

The Role of Strategic Knowledge towards Formulating Business Strategy in MSC Status Companies: A Preliminary Outlook

Norzanah Mat Noor

Arsyad Ayub Graduate Business School, Universiti Teknologi MARA Shah Alam, Selangor.

Email: norzanah@uitm.edu.my

Siti Sakinah Ab. Rahim*

Arsyad Ayub Graduate Business School, Universiti Teknologi MARA Shah Alam, Selangor.

Email: sitisakinah.abraham@gmail.com

Rumaizah Mohd Nordin

Faulty of Architecture, Planning and Surveying, Universiti Teknologi MARA Shah Alam, Selangor.

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ABSTRACT

This is a preliminary study on examining the relationship between Knowledge Management (KM) and Competitive Intelligence (CI) that might be integrated as a management approach to leverage strategic knowledge which impacts Business Strategy Formulation (BSF). The literature revealed that it becomes managerial challenges when competitive advantage is seen as an association with the creation, transfer, and use of knowledge for value creation of organisations. The purpose of this study is to validate developed instruments that examining the relationship between KM, CI and BSF. Data were collected using an online questionnaire sent to a total of 30 representatives from the management team members of MSC Status Companies in Malaysia. From the analysis using SPSS, the results showed a positive significant positive relationship between strategic knowledge and business strategy formulation. Specifically, KM showed strong impacts on business strategy formulation, as compared to CI. The findings of this preliminary study begin to fill a research gap by empirically prove and support the idea that strategic knowledge is the core organisational asset for business strategy formulation that will lead organisations to gain competitive positions.

Keywords: *Strategic Knowledge, Knowledge Management, Competitive Intelligence, Business Strategy Formulation*

INTRODUCTION

The rapid changes in business environments, such as competitive global pressure and high economic turbulences, have upturned the idea of sustaining a competitive advantage. In the strategic management field, scholars proactively introduced a strategy formulation framework to help organizations to achieve their competitive advantages (Brauckhoff, 2012; Khalili et al., 2013; Shujahat et al., 2017; Chatzoglou et al., 2018). The formulation of a superior business strategy establishes the foundations for an organization to continuously create, monitor and measure its success over time. The formulation activities

not only help organizations to understand their core capabilities and address their weaknesses to mitigate risks (Kamasak, 2017) but also accommodates organizations to stay focus on the right track to deliver the best performance and productivity, which in turn will profit firms both now and in the future.

Although the formulation of business strategy is critical for maintaining an organization's competitive position, there are organizations that still face the challenges of formulating their strategy in delivering up to greater value than those that are usually produced. The literature revealed that strategic leaders are still struggling to formulate a superior business strategy (Brauckhoff, 2012; Anwar and Hasnu, 2016), although there are many approaches that have been introduced by previous expertise. It becomes managerial challenges when competitive advantage is seen as an association with the creation, transfer, and use of knowledge. The creation and use of knowledge resources are no longer seen as tools to ease daily operation but to promote the performance of firms (Chevallier et al., 2016) that ultimately to gain the competitive edge.

In view of these observations, strategic leaders should consider combining knowledge resources from the internal and external environment as a strategic knowledge to formulate a superior business strategy in addressing environmental challenges (Kamasak, 2017; Shujahat et al., 2017) in order to promote the performance. In this context, knowledge management and competitive intelligence appeared as the management approach executed to unleash the organization's potential by nurturing effective and efficient management of strategic knowledge resources from the internal and external environments (Andreeva and Kianto, 2012; Inkinen, 2016; Shujahat et al., 2017). Despite the increased interest in knowledge management and competitive intelligence research, there is limited studies have provided empirical evidence linking both these management approaches with business strategy formulation. As Heisig et al., (2016) and Imran et al. (2017) note, there is an overlook from current understanding of the way knowledge management and competitive advantage could impact on business strategy in creating the value for organizations.

In response to this call, there is a need to link knowledge management and competitive intelligence with business strategy formulation. The objective of this preliminary study focuses to examine the relationship between knowledge management and competitive intelligence that might be integrated as a management approach to leverage strategic knowledge for business strategy formulation. This is essential because the formulation of a superior business strategy that depends heavily on strategic knowledge provides a contextual framework for actions that will lead organizations to anticipate future outcomes.

LITERATURE REVIEW

This study underpinned by a modified Resource-Based View (RBV) theory as a conceptual model for business strategy formulation. The theory highlights the importance of resources and capabilities as a source of competitive advantage in formulating a strategy (Grant, 1999). The RBV theory provides the basis for solving the basic problem in formulating a strategy based on exploiting organisation's internal resources to achieve the right outcomes (Shafeey and Trott, 2014). The resources of the organisation from the RBV context referred to all assets that are believed to be organisations' strengths or weaknesses that are semi-permanently integrated into organisations that can be used strategically to create value (Wernerfelt, 1984). Meanwhile, the capabilities of organisations are referred to as a pool of resources that are used to enable organisations to manage their activities and make use of their assets (Grant, 1999).

