

Print ISSN: 2288-4637 / Online ISSN 2288-4645
doi:10.13106/jafeb.2021.vol8.no9.0249

The Impact of Intellectual Capital on Knowledge Management Processes in Thailand

Ploychompoo KITTIKUNCHOTIWUT¹, Kumpanat SIRIYOTA²

Received: May 30, 2021 Revised: August 08, 2021 Accepted: August 15, 2021

Abstract

This research explores the effects of intellectual capital on knowledge management processes (creation of information, knowledge sharing, and use of knowledge) and innovation performance. The data was gathered from 224 fashion accessories in Thailand using a questionnaire. The population was collected on December 16, 2019 (<https://www.ditp.go.th>) from a list database of the Department of International Trade Promotion, Ministry of Commerce of Thailand (2019). A questionnaire mail survey technique was used to collect data. Executives or managers were the key participants in this study. The statistical technique used to analyze is the ordinary least square regression. The findings show that intellectual capital has a significant positive effect on information management systems. Likewise, information management techniques have a significant positive effect on innovation performance. Moreover, increasing the use of information tends to make staff willing to use the knowledge to improve the quality and quantity of the service. This tendency contributes to productivity gain. Through the interaction of processes of information use, self-reflection, and input from customers, employees tend to increase the production of knowledge that eventually develops the results of the innovation. Hence, organizations should value knowledge management process elements to improve efficiency, and thus innovation.

Keywords: Intellectual Capital, Knowledge Creation, Knowledge Sharing, Knowledge Utilization, Innovation Performance

JEL Classification Code: O31, O34, L11

1. Introduction

Knowledge has been considered a strategic tool, and as such it must be handled to promote the organization's competitive performance. Therefore, one would assume that for companies to be efficient, they must use their information assets methodically (Bolisani & Bratianu, 2017). In Thailand, like other organizations, the Department of International Trade Promotion is trying to survive and grow on the market, and is functioning to build strategic to achieve its objectives. In today's changing world, some

radical changes in the political, social, and economic aspects affect international trade.

Nonetheless, 21st-century businesses are mostly motivated on fashion accessories and are driven by technology and the Internet economy. At the moment, they concentrate more on developing and executing concepts, and innovation will rely on successful intellectual capital (IC). It will also rely on the knowledge, as any invention involves the increase of new knowledge as both an input (e.g. new ideas, concepts, prototypes, etc.) and an outcome (e.g. generated novelty). Therefore, both intellectual capital (IC) and information are key innovation enablers in firms. In this paper, we discuss innovation development from the intellectual capital (IC) perspective and the knowledge pools it creates for the business.

While authors in the past (Kang et al., 2012; Minbaeva, 2013; Minbaeva et al., 2009; Swart & Kinnie, 2013) described intellectual capital integration (IC) and knowledge perspective as a key issue with significant potential, it remains underdeveloped. There is, in particular, a lack of work covering both intellectual capital (IC) and expertise as a backdrop to corporate innovation.

¹First Author and Corresponding Author. Assistant Professor, Mahasarakham Business School, Mahasarakham University, Thailand [Postal Address: Kantarawichai District, Muang City, Maha Sarakham Province, 44150, Thailand]
Email: ploychompoo.k@acc.msu.ac.th

²Instructor, Khonkaen Business School, Khon Kaen University, Thailand. Email: skumpa@kku.ac.th

Similarly, the interaction between intellectual capital (IC) and knowledge management processes (KMP) regarding innovation has been analyzed empirically by few studies (Cabello-Medina et al., 2011; De Winne & Sels, 2010; Jiang et al., 2012; López-Cabrales et al., 2009; Wang & Chen, 2013). The intellectual capital (IC) considered in these studies appears to be insufficiently adjusted to enhance the information processes of companies. This lack of research highlights the need for further studies on the relationships between intellectual capital (IC), processes of knowledge management (KMP), and performance in innovation. The goal of this paper is to fill this gap.

Specifically, we have developed a conceptual model that 1) identifies key elements for innovation in intellectual capital (IC), 2) suggests key processes for knowledge management (KMP), and 3) examines the impact of intellectual capital (IC) on knowledge management processes (KMP) and innovation performance. We argue that innovation in companies is largely empowered by knowledge management processes (KMP) (López-Cabrales et al., 2009; Minbaeva, 2013), including knowledge creation handling, knowledge sharing, and use of information.

In addition, we propose that all of this intellectual capital (IC) affect the knowledge management processes (KMP) of a company that represents the intangible value-generating resources of the firm, including the expertise and motivation of its staff, external relations, and knowledge found in information systems, records, and databases. Such components of intellectual capital (IC) in turn affect the performance of the company's innovation. Ultimately, intellectual capital (IC) and knowledge contribute to creativeness by expanding the knowledge base of the enterprise and stimulating information growth (De Winne & Sels, 2010; López-Cabrales et al., 2009).

2. Literature Review

In the 21st century global economy, it will be a dynamic, demanding, and knowledge-based challenge to increase the economic value of organizations and increase sustainable competitive advantage (Halawi et al., 2005). The resource-based view (RBV) has become one of the best-accepted theories of strategic management, integrating capital and skills as an important and inevitable source of sustainable competitive advantages and higher levels of firm success (Battisti & Deakins, 2017; Braganza et al., 2017; Ferreira & Fernandes, 2017).

Therefore, a sustainable competitive advantage is likely to be the source of strategic capabilities and resources (El Shafeey & Trott, 2014). Barney (1991, 1995, 1986), Barney & Arkan (2001), Barney & Clark (2007) provided a theoretical structure of the company's resource-based view (RBV) to understand sustainable competitive advantage sources. This theoretical framework involves four key

elements to maintain a sustainable competitive advantage (El Shafeey & Trott, 2014). In fact, the first major element of the company resource-based view (RBV) needs to start with these two assumptions: the company's resources could be immobile and heterogeneous while assuming that some of these resources are expensive to duplicate or that there is not enough supply of them (Barney, 2007). The second main element of the resource-based view (RBV) is that a company is incorporated with intangible and tangible resources that are achieved by them to enable it to think and implement strategies created to increase the effectiveness of the company (Barney & Clark, 2007).

Moreover, tangible assets are no longer regarded as the basis of competitive advantage. In today's business community, drawing on intellectual capital is more important (Halawi et al., 2005). The resource-based view (RBV) is that specific resources and talents are critical factors in achieving long-term competitive advantages (Amit & Schoemaker, 1993; Barney, 1986; Mahoney & Pandian, 1992; Rumelt, 2003; Wernerfelt, 1984). The firm's RBV is a research flow that possesses three similar, but also different thought disciplines: the firm's resource-based view (RBV), the firm's view of dynamic capability, and the firm's view of competence.

