

# STRATEGIC ORGANIZATIONAL KNOWLEDGE ORIENTATION AND FIRM PERFORMANCE: AN EMPIRICAL RESEARCH OF BEVERAGE BUSINESSES IN THAILAND

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**Abstract:** *As the primary constructive strategic advantage for an organization, significant observations have been logged recently for organizational knowledge as the most valuable strategic asset for an organization. This is likely to encourage creative new ideas leading to performance. Although the relationship between organizational knowledge and performance has been well-documented by earlier studies, a review of previous literature reveals that there are few studies on the dimensions of organizational knowledge viewed in terms of its consideration as a strategic asset. Therefore, this research aims to investigate the relationships between each dimension of strategic organizational knowledge orientation (SOKO), and its impact towards the consequence variables (organizational creativity, new idea generation, organizational innovation, business competitiveness and firm performance). The questionnaire survey method is used to collect the data from the managing directors or management partnership of 117 beverage businesses in Thailand. Regression results indicate that one dimension of SOKO (decision-making skills emphasis) is positively related to all of the consequence variables. However, each dimension of SOKO (emphasis business operation understanding focus, managerial information awareness, organizational experience usefulness, and environmental education dynamism) has partially direct effects on the consequence variables of SOKO. The contributions and suggestions for further research are also provided.*

**Keywords:** *Strategic Organizational Knowledge Orientation, Organizational Creativity, New Idea Generation, Organizational Innovation, Business Competitiveness, Firm Performance*

## 1. Introduction

The advent of the rapid pace of technology through the internet has brought about a dramatic change in the appropriate strategies utilized by organizations to adopt new ideas and innovations for restructuring and offering their customers improved products and services (Frels, Shervani and

Srivastava, 2003). The changing economy affects all firms, who must prepare to deal with an economy that is always evolving by adapting their organizations based on knowledge, which has become an important economic resource, leading to guaranteed long-term survival in a competitive market (Pârgaru, Gherghina and Duca, 2009). The beverage industry is an especially important element to stimulate economic development in the country, which is demonstrated by the amount of excise tax that exists in the beverage business, one of the five major goods sold in Thailand (The Excise Department, 2015).

Beverage business contribute to employment for many people, both in the beverage industry directly and in industries related to the manufacture of beverages, such as the manufacture of glass, cans, and bottles, including the agricultural industry that contributes the raw materials for the

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manufacture of beverages and beverage containers. Moreover, the current conditions of the beverage business are rife with intense competition. Further, the effect of major beverage multinational business is likely to expand investment in Thailand using preferential taxes under the ASEAN Free Trade Area (AFTA). Likewise, major operators in the alcoholic beverage business in Thailand will begin their penetration into the non-alcoholic beverages business, according to consumer behaviors that place importance on the health factor. In terms of management strategies, beverage businesses must adapt by focusing on strategic knowledge of the firm to enhance the ability on use that knowledge in creating innovation for drinks with exotic flavors and ingredients as well as having a positive impact on health, which could result in being able to compete more effectively in the beverage market (Deichert et al., 2006).

Nelson and Winter (1982) proposed the concept that organizational knowledge was developed from the ability to learn and by acquiring knowledge through day to day operations, information, and experience as well as the history of the organization. Organizational knowledge is the most valuable strategic asset for an organization, which can be used to build and maintain a sustainable competitive advantage, as well as to improve firm performance (Galende, 2006). More importantly, organizational knowledge encourages creative new ideas leads to productivity, innovation, and performance (Adams and Lamont, 2003). This can be clarified by the assumption of knowledge-based view (KBV), which is used to explain the relationship between the ability to develop and take advantage of knowledge resources in accordance with the goals of the organization by the firm that recognizes the value of such knowledge (Edvardsson, 2009). Forasmuch, knowledge is complex, tacit, and heterogeneous, and is more useful to obtain than raw materials, as it provides the driving force for competitiveness and

performance (Barney, 1991). The above-mentioned statement demonstrates the importance of organizational knowledge. It has become a topic of interest for researchers who study organizational perspectives (Amidon, 2006). However, they seem interested in the study of organizational knowledge that focuses on the meaning in terms of the knowledge management process within the organization specifically (Teece, 1998). This is applied to corporate strategy and serves as gaps in this research when combined with the importance of the beverage business in Thailand as mentioned above.

Thus, the author is interested in conducting research on organizational knowledge that can contribute to achieving the objectives of the organization effectively, also termed strategic organizational knowledge orientation (SOKO) in a beverage business context. The key objective of this research is to investigate the relationships between strategic organizational knowledge orientation and the firm performance of beverage businesses in Thailand via organizational creativity, new idea generation, organizational innovation, and business competitiveness as the mediators of the aforementioned relationship. The next section of this article is divided into five parts. The first part presents the literature review and the hypothesis development. The research methods are presented in the second part. The third section presents the results and discussion. The fourth part provides the theoretical and managerial contributions. The final section is comprised of limitations and suggestions for future research directions.