The RBV theory recognised in-house knowledge as intangible resources for organisations (Shafeey and Trott, 2014). This is because knowledge is vague and embedded in organisations that make it a type of resource that is valuable, rare, hard to imitate, and not transferable to competitors in the short run. In addition, intelligence is also accepted as intangible assets of organisations that have emerged from information acquired by organisations through their specific activities (Rothberg and Erickson, 2017). Although the information acquired comes from the organisation's external environment, the process of obtaining and analysing information is based on a specific purpose and objective set by the organisations. As a result, the information acquired will support the intelligence of different organisations to support the decision making in business strategy formulation in getting a higher performance.

Therefore, the conceptual model modified the RBV theory by integrating both internal and external environment of organisations as the source of strategic knowledge creation. The main reason behind this because RBV's theory makes it easier for organisations to identify appropriate resources to be exploited to achieve the right outcomes. Shafeey and Trott (2014) asserted that the formulation of the strategy requires the exploitation of the resources of existing organisations and the development of new ones within the organisations. In this context, KM and CI are seen as intangible assets where the exploitation of knowledge and intelligence is needed to enhance an organisation's ability to develop a superior strategy to improve its performance (Shujahat et al., 2017).

2.1 Strategic Knowledge

Knowledge is often critical for organizations to maintain their competitive advantage in an increasingly globalized and dynamic business environment (Venkitachalam and Willmott, 2017). Conceptually, knowledge is a powerful skill created by human action that resided in each individual as a means of intangible assets of organizations that is difficult to imitate and cannot easily be replaced (Theriou et al., 2011; Khalili et al., 2013; Shujahat et al., 2017).

In the context of strategic management, knowledge assets that provide significant value for competitive advantages are known as strategic knowledge (Carlos and Segarra, 2006). Organizations should fully leverage and use their knowledge effectively so that they can be able to defeat those who do not have to do the same thing. Strategic knowledge is a combination of procedural knowledge and contextual information used to influence strategic decisions for the formulation of business strategy (Shujahat et al., 2017). In formulating an effective business strategy, strategic leaders need not only information on specific instances, but should also understand that particular domain or area (Bollinger and Smith, 2001). In other words, the domain refers to knowledge or abstractions that are reusable for the development of new business strategies with different information. Improved understanding of the business environment enables strategic leaders to identify the required relevant information and ignore the irrelevant information needed to address strategic needs (Dayan et al., 2017). This means that strategic leaders should own strategic knowledge in an attempt to improve their competencies to formulate a sound business strategy that capable of surpassing competitors and gaining a competitive edge.

Strategic knowledge is a core organizational asset that has been acquired and generated from both internal and external organizational sources. Jafari and Ramalingam (2014) asserted that strategic leaders should master knowledge within the organization as well as possess information outside the organization in formulating a superior business strategy. In managing strategic knowledge, there are two management approaches that can be adopted by organizations such as knowledge management and competitive intelligence. Knowledge management is known as a management approach to managing an organization's

internal knowledge, while competitive intelligence is known as the process of acquiring and managing external knowledge resources.

2.1.1 Knowledge Management

Knowledge management refers to the management of knowledge at the individual level within organizations in order to improve the performance of the organization (Schwaer et al., 2012). Knowledge management is not just about systematically managing knowledge assets but also about playing a role as a practical management approach that leverages knowledge assets strategically for management activities. According to Corfield and Paton (2016), knowledge management is a management perspective associated with a practical activity designed to make the best use of the knowledge resources available to an organization to meet its strategic opportunities. Knowledge management aims to facilitate the process of gathering and transforming individual knowledge into the knowledge of organizations that could be circulated and shared within the organization (Theriou et al., 2011). Pe'er (2016) stressed that knowledge is an important source of economic rent in order to maintain a competitive advantage. It is, therefore, imperative for each organization to manage such critical economic assets.