Also, several scholars believe that these three views are one thinking discipline, all of which have the same conceptual structure (El Shafeey & Trott, 2014). It's not just resource-based when it comes to resource-based philosophy. Rather, it concerns the attributes that need resources if they are a source of sustainable competitive advantage (Barney & Clark, 2007). Barney and Clark (2007) demanded that not all of a company's resources have retained competitive advantage potential because different types of resources can have different competitive effects on the businesses. To have this kind of potential, an organization must have 4 key qualities in its resource; (V) important, (R) uncommon, (I) imperfectly imitable, and (O) organization. Such four attributes' first letters establish the VRIO structure. Competitive position, as for the fourth main element, is the way to sustain a competitive advantage.

In addition, for an organization to have a competitive advantage, it must produce additional economic value in its product market than the marginal competitor "break-even" (Peteraf & Barney, 2003). The main theory behind competitive advantage is to calculate the amount of success and number of accomplishments compared to the competitors of the organization. The amount of success can be calculated in different ways, the main one being the skill to create economic value. Economic value has to do with the variations in the benefits that the buyer perceives they can get and the cost that the company endures in producing their goods or services for the customer (Ong & Ismail, 2008). Porter (1985) has theorized that relying too much on

organizational efficiency in strategic positioning makes for negative rivalry.

Furthermore, businesses see the importance of knowledge management processes from a perspective of experience if they are to remain competitive and develop. As a result, many businesses everywhere are beginning to handle their expertise and creativity dynamically. Several researchers have pointed out that information management has made substantial use of the approach of the enterprise.

Static organizational information can be managed by knowledge management using a holistic approach that involves the development, configuration, organization, recovery, sharing, and assessment of an enterprise's knowledge assets (Hong et al., 2008).

According to Dyer and Nobeoka (2000), in an early adoption phase, companies tried to implement knowledge management activities. These activities included documenting and recording all business processes for acquiring explicit knowledge and acquiring tacit knowledge through intellectual discourse. Knowledge management activities were carried out through a separate unit, and knowledge management support mechanisms were implemented. Also, the information management concept is basically to manage information using a knowledge management processes and systematic approach that starts from knowledge exploration to new knowledge creation. With regard to the concept of creating knowledge, many organizations and institutions are increasingly concerned with offering and using powerful knowledge-building tools. As a result, information-intensive companies are participating more in tools to build awareness (Kaba & Ramaiah, 2017).

Moreover, the resources empower academic institutions to link faculty members and promote the exchange of knowledge, learning, and retention of knowledge (Kaba & Ramaiah, 2017). This means that the use of knowledge-building tools is a pillar of research into knowledge-building that is critical to developing knowledge management within an enterprise (Kaba & Ramaiah, 2017). By using this knowledge, an organization's intellectual assets can be used to increase productivity, enhance competitiveness, and gain new value (Choi, 2000).

2.1. Intellectual Capital

Management literature has used the idea of intellectual capital (IC) in recent decades to explain how information operates as a key asset for organizations that creates value. Intellectual capital (IC) refers to the possession of information, practical experience, organizational technology, customer relationships, and professional skills that provide a company with a competitive edge in the market. In other words, intellectual capital (IC) is the sum of all the tools that an entity uses to create value that is intangible and linked to information.

Authors in the field, however, a critical part of the knowledge and skills needed for innovation resides with and is used by individuals. Since the development of new knowledge involves some degree of existing knowledge (De Winne & Sels, 2010), the skills and expertise of employees are important predictors of organizational innovation. Also, creative and professional workers are more likely to develop new and innovative concepts Anand et al. (2007) or challenge current practices and function as agents of organizational change (Amabile, 1997).

Besides, structural capital, also referred to as organizational capital, comprises all non-human storehouses of organizational expertise (Bontis et al., 2000) collected and dispersed by organizational structures, procedures, frameworks, and manuals (Youndt & Snell, 2004). It is the information that stays with an organization when employees leave (Youndt & Snell, 2004). This stock of institutionalized expertise and codified experience will increase creativity as the production of new goods, processes or methods usually involves the combination and implementation of various established information components (Fleming & Sorenson, 2004). Therefore, having developed an "organizational memory" (Walsh & Ungson, 1991) would help companies recognize and integrate all the relevant bits of information they have produced or acquired in the past and need to deliver the desired innovation.

Furthermore, established structures, standards, and routines support the systematic documentation and knowledge retention that organizations can use to produce and test new ideas continuously (Nonaka & Takeuchi, 1995). ICTs also stimulate creativity by allowing information discovery, retrieval, storage, transfer, analysis, and dissemination (Alavi & Leidner, 2001). Structural capital, in short, promotes innovation by establishing a (collective) framework within an enterprise for knowledge creation activities. Relational capital is one of the three primary components of intellectual capital and is the value inherent in a business's relationships with its customers, vendors, and other important constituencies. Relational Capital is a sub-category of intellectual capital focusing on the intangible value present in the relations an organization has with business partners and other external parties that contribute to fulfilling the company's needs and also includes elements like corporate reputation and customer potential (Nonaka & Takeuchi, 1995). Relational capital contributes to innovation because not all the requisite expertise to innovate is within the limits of an organization (Nonaka & Takeuchi, 1995).

2.2. Knowledge Management Processes

Knowledge management is a discipline and function in which knowledge is created, acquired, shared, codified, and used through an enabling environment to increase innovation and organizational performance (Andreeva & Kianto, 2011).

Knowledge management has two main components: knowledge management environment and knowledge management processes. In fact, the most important component is the knowledge management process that builds knowledge and survives regardless of formal knowledge management organizational support (Andreeva & Kianto, 2011). This research, therefore, focuses on it. Different studies define the processes of knowledge management in various ways. At the risk of being oversimplified, the knowledge management process contains of knowledge acquisition, knowledge development, knowledge transfer, knowledge storage, and application of knowledge (Andreeva & Kianto, 2011).