## 2. Literature Review

### - *Strategic Organizational Knowledge Orientation*

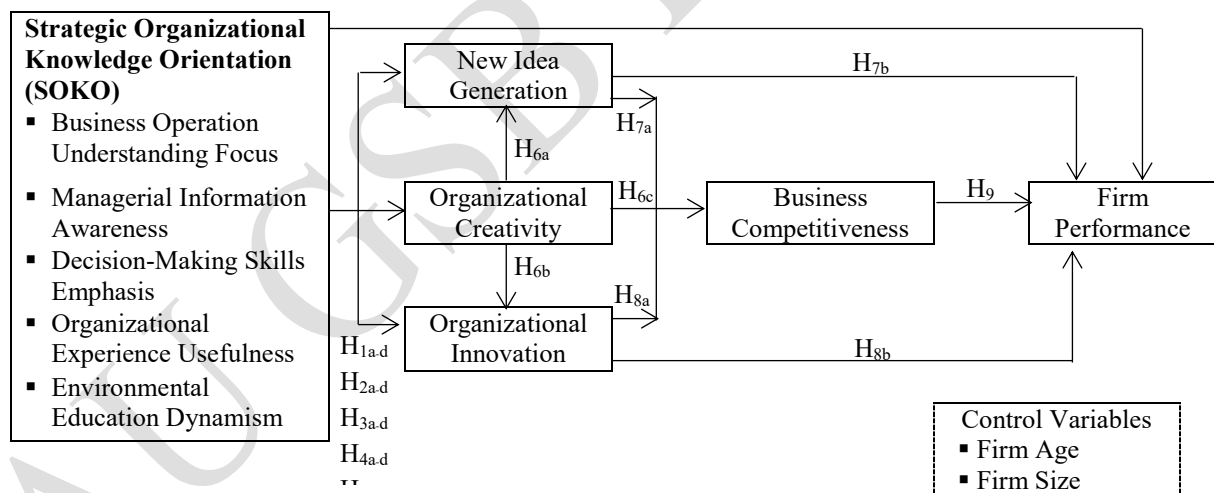
A review of previous literature found that organizational knowledge is important and has become a common topic of interest for researchers. Forasmuch, organizational

knowledge is one of the most valuable strategic assets for an organization that influences the ways that firms deal with dynamic environmental changes and maintain a sustainable competitive advantage (Grant, 1996). Moreover, Hall and Andriani (2003) suggested that both the explicit and tacit knowledge of an organization play a major role in innovation and the increased performance of the firm (Muneer et al., 2014). However, most researchers in the past focused their studies on the definition of knowledge management rather than strategic organizational knowledge (Teece, 1998). This represents a gap in knowledge and lacks of the studies focused on the topic of strategic organizational knowledge. From the importance and the gaps in this research, that the previous literature has not given a direct meaning of strategic

organizational knowledge orientation (SOKO).

Thus, it will be defined from the literature reviews. SOKO is defined as the potentiality of the organization in awareness, focusing on the utilization of learning from data and the events that have already occurred as well as those that are emerging in order to effectively achieve the objectives and goals of the firm (Maruta, 2014). Moreover, in this research, the dimensions of SOKO have been developed into its five dimensions: business operation understanding focus, managerial information awareness, decision-making skills emphasis, organizational experience usefulness, and environmental education dynamism. The conceptual linkage and research model present in the associations between SOKO and firm performance are shown in Figure 1.

**Figure 1**  
**Model of strategic organizational knowledge orientation and firm performance**



#### - Business Operation Understanding Focus

Organizational knowledge is embedded in the systems, processes, policies, procedures, and basic activities of the business (Teece, 2000). However, organizations need the ability to quickly perform the basic management of and have an awareness of the process of organizational work in order to increase the

value of their business assets (Byington and Chrisensen, 2005). Business operations are the daily activities within the organization (e.g. processing, monitoring, and data storage) to transform the resources or information into the services or products in order to deliver value to the customers. Thus, the employees need to understand the basic activities within the business process, or contribute to the application of them, for

the benefit of the organization. Business operation understanding focus in this research refers to the concentration on the recognition of the fundamental activities of a business that orient the value-added assets of the organization toward the achievement of the organization's goals (Byington and Chrisensen, 2005; Srichanapun, Ussahawanitchakit, and Boonlua, 2013).

A review of past literature found organizations that encourage an understanding of the production process, packaging and design of goods result in those organizations being able to produce high- quality goods and increase the performance of the firm (Morgan, Kaleka and Katsikeas, 2004) . Recognition of employees concerning their roles and responsibilities in manufacturing goods or providing services has led to the development of a sustainable environment for competition ( Schroeder, Bates and Juntilla, 2002) . Thus, the hypothesis is proposed as follows:

**Hypothesis 1:** *Business operation understanding focus will positively relate to (a) organizational creativity, (b) new idea generation, (c) organizational innovation, and (d) firm performance.*

- *Managerial Information Awareness*

Rad, Shams and Naderi (2009) stated that managerial information is business-related information that is collected, managed, distributed and utilized, leading to its application for the purpose of creating innovation and efficiency. Similarly, Nonaka and Takeuchi (1995) argue that information is the flow of data, but knowledge is made up of the flow of information under the belief and commitment that knowledge is connected to beliefs and contributes to action. In this research, managerial information awareness refers to the realization of the firm to understand the importance of business data. They must advocate the accumulation and utilization of business data in order to enhance organizational

innovation and be able to respond to customer demands more appropriately than their competitors (Rad, Shams and Naderi, 2009; Chaikambang, Ussahawanitchakit and Boonlua, 2012).

