays an important role in SMEs, the concern to establish and sustain good knowledge management practices in SMEs in order to ensure their competitiveness in the new business environment have to be raised (Hanzidc, 2006).

#### *Business and Industry Environment*

The business environment is strongly associated with a sustainable innovation. It takes serious concern for an organization's future, anticipating market changes, technology, competition and the presence of other products and services. Search results of some scientific reference studies on strategy and organizational performance tend to be expressed in the form of internal resource base of KM as a competitive advantage, which includes valuable, rare, difficult to imitate and hard to replace resources. Based on that view, some experts assess that KM is the most strategic resource that is owned by the company (Nonaka & Takeuchi, 1995; Tuomi 1999; Probst et al. 2000). Moreover, Sharkie (2003) state that the ability to manage KM is a management function that enables organizations to explore and develop sources of competitive advantage compared to its competitors, as well as creating a uniqueness that contributed to its successful in the future.

Ghani et al. (2010) studied the critical internal and external factors of business environment in Malaysia and found that external factors which become opportunities for companies are supported and encouraged by the government, and the threats are represented by bureaucratic procedures that companies must face to obtain various approvals and certifications. This bureaucratic procedures often being complicated processes that has to be faced by most of the companies. This led to the delay on the development of coffee processing unit in this region. Company has to create a more attractive and favourable business environment that will attract export-oriented investor (Jegathesan, 1996).

According to Jegathesan, this argument calls for governments to play the character of provider and initiator of a safe and favourable regulatory environment that provide suitable returns on investment.

The influence of industry environment is considered most significant for the stage of the life cycle of the industry on firm performance but not significant for other industry structural measures such as industry concentration, entry barriers and product differentiation (Robinson, 1998). Some researchers argues that industry structure is not too significant impact on the company performance. This is because company does not exist in a static environment. The industry environment will differ from one marke to the next (Sundqvist et al., 2000). Different industry environment will require different decision about strategic choice and implementation (Craven, 2000).

#### *Competitiveness and Competitive Strategy*

ASEAN countries have to realistically asses its competitive advantages in light of reduced government intervention and increasing integration into the global trade market. They future competitiveness will depend on an understanding of these new trade dynamics and on preparing themselves with well-functioning institutions that is transparent to increase competition. Increasing competition means that coffee producer countries in ASEAN need to seek more new markets and market channels thus likely to be very competitive in its core business: the coffee production and delivery. In a more industrialize commodity processes pursued by most coffee industry today, once an acceptable baseline quality standard is met, consistency and price are the key factors for competitiveness.

According to Porter (1998) competitive strategy is the search for a favorable competitive position in an industry, the fundamental arena in which competition occurs. The sustainability of this positional advantage requires that the business sets up barriers that make imitation difficult, because these barriers to imitation are continually eroding, the firm must continue to invest to sustain or improve the advantage. A firm's choice of competitive strategy will be dictated by its ability to create and sustain competitive advantage. Competitive advantage is the condition which enables a company to operate in a more efficient or otherwise higher quality manner than the companies it competes with, and which results in benefits accruing to that company (Bryson 1995).

Kergley (1990) carried studies in which they compared a set of companies which carried out strategic planning with those which did not using on sales value, sales and earnings per share, and net incomes as parameters. They concluded that companies which practiced strategic planning succeeded in a big way and posted better results than better performers than those that did not plan. David (2003) cited in Lawrence, (2011) argues that this is not to say that all companies that used strategic planning are necessarily successful. In case of small and medium companies, especially in coffee industry, they need to constantly improve their efficiency, reduce production cost and enhance their product reputation by investing in research and development, acquiring new technology, improving management practices, and effectively marketing their products to increase their competitiveness.

#### **Research Method**

This research adopted meta-analytic review since this method is proved to be the most concerned to the quantitative approaches the most suitable method in reviewing the similar researches. The meta-analysis also serves as a useful starting-point for further primary research into the relationship between business/industry environment and competitive strategy/competitiveness and the performance of organization because insights derived from existing studies are of pivotal importance for the development for future research guidelines.

According to Glass (1981), meta-analysis is a secondary analysis or reanalysis to a number of data to answer the research question using better statistical techniques or to answer new questions with new data. Borg (1983) stated that meta-analysis is a newest approach that developed to help researchers find the consistency and inconsistency of their cross studies.

The advantage of meta-analysis over the more traditional literature review is obviously that it contributes to summarizing relationships and indicators, comparing the effect of the use of different methods, and tracing factors that are responsible for differing results across studies. However, there are a number of (practical) difficulties and limitations as well.

We decided to use KM implementation in SMEs and coffee industry as the keywords. To answer the research questions, first, we established the inclusion and exclusion criteria. Inclusion criterions are: publications within 2000-2012 periods, empirical research paper, peer-reviewed, KM focus in general, English, and ASEAN countries. The papers which are published before 2001, the papers which are related to cooperation and regional cluster, grey literatures like reports and non-academic researches, another

language besides English, and non-ASSEAN countries represent exclusion criteria. As an additional, an excel data which consists of key aspects that related to research is produced. In the given case, among others: authors' name, publication year, research objectives, theoretical perspective/framework, method, and main findings.

The second is the search for appropriate articles. We used the keywords both "knowledge management and "KM" which is combined with SMEs and coffee industry and results 121 findings. The third is work out with abstract and, if relevance, will go further to the next section of the article to ensure that those articles are truly covers the scope that had been determined. The fourth, insert relevant data that related to research objectives into excel sheet, then working on the data entry and discuss the contents. In case of there are parts that might be passes to be read, the papers will be re-working through questions. This approach can diminish the likelihood that the analysis and the conclusion drawn might be inconsistent. Fifth, the final excel sheet is summarized that allows in categorizing the findings with the theme.

### Results and Discussion

With regard to the likelihood of analysis result in the research model, this will deliver an alternative condition as follow:

a) *Knowledge Management and its effect on the competitive strategy and the company competitiveness.*

Ghani et al. (2010) studied the critical internal and external factors of business environment in Malaysia and found that external factors which become opportunities for companies are supported and encouraged by the government, and the threats are represented by bureaucratic procedures that companies must face to obtain various approvals and certifications. This bureaucratic procedures often being a complicated process which has to be faced by most companies in developing countries like ASEAN. This led to the delay on the development of coffee processing unit in this region.

b) *Business environment and its effect on the performance of coffee industry in ASEAN*

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In addition, the influence of industry environment is considered most significant for the stage of the life cycle of the industry on firm performance but not significant for other industry structural measures such as industry concentration, entry barriers and product differentiation (Robinson, 1998). Some researchers argues that industry structure is not too significant impact on the company performance. This is because company does not exist in a static environment. The industry environment will differ from one marke to the next (Sundqvist *et al.*, 2000). Different industry environment will require different decision about strategic choice and implementation (Craven, 2000).

c) *Competitive strategy on the performance of coffee industry in ASEAN*

In case of coffee processing company as one of the small and middle enterprises form, knowledge management and industry environment do not play important roles in for their performance, because it rarely implemented in such those companies level.

However, according to the alternative condition above, the variables reflects that the SME is actually able to apply new knowledge within their firm.

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