In addition, an organizational concept of knowledge management processes, however, is the process of creating knowledge, sharing knowledge, and using knowledge. The reason for the difference is that the meanings vary but are cynically related in their degree of process aggregation. In short, as explained by Andreeva and Kianto (2011), information management requires three or four primary processes. Information management ensures the proper flow of information by two coding and personalization approaches. Also, in an organization, knowledge management processes occur naturally irrespective of whether a formal knowledge management processes charter has been developed or not (Wee & Chua, 2013). The importance of contemporary organizations utilizing knowledge management processes is demonstrated within academic literature publications (Daud et al., 2010). Several authors of these publications believe that having the ability to generate information is important for an organization (Nonaka & Takeuchi, 1996; Von Krogh, 1998).

Bollinger and Smith (2001) also found that information management is both a process and a target group. We claimed that the main objective of knowledge management systems was to support the company by sharing knowledge as an aim and outcome. Regulation is not the key strategic resource of knowledge management systems, but rather its communication and information sharing. In fact, academic scholars have recognized that social activities constitute processes of information management and promote the collection of knowledge and individual knowledge as well as the engagement of individuals (Alavi & Leidner, 2001; Lucas & Ogilvie, 2006). Knowledge resources social and human capital is a subsidizing factor in which operations are carried out. That's why the company needs to decide which initiatives will be funded. We must also agree on the right organizational technologies and variables to allow them to do so.

Besides, the knowledge management process is founded on the ability of members of an organization to make their essential business processes more valued by creating, communicating, coordinating, and codifying tactical and explicit provisions on knowledge (Nonaka & Takeuchi,

1995). Nonaka and Takeuchi (1995) believed that the stream of transitional knowledge begins with socialization and then goes on to outsource, combine and then internalize. Also, raw experience is the point of departure for transitional knowledge that mains to understanding, categorizing, and ultimately creating private mental models that go beyond this experience and provide new knowledge. Tseng (2010) made it clear that knowledge management processes have three main components, each illustrating the role of top management. The first dimension is how the information tools an appropriate knowledge used in the knowledge management strategy shape strategic growth.

2.3. Knowledge Creation

The creation of knowledge is a mechanism in which new knowledge is generated continuously through the four sub-processes of organizational knowledge creation theory (Andreeva & Kianto, 2011; Collins & Smith, 2006; Nonaka & Takeuchi, 1996). Socialization, synthesis, outsourcing, and internationalization are the four mechanisms (Collins & Smith, 2006; Nonaka & Takeuchi, 1995). These processes' background is a chance, motivation, ability, and greater perceived importance. To ensure awareness building, organizations essential to focus on these antecedents (Andreeva & Kianto, 2011; Shu et al., 2012).

2.4. Knowledge Sharing

Information sharing is a donation and information gathering among the various units of knowledge in business (Becerra-Fernandez et al., 2004; Nonaka, 1994). The transfer of their experiences is the behavior of employees (Hooff & De Ridder, 2004). It can be divided into elements of information formal vs. informal and donation vs. selection (Hooff & De Ridder, 2004; Taminiou et al., 2009). Sharing knowledge is more important than creating knowledge, as the majority of information remains in an employee and is of no value until it is communicated and implemented (Al-Husseini & Elbeltagi, 2015).

Moreover, there are intrinsic and extrinsic rewards, social and organizational norms, corporate principles, and sustenance for top leadership (Hsu et al., 2007). Knowledge sharing is characterized as the degree of intra-organizational cooperation, together with the exchange of documents, news ideas, learned things, and other relevant information (Bontis & Serenko, 2009; Anel et al., 2020). When present, knowledge has been recognized or new knowledge has been generated, information sharing is fulfilled. This particular sub-process is considered to be the core process of knowledge management processes, as one of the main objectives of knowledge management processes practice and research is to foster the knowledge stream among the organization's

members (Chua, 2004). By doing so, it adds value and creates new opportunities to endure the organization's competitive advantage.

Correspondingly, Bartol and Srivastava (2002) described knowledge management processes as a social exchange throughout the organization or department where employees provide each other with relevant organizational information such as suggestions, expertise, and ideas each employee has. Explicit and tacit knowledge is shared between employees both informally and formally (Holste & Fields, 2010). There are information management systems at the organizational and individual levels (Lin, 2007).

2.5. Knowledge Utilization

Lee et al. (2013) mentioned that the use of knowledge is also referred to as the use of information or intelligence. It is about reacting to various types of information within an organization that a particular person has. Knowledge utilization is an application of knowledge that has been shared (Song et al., 2005). It is newly created information that becomes part of a problem-solving mechanism and organizational behavior by assimilation (Chen et al., 2012).

2.6. Innovation Performance

Success in innovation defined from two perspectives: conventional and knowledge-based. Within traditional literature, there are many concepts of creativity available. For example, innovation is evolving and applying new and novel customer satisfaction goods, services, and internal organizational processes (Meroño-Cerdán & López-Nicolás, 2017). The operational concept, however, is the introduction of novel products in terms of features and use, and the implementation of new consumer problem-solving processes to meet stakeholders' daily dynamic needs. Additionally, a model of a competitive innovative economy is based on a combination of two main elements of the innovation system: human development and the business sector (Raushan & Zhansaya, 2015). In this analysis, this definition implies two dimensions for the construction: product and creativity that solves problems for the consumer.

However, intellectualizing innovation from a knowledge-based viewpoint adds nothing to the innovation model for empirical investigations because knowledge-based innovation is operationalized by findings like the number of new products launched in recent years (Du Plessis, 2007). This conceptualization therefore only introduces the development and implementation of information as to its counterpart leading to the new products and processes. Therefore, at the risk of literature being oversimplified, information-based innovation is the development and

application of expertise to create new knowledge about new products and consumer processes (Du Plessis, 2007).

3. Research Framework

The study suggested that it is necessary to develop an acceptable theoretical framework to represent the context in which the study was conducted. In this report, the theoretical framework illustrates the important influence of intellectual capital, processes of knowledge management, and success in innovation. Based on the theoretical framework, the hypothesis was developed to examine the relationship among Thailand's fashion accessories between actual intellectual capital (IC), knowledge management processes (KMP), and innovation results. According to the context and review of the literature, is presented in Figure 1.

4. Research Methods

This study applied standardized survey questions which made measure data collection as all respondents were asked the same questions. Standardizing respondents' questions removes prejudice (Alreck & Settle, 2004). It was assumed that using a survey approach would allow the researcher to obtain a sufficient number of respondents within the budget and resource constraints and minimize non-response bias. Also, the questionnaire for the survey consists of four sections.