A review of past literature found that information in corporate management is the integration of information related to the business ( Letza, Sun, and Kirkbridge, 2004), and the sharing of this framework among people in the organization. The information is data that describes the situation underlying the beliefs, expectations, truths, and views used in business operations (Stiglitz, 2000). The organization needs to have the ability to recognize the information that is important for innovation, and use it to achieve a competitive advantage ( Kristandl and Bontis, 2007). Moreover, the application of information technology will lead to new ideas that benefit the organization (Thong, 2001) . Therefore, the hypotheses are proposed as follows:

**Hypothesis 2:** *Managerial information awareness will positively relate to (a) organizational creativity, (b) new idea generation, (c) organizational innovation, and (d) firm performance.*

- *Decision-Making Skill Emphasis*

Decisions are considered to be knowledge resulting from skills that is used to choose an alternative by a person in the organization; or, it is knowledge gained through their practices and that is embedded into the organization ( Cabrera and Cabrera, 2005). They use it in order to meet the needs of customers and to operate smoothly. Correct decision- making is a result of a systematic process, with elements of clarity that are managed within a defined set of procedures ( Drucker, 1967). Competitive advantages in business are a direct result of effective decision-making ( Brock and Russell, 2009) . In addition, improvement of the decision-making process can solve business problems more efficiently and be the key to

superior business performance ( Walker, 2001). In this research, decision-making skill emphasis is defined as the realization of the ability to build expertise in deliberately identifying and choosing alternatives to solve business problems more efficiently and effectively ( Walker, 2001; Brock and Russell, 2009; Schoenfeld, 2011).

The review of past literature found that when the organization has the skills to make decisions in business that will cause the performance to be improved, it results in higher quality products, and realizes production costs that are lower (Paiva, Roth and Fensterseifer, 2008) . Environments where competition is high results in people in the organization who must make decisions more quickly when resolving issues, by compensating for the implementing of rules and regulations as a hierarchy (Drucker, 2008). It also results in employees who are forced to make many decisions to solve business problems efficiently (Van Vugt, Hogan and Kaiser, 2008) . This accumulation of knowledge and skills by decision-making leads to the creation of products that are difficult to imitate and have a sustainable competitive advantage (Paiva, Roth and Fensterseifer, 2008). Hence, the hypotheses are proposed as follows:

**Hypothesis 3:** *Decision-making skill emphasis will positively relate to ( a) organizational creativity, ( b) new idea generation, (c) organizational innovation, and (d) firm performance.*

- *Organizational Experience Usefulness*

The knowledge or experience of an organization is a factor that contributes empowerment to business operations and it is a major source of competitive advantages (Zollo and Winter, 2002). The creation of organizational knowledge can be achieved by clearly accumulating the experience of individuals and groups and the sharing of knowledge between each of them. Therefore, it is an experience that can only

be accessed by members of the organization and can also be stored in the organizational memory, to be taken advantage of later (Zollo and Winter, 2002). In this research, organizational experience usefulness refers to a firm's ability to understand and utilize the advantages and shortcomings of past events or practices, which will provide the most benefit to the organization ( Singh, 2012) . When a company is able to experience the influence of the competition, it will lead to more efficient operations and better quality compared to its competitors (Singh, 2012).

The review of the literature of the past found that learning from the experience of manufacturing and service firms has a positive, direct effect on market performance and an indirect effect on firm performance through market performance ( Emden, Yaprak and Cavusgil, 2005) . Apart from this, Choe (2004) finds that learning and organizational experience have a moderating effect on the relationships between the provision of information and performance improvement. Furthermore, the application of organizational experience may be the foundation for creativity ( Amabile, Hadley and Kramer, 2002), and innovation which then leads to increased performance (Morgan, Wardy and Bartonz, 2004). Thus, the hypotheses are proposed as follows:

**Hypothesis 4:** *Organizational experience usefulness will positively relate to ( a) organizational creativity, ( b) new idea generation, (c) organizational innovation, and (d) firm performance.*

- *Environmental Education Dynamism*

Environmental education is the mastering that increases the knowledge and awareness of the dynamic changing environments ( internal and external) through acquiring, assimilating, transforming and exploiting existing knowledge, which leads to the generation of new knowledge, innovation, and creativity ( Bartosh, 2003) . In the review of past

literature, it was found that strategic knowledge in the form of the ability to accumulate and position the organization improves the competitiveness of businesses (Rosenzweig and Roth, 2004). This will allow companies to anticipate and respond to environmental changes (Badri, Davis and Davis, 2000). Besides, the creation of new knowledge causes interoperability using specific knowledge (explicit and tacit) as a tool to make operations more efficient. It is a dynamic interaction with society and the environment (Cook and Brown, 1999). Knowledge is embedded in social interaction and relationships within the organization (Bhatt, 2001). According to the view of Cook and Brown (1999), knowledge is created through a process of interaction with the world community and the environment. In this research, environmental education dynamism refers to adjustments in the learning of organizations with a focus on analyzing opportunities, caused by changes in both external and internal organizations, and leading to the adaptation of the continuing organization (Bartosh, 2003; Pothong and Ussahawanitchakit, 2011).