In fact, the population was collected on December 16, 2019 (<https://www.ditp.go.th>) from a list database of the Department of International Trade Promotion, Ministry of Commerce of Thailand. A questionnaire mail survey technique was used to collect data. Executives or managers were the key participants in this study. Concerning the mailing of the questionnaire, 13 surveys were undeliverable because some companies were no longer in business or moved to unknown locations. Also, the correct mailing was 422 surveys, from which 232 replies were received, deducting the undeliverable from the original 435 mailed. Just 224 were available of the surveys completed and returned. The effective response rate was about 53.08%. According to (Aaker et al. 2001), a response rate of more than 20% for a mail survey is acceptable without a reasonable follow-up method.

Besides, by comparing early and late responses, a non-response bias test was performed. Company characteristics include industry types, amount of capital funding, business time, number of employees, and key informants who self-reported all buildings (Armstrong & Overton, 1977). *T*-test statistical tests were conducted for non-response bias and the results showed no significant differences. Therefore, there is no concern regarding non-response bias in this data.

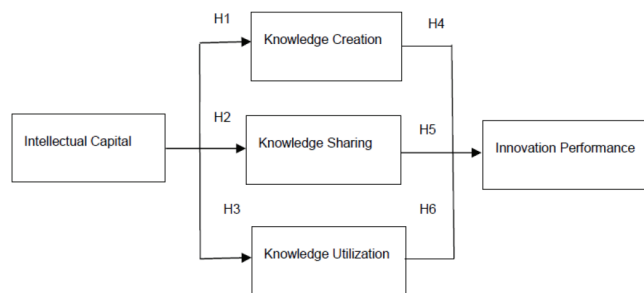


Figure 1: Framework of the Study

4.1. Measurements

The instrument of the survey is a multi-item measure. All variables were calculated using a 5-point Likert scale. Key informants were asked to agree on the levels with item statements ranging from 1 (strongly disagree) to 5 (strongly agree). The items were specifically developed for this study from the existing scales of each variable.

4.1.1. Intellectual Capital

Three represented stocks of intellectual capital (human capital, structural capital, and relational capital), and one represented an innovation. As (Hair et al., 2017) pointed out, in social science research, estimating is more realistic than thinking that a definition can be thoroughly assessed by a set of metrics and an error term.

Moreover, using an international panel of experts, we measured the material quality of the scales and incorporated their suggestions. From previous literature, we adapted measures for the categories of intellectual capital and discussed them with the panel. Based on the observations of Bontis et al. (2000) and Yang and Lin (2009), we built the scale for human capital and adapted the scales for systemic and relational capital from Kianto et al. (2010).

4.1.2. Knowledge Management Processes

Several studies have been talking about information management systems. We break information management systems knowledge management processes. Knowledge management stems from a management theory that uses a process-based view of what companies need to handle (Lee & Lee, 2007). This means that knowledge management processes encompass all of the techniques, tools, and strategies used in a holistic approach to support core knowledge processes, such as knowledge generation, knowledge sharing, and knowledge use resulting from knowledge recognition and knowledge goals at all levels

and areas of an organization (Heisig & Vorbeck, 2001). In fact, the current study used a five-point Likert scale to assess each construct of information management processes. The calculation of information management processes used in the analysis was developed and validated by Heisig & Vorbeck (2001).

4.1.3. Innovation Performance

We adapted innovation performance measures by Weerawardena, (2003) during this study, businesses need to use certain measurement indices to recognize the performance of innovation. The review can take into account input (the resources used for the process), the process of innovation itself, (innovation outcomes).

4.1.4. Control variables

Firm age and firm size were the control variables. The company's age was measured by the number of years it has been in an operation. The organization size was measured by the number of employees in businesses that are currently full-time licensed. Previous research has shown that both control variables can influence a business's ability to function for success (Zhou & Li, 2007).

5. Results

In this study, factor analysis is used to study the construct validity of several constructs in the conceptual model that has been developed as scales. Factor analysis was used to assess the basis of a large number of items and to determine whether they could be reduced to a smaller set of factors. All factor loadings are higher than the rule-of-thumb 0.40 cut-off and are statistically significant (Nunnally & Bernstein, 1994).

Moreover, Cronbach's alpha coefficient was used to evaluate the measurement of reliability. Cronbach's alpha coefficients are higher than 0.70 (Nunnally & Bernstein, 1994). Therefore, scales of all measures are shown to result in consistency. So, these measures are considered appropriate for further analysis because they show the validity and reliability that have been recognized in this study. The result shows factor loadings and the Cronbach's alpha coefficient for multiple item scales used in this study in Table 1. Table 1 presents all variables that have factor loading scores between 0.728 – 0.863. Additionally, Cronbach's alpha for all variables is shown between 0.716 – 0.762. As a result, all constructs of measurement validity and reliability can be used for further study.

Table 2 presents the descriptive statistics and correlation matrix for all variables. With respect to

Table 1: Results of Measure Validation

Items	Factor Loadings	Cronbach's Alpha
Intellectual capital (IC)	0.728–0.863	0.700
Knowledge creation (KC)	0.763–0.840	0.721
Knowledge sharing (KS)	0.803–0.843	0.761
Knowledge utilization (KU)	0.790–0.860	0.762
Innovation performance (IP)	0.812–0.835	0.716

Table 2: Means, Standard Deviations

Variables	IC	KC	KS	KU	IP	FA	FS
Mean	11.986	4.163	4.123	4.126	4.099	3.080	2.727
S.D.	1.914	0.606	0.629	0.634	0.654	1.129	1.336
IC	1						
KC	0.272**	1					
KS	0.217**	0.441**	1				
KU	0.462**	0.235**	0.200**	1			
IP	0.131	0.218**	0.232**	0.178**	1		
FA	0.100	0.003	0.022	0.090	0.001	1	
FS	0.097	0.046	0.017	0.101	-0.018	0.445**	1

*** $p < 0.01$; ** $p < 0.05$; and * $p < 0.10$ Indicates significant at 1%, 5% and 10% level of significance.

potential problems relating to multicollinearity, variance inflation factors (VIFs) were used to provide information on the extent to which non-orthogonality among independent variables inflates standard errors. The VIFs range from 0.001 to 0.462, well below the cut-off value of 10 recommended by Neter et al. (1985) meaning that the independent variables are not correlated with each other. Therefore, there are no substantial multicollinearity problems encountered in this study.

Ordinary Least Squares (OLS) regression analysis is a multiple regression analysis. It is the appropriate way to test the hypotheses in which the variables are categorical and interval data. Table 3 represents the OLS regression analysis results on the relationship between intellectual capital, knowledge creation, knowledge sharing, and knowledge utilization. First, intellectual capital has a significant positive effect on knowledge creation ($\beta = 0.021$, $p < 0.01$). Thus, hypothesis 1 is verified. Second, intellectual capital has a significant positive effect on knowledge sharing ($\beta = 0.002$, $p < 0.01$). Thus, hypothesis 2 is verified. Third, intellectual capital has a significant positive effect on knowledge utilization ($\beta = 0.020$, $p < 0.01$). Hence, hypothesis 3 is verified.

These findings are consistent with previous knowledge development and task efficiency studies (Gomez, 2007) and productivity and innovation outcomes (Ramezan, 2012). Thailand's fashion accessories necessitate a higher level of customized item delivery. This responsibility necessitates staff interaction with information formation activities on a continuous basis. Knowledge growth, which includes self-reflection, customer reflection, and interaction with knowledge management systems, allows knowledge workers to be more an effective and perform better in terms of innovation.

Moreover, increasing the use of information tends to make staff willing to use the knowledge to improve the quality and capacity of the service. This tendency contributes to productivity gain. Through the interaction of processes of information use, self-reflection, and input from customers, employees tend to increase the production of knowledge that eventually an improves the results of the innovation. There have been good findings with respect to the forecast, which is shown by an estimated measurable and optimistic direction towards SCA. Significant findings between KMP and SCA also confirm the findings of previous studies (Bogner & Bansal, 2007; Bou-Llugar & Segarra-Ciprés, 2006; Gupta &

McDaniel, 2002; Leitch & Rosen, 2001; Lubit, 2001; Mcevily & Zaheer, 1999; Zack, 1999). The study's findings contribute to the knowledge management process and sustainable competitive advantage theory and business practices. This research has many important theoretical consequences for academics. The results confirm the validity of the study's underlying theories namely resource-based view (RBV) and knowledge-based view (KBV). The findings support those hypotheses to be used.

Table 4 shows the results of the OLS regression analysis. First, knowledge creation has a significant positive effect on innovation performance ($\beta = 0.071, p < 0.01$). Thus, it verifies hypotheses 4. Second, knowledge sharing has a significant positive impact on innovation performance ($\beta = 0.068, p < 0.01$). Therefore, it verifies hypotheses 5.

Third, knowledge utilization has a significant positive impact on innovation performance ($\beta = 0.069, p < 0.01$). Thus, there is support for hypothesis 6. Companies that are constantly changing achieve their primary competitive advantage by generating and maintaining information through the productivity of their workers (Battisti & Deakins, 2017).

6. Discussion and Conclusion

The main conclusions drawn from this study refer to the key role intellectual capital affects knowledge creation, knowledge sharing, and knowledge utilization. Knowledge creation, knowledge sharing, and knowledge utilization have an effect on innovation performance. Data on 224 knowledge executives or managers in managerial positions were acquired from Thailand's fashion accessories.

The practical implication of the study is that the intellectual capital and knowledge management process still have an overarching role over two other emerging approaches. Because this study proposes that it is the knowledge creation, knowledge sharing, and knowledge utilization effect of knowledge management processes on innovation performance of knowledge management, which is the innovation, in the knowledge-based economy. Hence, organizations should value knowledge management process elements to improve their productivity, and thus innovation. Furthermore, market orientation, knowledge-sharing, innovation, managerial capability, product

Table 3: Results of Regression Analysis

Independent Variable	Dependent Variable		
	Knowledge Creation (KC)	Knowledge Sharing (KS)	Knowledge Utilization (KU)
Constant	3.149*** (0.264)	3.269*** (0.278)	2.218*** (0.254)
Intellectual capital (IC)	0.086*** (0.021)	0.072*** (0.022)	0.151*** (0.020)
Firm age (FA)	-0.022 (0.039)	0.001 (0.041)	0.013 (0.038)
Firm size (FS)	0.017 (0.033)	-0.002 (0.035)	0.022 (0.032)
Adjusted R^2	0.063	0.034	0.206

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.10$; ^aBata coefficients with standard errors in parenthesis.

Table 4: Results of Regression Analysis

Independent Variable	Dependent Variable Innovation Performance (IP)		
	Constant	3.128*** (0.322)	3.124*** (0.308)
Knowledge creation (KC)	0.238*** (0.071)		
Knowledge sharing (KS)		0.242*** (0.068)	
Knowledge utilization (KU)			0.187*** (0.069)
Firm age (FA)	0.010 (0.043)	0.004 (0.042)	0.001 (0.043)
Firm size (FS)	-0.018 (0.036)	-0.013 (0.036)	-0.018 (0.036)
Adjusted R^2	0.036	0.042	0.020

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.10$; ^aBata coefficients with standard errors in parenthesis.

strategy, process and service improvement, resources capability can an increase performance (Setyani et al., 2020).