The review of the literature of the past found that organizations that can be considered as dynamic may result in the organizational capability of innovation, positively improving performance and effectiveness (Damanpour, Walker and Avellaneda, 2009). Firms that benefitted from service-based competitive advantage, compared to their rivals (such as, product line breadth, technical support, higher product flexibility, and delivery speed) achieved better performance levels (Morgan, Wardy and Bartonz, 2004). Therefore, the hypotheses are proposed as follows:

**Hypothesis 5:** *Environmental education dynamism will positively relate to (a) organizational creativity, (b) new idea generation, (c) organizational innovation, and (d) firm performance.*

#### *- Organizational Creativity*

Creativity is the striving to do better, or the attempt to forge the connection between the notions and emotions of the individuals in the organization via the relationships between them, leading to initiatives that benefit the organization. This suggests that creativity is one of the most important abilities of the organization, since it is the source of the effectiveness of the firm (Grewal, Levy and Kumar, 2009). This research focuses on organizational creativity by integrating the definition that it is the overall ability of a firm to support the concept and is aimed at inspiring novelty (Taggar, 2002). From the definition of organizational creativity discussed above, it is the creation of new products that are useful, and procedures or new ideas resulting from the collaboration of employees within the organization. Creativity is a key factor in solving problems and difficulties through the inspiration of the communication process and the development of ideas that will lead to innovation (Shalley and Gilson, 2004). Shalley, Zhou and Oldham (2004) state that creativity is also major factor in the development of new ideas in order to produce new procedures and practices in an organization output's of goods and services and is an obvious benefit to the firm.

In addition, some of the empirical research has also suggested that employees who are creative are likely to satisfy the needs of customers through innovative ideas, leading to the creation of superior performance (Grewal, Levy and Kumar, 2009). And most importantly, the creativity of individuals is considered as a basis for organizational creativity and innovativeness (Shalley and Gilson, 2004). This also shows that organizational creativity and innovation can lead to a performance that is better than that of competitors (Bharadwaj and Menon, 2000). This is due to the fact that organizational creativity, as a creative process, is difficult to imitate and it is a source of competitive advantages (Basadur, 2001). Thus, based

on literature above, it leads to hypotheses as follows:

**Hypothesis 6:** *Organizational creativity will have a positive influence on (a) new idea generation, (b) organizational innovation, and (c) business competitiveness.*

*- New Idea Generation*

The generation of new ideas is a major requirement for the company to continue to build products to meet the market demand and build customer satisfaction that leads to market performance (Thipsri and Ussahawanitchakit, 2009). New idea generation is recognized as important as it influences the effectiveness and the ability to drive continued market success, because it is a key factor in solving business problems efficiently. Grandi and Grimaldi (2005) defined new idea generation as an organization's ability to create new processes for effectiveness and efficiency, by focusing on new idea generation regarding business processes such as procurement, operations, marketing and sales, customers and after-sales services (Brown, 2008). This research is focused on the relationships in terms of the processing steps or operations of the firm, because this is socially complex, and initiates and leads to a sustainable competitive advantage (Barney, 1991).

The review of the literature of the past found a significant trend in the positive relationship between product ideas and competitive advantage, by studies mostly focused on the idea that products must be new or different from existing products (Koberg, Detienne and Heppard, 2003), and that they are more than the concept of new production processes. For example, Calantone, Cavusgil, and Zhao (2002) stated that the new concepts in faster shipping to customers (logistics), lead to the development of the organization's competitiveness. Besides this, a method to produce a product that conforms to the engineering design leads to saving costs on

production or acquisition of diverse goods, and higher quality to build continuous customer satisfaction (Zhang, Vonderembse and Cao, 2009). Thus, based on literature above, it leads to hypotheses as follows:

**Hypothesis 7:** *New idea generation will have a positive influence on (a) business competitiveness, and (b) firm performance.*

*- Organizational Innovation*

The ability of the firm to adapt and cope with increased awareness of the value of products based on innovation helps to increase opportunities for products of the organization, as well as to meet the needs of customers (Lyon and Ferrier, 2002; Sandvik and Sandvik, 2003). Likewise, new products which are outstanding or unique lead to customer satisfaction, achieve marketing success and maintain the competitive advantages necessary to take advantage of new opportunities in the development of new products or services for the market (Tajeddini, 2010). Besides, organizational innovation that is responsive to the needs of customers in terms of products or services allows the organization to capture new markets for increased sustainable competitive advantage (Damanpour, 2010), and enhances its competitiveness and profitability (Leskovaar-Spacapan and Bastic, 2007). In this research, organizational innovation refers to the ability of an organization to increase value or to develop new products or services, leading to the satisfaction of continued customer demand (Garcia and Calantone, Cavusgil, and Zhao, 2002).

Recent research indicated that the positive relationship between innovation, company growth, and performance results from the ability to introduce new methods and innovation within the organization (Mansury and Love, 2008). This is an important and necessary attribute which enhances company success in the long term (Noble, Sinha, and Kumar, 2002). Furthermore, the view of the KBV is aimed

at analyzing organizational innovation, resulting from the application of knowledge in the creation and development of innovations that lead to organizational competitiveness (Fraj, Matute and Melero, 2015), and is positively related to firm performance (Jiménez-Jiménez and Sanz-Valle, 2011). Therefore, based on literature above, it leads to hypotheses as follows:

**Hypothesis 8:** *Organizational innovation will have a positive influence on (a) business competitiveness and (b) firm performance.*

*- Business Competitiveness*

In the review of past literature, competitiveness is defined in a variety of ways, such as the ability to produce goods that are better or services that are more efficient than competitors. Competitiveness that remains a key goal is defined as the setting up of business policies, because competitiveness is the ability to conduct business better than one's competitors in terms of cost, price, quality, innovation, and image. As a result, that firm can be in a superior market position among competitors (Pungboonpanich, Ussahawanitchakit and Ieamvijarn, 2010). The studies on competitiveness have received attention from researchers in terms of strategic management as a factor in the success of the organization (Lu and Beamish, 2004), which is viewed in terms of the results achieved in the long-term that are relative and dynamic (Man, Lau and Chan, 2002). Fahy (2000) indicated that the success of the organization in the attainment of superior market position is caused by an ongoing competitive advantage that quickly leads to superior corporate performance or profitability. Likewise, Neely (2005) found a correlation between the competitiveness and performance of organizations as measured by revenue, value-added market share, sales, profits, and the growth of their products.