References

- Alavi, M., & Leidner, D. E. (2001). Review: knowledge management and knowledge management systems: Conceptual foundations and research issues. *Management Information Systems Quarterly*, 25(1), 107–136. <https://doi.org/10.2307/3250961>
- Al-Husseini, S., & Elbeltagi, I. (2015). Knowledge sharing practices as a basis of product Innovation: A case of higher education in Iraq. *International Journal of Social Science and Humanity*, 5(2), 182–185. <https://doi.org/10.7763/ijssh.2015.v5.449>
- Alreck, P. L., & Settle, R. (2004). *Survey research handbook* (3rd ed.). New York: McGraw-Hill Education.
- Alton Yeow-Kuan Chua. (2004). Knowledge management system architecture: A bridge between KM consultants and technologists. *International Journal of Information Management*, 24(1), 87–98. <https://doi.org/10.1016/j.ijinfomgt.2003.10.003>
- Amabile, T. M. (1997). Motivating creativity in organizations: On doing what you love and loving what you do. *California Management Review*, 40(1), 39–58. <https://doi.org/10.2307/41165921>
- Amit, R., & Schoemaker, P. J. H. (1993). Strategic assets and organizational rent. *Strategic Management Journal*, 14(1), 33–46. <https://doi.org/10.1002/smj.4250140105>
- Anand, N., Gardner, H. K., & Morris, T. (2007). Knowledge-based innovation: Emergence and embedding of new practice areas in management consulting firms. *Academy of Management Journal*, 50(2), 406–428. <https://doi.org/10.5465/amj.2007.24634457>
- Anel A. Kireyeva., Sharbanu Turdalina, Dinara Mussabalina, Nadira M. TU Turlybekova, Zauresh B. Akhmetova. (2020). Analysis of the efficiency technology transfer offices in management: The case of Spain and Kazakhstan. *Journal of Asian Finance, Economics, and Business*, 7(8), 735–746. <https://doi.org/10.13106/jafeb.2020.vol7.no8.735>
- Andreeva, T., & Kianto, A. (2011). Does knowledge management really matter? Linking knowledge management practices, competitiveness, and economic performance. *Journal of Knowledge Management*, 16(4), 617–636. <https://doi.org/10.1108/13673271211246185>
- Atul Gupta & Jason McDaniel. (2002). Creating competitive advantage by effectively managing knowledge: A framework for knowledge management. *Journal of Knowledge Management Practice*, 3(10), 1–10. <http://www.tlinc.com/articl39.htm>
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120. <https://doi.org/10.1177/014920639101700108>
- Barney, J. (1995). Looking inside for competitive advantage. *The Academy of Management Executive*, 9(4), 49–61. <https://doi.org/10.5465/ame.1995.9512032192>
- Barney, J. B. (1986). Strategic factor markets expectations, luck, and business strategy. *Management Science*, 32(10), 1231–1241. <https://doi.org/10.1287/mnsc.32.10.1231>
- Barney, J., & Clark, D. (2007). *Resource-based theory: Creating and sustaining competitive advantage*. New York: Oxford University Press.
- Bartol, K. M., & Srivastava, A. (2002). Encouraging knowledge sharing: The role of organizational reward systems. *Journal of Leadership and Organizational Studies*, 9(1), 64–76. <https://doi.org/10.1177/107179190200900105>
- Battisti, M., & Deakins, D. (2017). The relationship between dynamic capabilities, the firm's resource base, and performance in a post-disaster environment. *International Small Business Journal*, 35(1), 78–98. <https://doi.org/10.1177/0266242615611471>
- Becerra-Fernandez, I., Gonzalez, A., & Sabherwal, R. (2004). Knowledge management challenges solutions, and technologies. *Upper Saddle River, NJ: Pearson Prentice Hall*
- Bogner, W. C., & Bansal, P. (2007). Knowledge management as the basis of sustained high performance. *Journal of Management Studies*, 4(1), 165–188. <https://doi.org/10.1111/j.1467-6486.2007.00667.x>
- Bollinger, A., & Smith, R. (2001). Managing organizational knowledge as a strategic asset. *Journal of Knowledge Management*, 5(1), 8–18. <https://doi.org/10.1108/13673270110384365>
- Bolisani, E., & Bratianu, C. (2017). Knowledge strategy planning: An integrated approach to manage uncertainty, turbulence, and dynamics. *Journal of Knowledge Management*, 21(2), 233–253. <https://doi.org/10.1108/jkm-02-2016-0071>
- Bontis, N., Keow, W. C. C., & Richardson, S. (2000). Intellectual capital and business performance in Malaysian industries. *Journal of Intellectual Capital*, 1(1), 85–100. <https://doi.org/10.1108/14691930010324188>
- Bontis, N., & Serenko, A. (2009). A causal model of human capital antecedents and consequents in the financial services industry. *Journal of Intellectual Capital*, 10(1), 53–69. <https://doi.org/10.1108/14691930910922897>
- Bou-Lluisar, J. C., & Segarra-Ciprés, M. (2006). Strategic knowledge transfers and its implications for competitive advantage: An integrative conceptual framework. *Journal of Knowledge Management*, 10(4), 100–112. <https://doi.org/10.1108/13673270610679390>
- Braganza, A., Brooks, L., Nepelski, D., Ali, M., & Moro, R. (2017). Resource management in big data initiatives: Processes and dynamic capabilities. *Journal of Business Research*, 70, 328–337. <https://doi.org/10.1016/j.jbusres.2016.08.006>
- Cabello-Medina, C., López-Cabrales, A., & Valle-Cabrera, R. (2011). Leveraging the innovative performance of human capital through HRM and social capital in Spanish firms.

- International Journal of Human Resource Management*, 22(4), 807–828. <https://doi.org/10.1080/09585192.2011.555125>
- Chen, C. J., & Huang, J. W. (2009). Strategic human resource practices and innovation performance: The mediating role of knowledge management capacity. *Journal of Business Research*, 62(1), 104–114. <https://doi.org/10.1016/j.jbusres.2007.11.016>
- Chen, S. H., Tao, C. Q., & He, W. (2012). Empirical research on the relationship of knowledge integration and innovation ability of IT enterprise. *International Journal of Networking and Virtual Organisations*, 11(3/4), 315–328. <https://doi.org/10.1504/ijnvo.2012.048913>
- Choi, Yong Suk, (2000). An empirical study of factors affecting successful implementation of knowledge management. *ETD collection for University of Nebraska - Lincoln*. AAI9991981. <https://digitalcommons.unl.edu/dissertations/AAI9991981>
- Collins, C. J., & Smith, K. G. (2006). Knowledge exchange and combination: The role of human resource practices in the performance of high-technology firms. *Academy of Management Journal*, 49(3), 544–560. <https://doi.org/10.5465/amj.2006.21794671>
- David A. Aaker, V. Kumar, George S. Day. (2001). Marketing research. New York: John Wiley and Sons.
- Daud, S., Fadzilah, W., & Yusoff, W. (2010). Knowledge management and firm performance in SMEs: The role of social capital as a mediating variable. *Asian Academy of Management Journal*, 15(2), 135–155. [http://web.usm.my/aamj/15.2.2010/art%20%20\(135-155\).pdf](http://web.usm.my/aamj/15.2.2010/art%20%20(135-155).pdf)
- De Winne, S., & Sels, L. (2010). Interrelationships between human capital, HRM, and innovation in Belgian start-ups aiming at an innovation strategy. *International Journal of Human Resource Management*, 21(11), 1863–1883. <https://doi.org/10.1080/09585192.2010.505088>
- Du Plessis, M. (2007). The role of knowledge management in innovation. *Journal of Knowledge Management*, 11(4), 20–29. <https://doi.org/10.1108/13673270710762684>
- Dyer, J. H., & Nobeoka, K. (2000). Creating and managing a high-performance knowledge-sharing network: The Toyota case. *Strategic Management Journal*, 21(3), 345–367. [https://doi.org/10.1002/\(sici\)1097-0266\(200003\)21:3<345::aid-smj96>3.0.co;2-n](https://doi.org/10.1002/(sici)1097-0266(200003)21:3<345::aid-smj96>3.0.co;2-n)
- El Shafeey, T., & Trott, P. (2014). Resource-based competition: Three schools of thought and thirteen criticisms. *European Business Review*, 26(2), 122–148. <https://doi.org/10.1108/eb-07-2013-0096>
- Ferreira, J., & Fernandes, C. (2017). Resource and capabilities' effects on firm performance: What are they? *Journal of Knowledge Management*, 21(5), 1202–1217. <https://doi.org/10.1108/jkm-03-2017-0099>
- Fleming, L., & Sorenson, O. (2004). Science as a map in technological search. *Strategic Management Journal*, 25(8–9), 909–928. <https://doi.org/10.1002/smj.384>
- Gomez, Christina Michelle. (2007). Knowledge management and employee productivity. Master Thesis. 3377. http://scholarworks.sjsu.edu/etd_theses/3377
- Hair, J. F., Hult, G. Tomas M. Hult, Christain M. Ringle. (2017). *A primer on partial least squares structural equation modeling (PLS-SEM)* (2nd ed.). Thousand Oaks, CA: Sage Publications Inc.
- Halawi, L. A., Aronson, J. E., & McCarthy, R. V. (2005). Resource-based view of knowledge management for competitive advantage. *The Electronic Journal of Knowledge Management*, 3(2), 75–86. <https://core.ac.uk/download/pdf/217179364.pdf>
- Heisig, P., & Vorbeck, J. (2001). *Benchmarking survey results*. Knowledge Management, 61, 97–123. https://doi.org/10.1007/978-3-662-04466-7_6
- Holste, J., & Fields, D. (2010). Trust and tacit knowledge sharing and use. *Journal of Knowledge Management*, 14(1), 128–140. <https://doi.org/10.1108/13673271011015615>
- Hooff, B. V. D., & De Ridder, J. A. (2004). Knowledge sharing in context: The influence of organizational commitment, communication climate and CMC use on knowledge sharing. *Journal of Knowledge Management*, 8(6), 117–130. <https://doi.org/10.1108/13673270410567675>
- Hsu, M. H., Ju, T. L., Yen, C. H., & Chang, C. M. (2007). Knowledge sharing behavior in virtual communities: The relationship between trust, self-efficacy, and outcome expectations. *International Journal of Human-Computer Studies*, 65(2), 153–169. <https://doi.org/10.1016/j.ijhcs.2006.09.003>
- Hong, H., Kim, J., Kim, T., & Leem, B. (2008). The effect of knowledge on system integration project performance. *Industrial Management & Data Systems*, 108(3), 385–404. <https://doi.org/10.1108/02635570810858787>
- Jay B. Barney, Asli M. Arkan, (2001). The resource-based view: Origins and implications. In: Hitt, M. A., Freeman, R. E., & Harrison, J. S. (Eds.), *The Blackwell handbook of strategic management*. Hoboken: Wiley-Blackwell.
- Jay B. Barney. (2007). *Gaining and sustaining competitive advantage* (3rd ed). New Jersey: Prentice-Hall.
- Jiang, J., Wang, S., & Zhao, S. (2012). Does HRM facilitate employee creativity and organizational innovation? A study of Chinese firms. *International Journal of Human Resource Management*, 23(19), 4025–4047. <https://doi.org/10.1080/09585192.2012.690567>
- Kaba, A., & Ramaiah, C. K. (2017). Demographic differences in using knowledge creation tools among faculty members. *Journal of Knowledge Management*, 21(4), 857–871. <https://doi.org/10.1108/JKM-09-2016-0379>
- Kang, S. C., Snell, S., & Swart, J. (2012). Options-based HRM, intellectual capital, and exploratory and exploitative learning in law firms' practice groups. *Human Resource Management*, 51(4), 461–485. <https://doi.org/10.1002/hrm.21484>
- Kianto, A., Hurmelinna-Laukkanen, P., & Ritala, P. (2010). Intellectual capital in service and product-oriented