The evidence found in empirical research, such as that of Prempre, Ussahawanitchakit and Boonlua (2013), argues that business competitiveness is positively correlated with firm value. Singh (2012) also indicates that competitiveness contributes to the increased performance of the company or the rise of an organization's quality over its rivals, leading to increased benefits for the company. Past studies suggest a relationship between competitiveness and firm performance. On the basis of the literature review and the proposed research framework above, a significant trend is demonstrated, leading to the hypotheses as follows

**Hypothesis 9:** *The business competitiveness will have a positive influence on firm performance.*

### **3. Research Methods**

*- Sample Selection and Data collection Procedure*

This research selects beverage businesses, which conduct the production of beverages within Thailand and are registered with the Department of Industrial Works, as the sample. The population was obtained from the list found on the online database of Thailand's industrial directory of the Department of Industrial Works, Ministry of Industry of the Thai government as of March 2015 (<http://www.diw.go.th>, accessed March 15, 2015). The questionnaires were directly distributed to 634 recipients by being mailed to a systematic random sampling from the list, of which the total of the successful questionnaire mailing was 557 surveys, from which 120 responses were received. A total of 77 of the questionnaire-mail surveys were undeliverable due to the fact that some business had moved to unknown locations or discontinued operations. The remaining 117 valid and complete questionnaires were used for the quantitative analysis. The effective response rate was approximately 21.01 percent. According to Aaker, Kumer and



Day (2001), the response rate for mail surveys, without an approximate appropriate follow-up procedure, if greater than 20 percent, is considered acceptable. In addition, the two tests—using objective data on respondents and non-respondents indicated that non-response bias was not a concern (Armstrong and Overton, 1977).

*- Reliability and validity*

Table 1 shows the results for both factor loadings and Cronbach's Alpha for multiple-item scales used in this research.

All factor loadings are 0.505-0.912 and are greater than the cut-off score of 0.4, which indicates the acceptable construct validity (Hair et al., 2010). In addition, the Cronbach's Alpha coefficients for all variables are shown to be between 0.730 and 0.850, which is greater than 0.70 as recommended by Kline (2005). Accordingly, these measurements are deemed appropriate for further analysis because they express an accepted validity and reliability.

**Table 1:** Results of measure validation

Constructs	Factor Loadings	Cronbach's Alpha
Business Operation Understanding Focus (BOU)	0.656-0.790	0.754
Managerial Information Awareness (MIA)	0.505-0.812	0.730
Decision-making Skills Emphasis (DMS)	0.557-0.792	0.750
Organizational Experience Usefulness (OEU)	0.662-0.912	0.802
Environmental Education Dynamism (EED)	0.614-0.846	0.808
Organizational Creativity (OC)	0.745-0.805	0.785
New Idea Generation (NI)	0.692-0.852	0.749
Organizational Innovation (OI)	0.578-0.907	0.756
Business Competitiveness (BC)	0.773-0.878	0.823
Firm Performance (FP)	0.717-0.874	0.850

*- Statistical Technique*

Statistical techniques are used in this research and include descriptive statistics, including mean and standard deviation, which are used to summarize and describe the basic features of the data. Pearson's product-moment correlation techniques analysis is used to test the correlations among all variables. The regression analysis is conducted in order to statistically estimate the coefficient of hypotheses testing. The established

research models are demonstrated as follows:

$$\text{Equation 1: } OC = \alpha_1 + \beta_1 BOU + \beta_2 MIA + \beta_3 DMS + \beta_4 OEU + \beta_5 EEO + \beta_6 FA + \beta_7 FS + \varepsilon_1$$

$$\text{Equation 2: } NI = \alpha_2 + \beta_8 BOU + \beta_9 MIA + \beta_{10} DMS + \beta_{11} OEU + \beta_{12} EEO + \beta_{13} FA + \beta_{14} FS + \varepsilon_2$$

$$\text{Equation 3: } NI = \alpha_3 + \beta_{15} OC + \beta_{16} FA + \beta_{17} FS + \varepsilon_3$$

**Equation 4:**  $OI = \alpha_4 + \beta_{18}BOU + \beta_{19}MIA + \beta_{20}DMS + \beta_{21}OEU + \beta_{22}EEO + \beta_{23}FA + \beta_{24}FS + \varepsilon_4$

**Equation 5:**  $OI = \alpha_5 + \beta_{25}OC + \beta_{26}FA + \beta_{27}FS + \varepsilon_5$

**Equation 6:**  $BC = \alpha_6 + \beta_{28}OC + \beta_{29}NI + \beta_{30}OI + \beta_{31}FA + \beta_{32}FS + \varepsilon_6$