- companies. *Journal of Intellectual Capital*, 11(3), 305–325. <https://doi.org/10.1108/14691931011064563>
- Lee, V. H., Leong, L. Y., Hew, T. S., & Ooi, K. B. (2013). Knowledge management: A key determinant in advancing technological innovation? *Journal of Knowledge Management*, 17(6), 848–872. <https://doi.org/10.1108/jkm-08-2013-0315>
- Lee, Y., & Lee, S. (2007). Capabilities, processes, and performance of knowledge management: A structural approach. *Human Factors and Ergonomics in Manufacturing*, 17(1), 21–41. <https://doi.org/10.1002/hfm.20065>
- Leitch, B. J. M., & Rosen, P. W. (2001). Knowledge management, CKO, and CKM: The keys to competitive advantage. *The Manchester Review*, 6(2 & 3), 9–13. http://providersedge.com/docs/km_articles/KM_CKO_CKM_Keys_to_Competitive_Advantage.pdf
- Lin, H. F. (2007). Effects of extrinsic and intrinsic motivation on employee knowledge sharing intentions. *Journal of Information Science*, 33(2), 135–149. <https://doi.org/10.1177/0165551506068174>
- López-Cabrales, A., Pérez-Luño, A., & Valle-Cabrera, R. (2009). Knowledge as a mediator between HRM practices and innovation activity. *Human Resource Management*, 48(4), 485–503. <https://doi.org/10.1002/hrm.20295>
- Lubit, R. O. Y. (2001). Tacit knowledge and knowledge management: The keys to sustainable competitive advantage. *Organizational Dynamics*, 29(4), 164–178. [https://doi.org/10.1016/s0090-2616\(01\)00026-2](https://doi.org/10.1016/s0090-2616(01)00026-2)
- Lucas, L. M., & Ogilvie, D. (2006). Things are not always what they seem: How reputations, culture, and incentives influence knowledge transfer. *The Learning Organization*, 13(1), 7–24. <https://doi.org/10.1108/09696470610639103>
- Mahoney, J., & Pandian, J. (1992). The resource-based view within the conversation of strategic management. *Strategic Management Journal*, 13(5), 363–380. <https://doi.org/10.1002/smj.4250130505>
- Mcevely, B., & Zaheer, A. (1999). Bridging ties a source of firm heterogeneity in competitive capabilities. *Strategic Management Journal*, 20(12), 1133–1156. [https://doi.org/10.1002/\(sici\)1097-0266\(199912\)20:12<1133::aid-smj74>3.0.co;2-7](https://doi.org/10.1002/(sici)1097-0266(199912)20:12<1133::aid-smj74>3.0.co;2-7)
- Meroño-Cerdán, A. L., & López-Nicolás, C. (2017). Innovation objectives as determinants of organizational innovations. *Innovations*, 19(2), 208–226. <https://doi.org/10.1080/14479338.2016.1276407>
- Minbaeva, D. (2013). Strategic HRM in building micro-foundations of organizational knowledge-based performance. *Human Resource Management Review*, 23(4), 378–390. <https://doi.org/10.1016/j.hrmr.2012.10.001>
- Minbaeva, D., Foss, N., & Snell, S. (2009). Guest editors' introduction: Bringing the knowledge perspective into HRM. *Human Resource Management*, 48(4), 477–483. <https://doi.org/10.1002/hrm.20303>
- Neter, John., William, Wasserman., & Michael, H. Kutner. (1985). *Applied linear statistical models*. (2nd ed.). Homewood: Richard D. Irwin, Inc.
- Nonaka, I. (1994). A dynamic theory of organizational knowledge creation. *Organization Science*, 5(1), 14–37. <https://doi.org/10.1287/orsc.5.1.14>
- Nonaka, I., & Takeuchi, H. (1995). *The knowledge-creating company: how Japanese companies create the dynamics of innovation*. (1st ed.). New York: Oxford University Press.
- Nunnally, Jum. & Bernstein, Ira. (1994). *Psychometric theory* (3rd ed.). New York: McGraw-Hill.
- Ong, J. W., & Ismail, H. B. (2008). Sustainable competitive advantage through information technology competence: Resource-based view on small and medium enterprises. *Communications of the IBIMA*, 56(17), 62–70.
- Peteraf, M. A., & Barney, J. B. (2003). Unraveling the resource-based tangle. *Managerial and Decision Economics*, 24(4), 309–323. <https://doi.org/10.1002/mde.1126>
- Porter, M. (1985). *Competitive advantage, creating and sustaining superior performance*. New York: Free Press.
- Ramezan, M. (2012). Measuring the knowledge productivity: A comprehensive study of knowledge workers in Iranian industrial organizations. *Education, Business and Society: Contemporary Middle Eastern Issues*, 5(3), 200–212. <https://doi.org/10.1108/17537981211265589>
- Raushan T. Dulambayeva, al-Farab, Zhansaya Temerbulatova. (2016). A model of innovation development of the national economy of Kazakhstan. *Journal of Asian Finance, Economics, and Business*, 3(1), 33–41. <https://doi.org/10.13106/jafeb.2016.vol3.no1.33>
- Rumelt, R. (2003). Towards a strategic theory of the firm. In: Foss, N. J. (Ed.), Englewood Cliffs: NJ: Prentice-Hall.
- Setyani, D., Lestari, Farah, M., Leon, Sri W., Nora a., Brabo, Aditya, Putra. (2020). Antecedents and consequences of innovation and business strategy on performance and competitive advantage of SMEs. *Journal of Asian Finance, Economics, and Business*, 7(6), 365–378. <https://doi.org/10.13106/jafeb.2020.vol7.no6.365>
- Scott Armstrong, J, Terry S. Overton. (1977). Estimating non-response bias in mail surveys. *Journal of Marketing Research*, 11(3), 396–412. <https://doi.org/10.2307/3150783>
- Shu, C., Page, A. L., Gao, S., & Jiang, X. (2012). Managerial ties and firm innovation: Is knowledge creation a missing link? *Journal of Product Innovation Management*, 29(1), 125–143. <https://doi.org/10.1111/j.1540-5885.2011.00883.x>
- Song, M., Bij, H. V. D., & Weggeman, M. (2005). Determinants of the level of knowledge application: A knowledge-based and information-processing perspective. *Journal of Product Innovation Management*, 22(5), 430–444. <https://doi.org/10.1111/j.1540-5885.2005.00139.x>
- Swart, J., & Kinnie, N. (2013). Managing multi-dimensional knowledge assets: HR configurations in professional service

- firms. *Human Resource Management Journal*, 23(2), 160–170. <https://doi.org/10.1111/j.1748-8583.2012.00197.x>
- Taminiau, Y., Smit, W., & Lange, A. D. (2009). Innovation in management consulting firms through informal knowledge sharing. *Journal of Knowledge Management*, 13(1), 42–55. <https://doi.org/10.1108/13673270910931152>
- The Department of International Trade Promotion, Ministry of Commerce of Thailand. (2019). *Innovation and knowledge management data*. <http://www.ditp.go.th>
- Tseng, S. (2010). The effects of hierarchical culture on knowledge management processes. *Management Research Review*, 33(8), 827–839. <https://doi.org/10.1108/01409171011065635>
- Von Krogh, G. (1998). Care in knowledge creation. *California Management Review*, 40(3), 133–153. <https://doi.org/10.2307/41165947>
- Walsh, J. P., & Ungson, G. R. (1991). Organizational memory. *Academy of Management Review*, 16(1), 57–91. <https://doi.org/10.5465/amr.1991.4278992>
- Wang, D., & Chen, S. (2013). Does intellectual capital matter? High-performance, work systems, and bilateral innovative capabilities. *International Journal of Manpower*, 34(8), 861–879. <https://doi.org/10.1108/ijm-07-2013-0167>
- Wee, J. C. N., & Chua, A. Y. K. (2013). The peculiarities of knowledge management processes in SMEs: The case of Singapore. *Journal of Knowledge Management*, 17(6), 958–972. <https://doi.org/10.1108/jkm-04-2013-0163>
- Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal*, 5(2), 171–180. <https://doi.org/10.1002/smj.4250050207>
- Weerawardena, J. (2003). Exploring the role of market learning capability in competitive strategy. *European Journal of Marketing*, 37(3–4), 407–429. <https://doi.org/10.1108/03090560310459023>
- Yang, C., & Lin, C. (2009). Does intellectual capital mediate the relationship between HRM and organizational performance? The perspective of the healthcare industry in Taiwan. *Journal of Human Resource Management*, 20(9), 1965–1984. <https://doi.org/10.1080/09585190903142415>
- Youndt, M. A., & Snell, S. A. (2004). Human resource configurations, intellectual capital, and organizational performance. *Journal of Managerial Issues*, 16(3), 337–360. <https://doi.org/10.1412/jmi.23101.16.3.2004>
- Zack, M. H. (1999). Developing a knowledge strategy. *California Management Review*, 41(3), 125–145. <https://doi.org/10.2307/41166000>
- Zhou, M., & Li, P. K. (2007). How does strategic orientation matter in Chinese firms? *Asia Pacific Management*, 24(4), 446–466. <https://doi.org/10.1007/s10490-007-9048-1>