**Equation 7:**  $FP = \alpha_7 + \beta_{33}BOU + \beta_{34}MIA + \beta_{35}DMS + \beta_{36}OEU + \beta_{37}EEO + \beta_{38}FA + \beta_{39}FS + \varepsilon_7$

**Equation 8:**  $FP = \alpha_8 + \beta_{40}NI + \beta_{41}OI + \beta_{42}BC + \beta_{43}FA + \beta_{44}FS + \varepsilon_8$

#### 4. Results and Discussion

Table 2 shows the descriptive statistics and correlation matrix for all variables. The

results show a significant correlation between 0.361 and 0.784,  $p < 0.01$ . This evidence suggests that there are intercorrelations among the independent variables which are less than 0.80 as recommended by Hair et al. (2006). In addition, Variance inflation factors (VIF) range from 1.086 to 3.470, well below the cut-off value of 10, meaning that the independent variables are not correlated with each other (Hair et al., 2006). This is shown in Table 3 and Table 4. Therefore, there are no multicollinearity problems in this research.

**Table 2:** Descriptive statistics and correlation matrix

Variables	BOU	MIA	DMS	OEU	EEO	OC	NI	OI	BC	FP	FA
Mean	4.096	4.043	4.147	4.030	4.060	3.891	3.571	3.417	3.680	3.728	N/A
SD	.577	.541	.536	.633	.634	.674	.761	.785	.717	.681	N/A
<b>MIA</b>	.628**										
<b>DMS</b>	.504**	.605**									
<b>OEU</b>	.556**	.602**	.624**								
<b>EEO</b>	.639**	.697**	.623**	.589**							
<b>OC</b>	.630**	.661**	.625**	.623**	.660**						
<b>NI</b>	.478**	.546**	.560**	.429**	.621**	.628**					
<b>OI</b>	.346**	.457**	.461**	.397**	.470**	.553**	.784**				
<b>BC</b>	.361**	.456**	.528**	.366**	.517**	.543**	.731**	.784**			
<b>FP</b>	.399**	.445**	.484**	.389**	.504**	.592**	.632**	.579**	.775**		
<b>FA</b>	0.034	-0.104	0.028	-0.021	-0.090	-0.086	-0.063	-0.033	-0.079	-0.099	
<b>FS</b>	.233*	0.116	0.129	0.019	.197*	0.166	0.133	0.117	0.046	0.121	.213*

\*  $p < 0.05$ , \*\* $p < 0.01$

#### - Hypothesis Testing and Results

Table 3 shows the results of the influence of SOKO on the four consequences, namely organizational creativity, new idea generation, organizational innovation, and firm performance.

Firstly, business operation understanding focus has an effect on organizational creativity, new idea generation, organizational innovation, and firm performance in Hypotheses 1a-d ( $\beta_1 = 0.207$ ,  $p < 0.05$ ,  $\beta_8 = 0.073$ ,  $\beta_{18} = -0.040$ ,  $\beta_{33} = 0.067$ ;  $p > 0.10$ , respectively). This result, according to prior research, suggests that recognition of employees in organizations, regarding their roles and responsibilities pertaining to manufacturing goods or

services and the understanding of strategies, leads to organizational creativity (Mumford, et al., 2002). Moreover, business operation understanding focus contributes to the application of knowledge for the benefit of the organization (Byington and Chrisensen, 2005). Contrarily, these results are inconsistent with Morgan, Kaleka and Katsikeas (2004), who found that the organization that encourages understanding of the business process leads to increased firm performance. Nevertheless, a firm needs to understand which knowledge is beneficial to it and use that knowledge to enhance work efficiency. If the firm is not able to understand such knowledge, it is not useful for work efficiency (Brockbank, 2004).

**Therefore, Hypothesis 1a is supported but Hypotheses 1b, 1c and 1d are not supported.**

Secondly, managerial information awareness has an impact on organizational creativity, new idea generation, organizational innovation, and firm

performance in Hypotheses 2a- d ( $\beta_2 = 0.181, p < 0.10, \beta_9 = 0.127, \beta_{19} = 0.171, \beta_{34} = 0.063; p > 0.10$ , respectively). This result, according to prior research, suggests that the application of information technology within the organization will lead to the

**Table 3: Results of regression analysis**

Independent Variables	Dependent Variable			
	Model 1 OC	Model 3 NI	Model 6 OI	Model 10 FP
	H1a-H5a	H1b-H5b	H1c-H5c	H1d-H5d
<b>Direct Effect</b>				
Business operation understanding focus (BOU)	.207** (.087)	.073 (.102)	-.040 (.117)	.067 (.114)
Managerial information awareness (MIA)	.181* (.095)	.127 (.112)	.171 (.127)	.063 (.125)
Decision-making skills emphasis (DMS)	.196** (.087)	.264** (.102)	.205* (.117)	.254** (.114)
Organizational experience usefulness (OEU)	.183** (.087)	-.062 (.102)	.071 (.117)	.014 (.114)
Environmental education dynamism (EED)	.155 (.097)	.354*** (.114)	.198 (.130)	.235* (.127)
<b>Control Variables</b>				
Firm age (FA)	-.146 (.126)	-.060 (.149)	-.017 (.169)	-.176 (.166)
Firm size (FS)	.106 (.129)	.010 (.153)	.083 (.174)	.074 (.170)
Adjusted R <sup>2</sup>	.578	.413	.239	.271
Maximum VIF	2.578	2.578	2.578	2.578
*p < 0.10, **p < 0.05, ***p < 0.01				

creativity of that organization ( Madjar, 2005) . However, these results are inconsistent with some studies that suggested the ability of the firm' s managerial information systems in providing adaptability or predictability to the management leads to ideas for context

capturing and treatments of the process or system of the organization ( Petrevska, Poels and Manceski, 2014) . **Thus, Hypothesis 2a is supported but Hypotheses 2b, 2c, and 2d are not supported.**

Thirdly, decision- making skills emphasis has an influence on

organizational creativity, new idea generation, organizational innovation, and firm performance in Hypotheses 3a-d ( $\beta_3 = 0.196$ ,  $\beta_{10} = 0.264$ ;  $p < 0.05$ ,  $\beta_{20} = 0.205$ ,  $p < 0.10$ ,  $\beta_{35} = 0.254$ ,  $p < 0.05$ , respectively). This is consistent with the work of Paiva, Roth and Fensterseifer (2008) who found that decisions made by skills to choose alternatives and knowledge through employees' practices in the organization leads to the creation of new products that are difficult to imitate. Likewise, explicit knowledge-sharing had a significant effect on innovation speed and financial performance, while tacit knowledge-sharing had a more significant effect on innovation quality and operational performance (Wang and Wang, 2012). Furthermore, the organization has the skills to make decisions regarding the business that will result in improved performance and production costs that are lower (Morgan, Wardy and Bartonz, 2004). **Therefore, Hypotheses 3a, 3b, 3c and 3d are supported.**

Fourthly, organizational experience usefulness has an effect on organizational creativity, new idea generation, organizational innovation, and firm performance in Hypotheses 4a-d ( $\beta_4 = 0.183$ ,  $p < 0.05$ ,  $\beta_{11} = -0.062$ ,  $\beta_{21} = 0.071$ ,  $\beta_{36} = 0.014$ ;  $p > 0.10$ , respectively). These results are consistent with Amabile, Hadley and Kramer (2002), who found that the application of organizational experience positive impacts organizational creativity. On the other hand, Emden, Yaprak and Cavusgil (2005) expressed contrasting results and found that there was no

relationship between learning from experience and the firm's financial performance. Experience is knowledge that has limits to replicate efficiently because learning possesses potential bias in compliance. **Hence, Hypothesis 4a is supported but Hypotheses 4b, 4c, and 4d are not supported.**

Finally, environmental education dynamism has an impact on organizational creativity, new idea generation, organizational innovation, and firm performance in Hypotheses 5a-d ( $\beta_5 = 0.155$ ,  $p > 0.10$ ,  $\beta_{12} = 0.354$ ,  $p < 0.01$ ,  $\beta_{22} = 0.198$ ,  $p > 0.10$ ,  $\beta_{37} = 0.235$ ,  $p < 0.10$ , respectively). The results imply that the information exchange with the external environment has influences on idea generation (Cummings and O'Connell, 1978). Furthermore, firms that benefitted from a service-based competitive advantage, compared to their rivals, achieved better performance levels (Gimenez and Ventura, 2002). Conversely, these results are inconsistent with Damanpour, Walker and Avellaneda (2009) who argue that organizations that can be qualified as dynamic may result in the organizational capability of improving innovation. Likewise, Yu and Ramanathan (2013) found that environmental dynamism had no direct effect on operations strategy. Thus, employee competence, such as good creativity and improving innovation was based on quality and flexible strategies. **Thus, Hypotheses 5b and 5d are supported but Hypotheses 5a and 5c are not supported.**

**Table 4:** Results of regression analysis

Independent Variables	Dependent Variable			
	Model 5 NI	Model 8 OI	Model 9 BC	Model 12 FP
	H <sub>6a</sub>	H <sub>6b</sub>	H <sub>6c</sub> , H <sub>7a</sub> , H <sub>8a</sub>	H <sub>7b</sub> , H <sub>8b</sub> , H <sub>9</sub>
<b>Direct Effect</b>				
Organizational creativity (OC)	<b>.621***</b> (.075)	<b>.550***</b> (.080)	.091 (.072)	-
New idea generation (NI)	-	-	<b>.261**</b> (.096)	<b>.213**</b> (.098)
Organizational innovation (OI)	-	-	<b>.536***</b> (.090)	<b>.205*</b> (.108)
Business competitiveness (BC)	-	-	-	<b>.771***</b> (.098)
<b>Control Variables</b>				
Firm age (FA)	-.033 (.150)	.020 (.161)	-.049 (.114)	-.100 (.119)
Firm size (FS)	.067 (.152)	.047 (.163)	-.122 (.115)	.183 (.120)
Adjusted R <sup>2</sup>	.379	.289	.644	.613
Maximum VIF	1.086	1.086	3.021	3.470
*p< 0.10, **p< 0.05, ***p< 0.01				

Table 4 shows the results of the influence of organizational creativity, new idea generation, organizational innovation, business competitiveness and firm performance. Firstly, organizational creativity has an effect on new idea generation, organizational innovation, and business competitiveness in Hypotheses 6a-c ( $\beta_{15} = 0.621$ ,  $\beta_{25} = 0.550$ ;  $p < 0.01$ ,  $\beta_{28} = 0.091$ ,  $p > 0.10$ , respectively). This result, according to previous research by Shalley and Gilson (2004), suggests that the creativity of an individual employee is considered the basis for creativity and innovation in a firm. Likewise, creativity is confirmed as a process that results in novel and useful ideas in any domain (Amabile et al., 1996), caused by the collaboration of a group or organization aimed at generating ideas for application to the work of the firm (Wrzesniewski, Dutton and Debebe, 2003). Moreover, Mumford et al. (2002) suggest a positive correlation between creativity and innovation. On the contrary, these results

are inconsistent with some studies that suggested the organizational creativity mechanism will lead to a better performance than competitors (Bharadwaj and Menon, 2000). **Therefore, Hypotheses 6a and 6b are supported but Hypothesis 6c is not supported.**

Thirdly, organizational innovation has an impact on business competitiveness and firm performance in Hypotheses 8a-b ( $\beta_{30} = 0.536$ ,  $p < 0.01$ ,  $\beta_{41} = 0.205$ ,  $p < 0.10$ , respectively). The finding suggest that organizational innovation, resulting from

the application of knowledge in the creation and development of innovations, leads to a sustainable competitive advantage (Yang, Zheng and Viere, 2009), and an increase of sustainable competitive advantage (Fraj, Matute and Melero, 2015). Besides, innovation and the technological capability to generate products and processes can also lead to superior company performance (Camisón and Villar-López, 2014). Moreover, organizational innovation is positively related to firm performance (Kalkana, Bozkurtb and Armanc, 2014). **Accordingly, Hypotheses H8a and 8b are supported.**

Finally, business competitiveness has an effect on firm performance in Hypotheses 9 ( $\beta_{42} = 0.771, p < 0.01$ ). This finding suggests that competitiveness contributes to the increased performance of the firm (Singh, 2012). Likewise, the success of the market position is caused by the ongoing competitive advantages that quickly lead to superior corporate performance or profitability (Fahy, 2000). Furthermore, Wiklund and Shepherd (2005) suggest a positive relationship between competitiveness and firm performance. **Thus, Hypothesis H9 is supported.**

For the control variables, the relationships among organizational creativity, new idea generation, organizational innovation business competitiveness and firm performance are not impacted by firm age and size firm size.

## 5. Contributions

### - Theoretical Contribution

This research provides three contributions. Firstly, it proposes five dimensions of SOKO, namely, business operation understanding focus, managerial information awareness, decision-making skills emphasis, organizational experience usefulness, and environmental education dynamism. Secondly, they are examined for the first time in a Thai context, the results of which relate to the antecedent variables, each dimension of SOKO, and its

consequence variables. Lastly, this research attempts to gain a clear understanding of the relationship between each dimension of SOKO and its consequences by applying the principal theoretical frameworks of KBV to explain the relationships.

### - Managerial Contribution

This research can help executives in management departments of beverage businesses to emphasize how their firms can achieve firm performance over their competitors. Executives need to focus on leveraging organizational knowledge as a necessary factor to establish and maintain continuous business competitiveness. Furthermore, executives must create an understanding of the processes within the organization for employees and encourage employees to have participation in decision-making, which leads to increased capability to compete and cope with the situations that arise within the firm as well.

## 6. Limitations and Suggestions for Future

### - Limitations

This research has some limitations that should be mentioned. Firstly, the results of this research examined the specific context of the non-alcoholic beverages business, which includes a particular business type. Thus, the results of this research may be narrow and lack the generalized concepts necessary for use in describing the contexts of all beverage businesses in Thailand. Secondly, some variables in this research have been developed as a new scale based on the definition of each construct, and a new measurement. Accordingly, the results may be impacted by inappropriate measurements caused by using these scales. Finally, the findings ought to be considered as only exploratory in nature since a cross-sectional survey might not adequately capture a longitudinal phenomenon, such as measuring variables that are dynamic in nature (environmental education dynamism).

### - Suggestions for Future Research

The results and limitations of this study indicated an obvious requirement for further research. Firstly, in- depth interviews and focus group discussions, involving the top managers from each beverage company, should be conducted to create and confirm the validity of the variable measurements and relationships of this new research model. Secondly, other techniques, such as a structural equation model should be employed to test each of the five dimensions for a clear explanation of both the direct and indirect effects and the consequences. Thirdly, future research should develop longitudinal data sets and/or mixed methods designed to observe SOKO in new dimensions. The data may be collected over consecutive years, pass through in- depth interviews and extract factors with factor analysis in order to acquire new dimensions of SOKO. Finally, this research suggested a new theoretical framework to examine the beverage businesses in Thailand. Sample groups from other industries or countries should also be studied to better understand and validate the results obtained here.

### 7. Conclusion

This article analyzes the relationship between the dimensions of SOKO and firm performance. The results in this article show a strong positive correlation between emphasis on decision-making skills, which is one dimension of SOKO, organizational creativity, new idea generation, organizational innovation, business competitiveness and firm performance. The suggestion is that the problem- solving skills and decision-making abilities of the personnel within an organization are elements of organizational knowledge and key to creating innovation. Due to the decision- making skills that emerge from the experience of thinking to solve problems in business, new concepts, methods and innovations to solutions are raised in addition to more efficient business operation. As mentioned, the executives of

beverage businesses in Thailand should aim to build decision- making skills in their workforce, which is the most important dimension of SOKO. In addition, executives should pay more attention and encourage personnel to learn and adapt to a continuously changing environment. This will enable organizations to develop new concepts and processes for the business model to meet customer demands and lead to higher performance.

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