Published research has shown that knowledge is recognized as a strategic resource (Schwaer et al., 2012; Barley et al., 2018), where it must be managed to be exploited in the strategy formulation in order to achieve competitive advantage (Andreeva and Kianto, 2012; Inkinen, 2016). Organizations should develop their knowledge to serve as valuable and unique resources strategically to develop a superior strategy to outperform industry competitors. Knowledge management has appeared to help organizations manage their internal acquisition and utilization of knowledge to serve their competitive advantages (Huang et al., 2016; Imran et al., 2017). Amirbekova (2014) asserted knowledge management is critical for organizations in managing their knowledge resources as it opens up opportunities for organizations to improve performance and business growth. Snyman and Kruger (2004) in their study found that effective knowledge management significantly enables strategy formulation as it helps organizations to acquire new knowledge that can be used to compete with competitors in new and innovative ways. In a study by Halawi (2006) shown that knowledge management appears to have a significant relationship with the formulation of a strategy to improve organizational competitiveness. Knowledge management is needed to use an existing strategy in creating new knowledge to plan ahead business strategy in order to increase competitiveness. Similar to the research findings of Dayan et al. (2017) that revealed the success of the strategy depends heavily on the effectiveness of knowledge management practices within organizations. This means that organizations must effectively implement knowledge management approaches in their organization in order to facilitate the strategy formulation process. To remain competitive in the industry, organizations should, therefore, manage their strategic knowledge in such a way that knowledge can be disseminated precisely and concisely in a timely manner to ease strategy formulation so that sound business strategy could be formulated.

Knowledge management works with its two strategies, namely codification and personalization, in the systematic management of knowledge within the organization. The codification strategy focuses on people-to-document and document-to-people methods for capturing and sharing knowledge within organizations, while personalization strategy is a method based on people-to-people approaches to knowledge transfer or share knowledge (Imran et al., 2017). Cheng (2017) describes the Knowledge Management Strategy (KMS) as the overall approach that organizations use to direct their knowledge resources and capabilities to the well-being of the organization. The aim of the Knowledge Management Strategy is, therefore, to align individual knowledge with the objective of organizations to improve performance and achieve competitive advantage. The KMS is a foundation for improving productivity and efficiency, where it is seen as an approach to leveraging knowledge assets for different business goals

(Wang et al., 2016; Marouf, 2016). It is adopted to improve the internal practices and processes of the organization so that it operates better, faster, cheaper, and more securely.

In gaining a competitive advantage, Khalili et al. (2013) found that having a good business strategy would help an organization not only maximize its performance but also gain its competitive advantages and remain relevant to the industry. Knowledge management must, therefore, be seen as an important factor in business strategy formulation to produce the right result of a competitive edge. Based on the positions of this understanding, therefore, the hypotheses are proposed as follows:

H1: Knowledge management has a positive relationship with business strategy formulation.

2.1.2 Competitive Intelligence

Competitive intelligence is an approach of collecting information on the external environment of organizations such as industry profiling, business environment, competitors, customers, competitive products and services as well as government regulations. The information is collected through legal and ethical procedures, such as from competitors' websites, press releases, social media postings, or information aggregators for competitors that are used to analyze the current environment in order to create more effective business strategies to move the business forward (Calof et al., 2017). According to Ghannay and Zeinab (2012), the information derived from the external environment through competitive intelligence could be used to identify and explore potential threats and opportunities that will help strategic leaders to shape the direction of the organization.

In general, competitive intelligence is portrayed as the harmonization between organizations and their external environment, which has become a platform for businesses to develop specific intelligence knowledge. From the review of literature, it was found that competitive intelligence plays an important role in addressing the disruption of industry where it enables organizations to obtain the right favorable and unfavorable information for the competitive race of the industry (Gatsoris, 2012; Nasri and Zarai, 2013; Calof et al., 2017). Nenzhelele and Pellissier (2013) stressed that the output of competitive intelligence activities gives organizations the ability to have the right information on the external environment in order to make constructive decisions in formulating a sound business strategy that warrants a competitive advantage. The study by Dishman and Calof (2008) revealed that competitive intelligence significantly affects the formulation of strategy even though most companies only use it as a tool to focus on its direct competitors rather than competition from the industry. The main reason behind this because the organizations found it is highly important for them to monitor competitors' movement to facilitate strategy formulation in reaction to that competition. Gatsoris (2012) put forward that competitive intelligence positively helping organizations to develop new ideas with regards to its competitors in making another step forward to ultimately increase its competitive advantage. Meanwhile, Bartes (2015) found that competitive intelligence significantly capable to alert the organization on its external environment and enables organizations to strengthen its entire business strategy by making the right decisions and planning in line with competitive circumstances. Hence, strategic leaders of organizations should come to recognize the importance of competitive intelligence so that sound decisions could be made during the formulation of the business strategy.

In order to develop and manage specific strategic knowledge of the competitive environment, competitive intelligence is carried out in a five-stage process cycle. All processes are carried out in a continuous cycle in order to analyze the information and to make it an intelligence knowledge (Garcia-Alsina et al., 2016). According to Choo (2006), the process was introduced with the aim of using

information strategically to create new knowledge to shape strategic decisions and to formulate the next course of action for the business. The five competitive intelligence processes, including planning and focus, collection, analysis, dissemination, and feedback (Nasri and Zarai, 2013). All of these processes should be initiated in order to help organizations understand their external landscape and enhancing the formulation of superior business strategy by analyzing and identifying the threats, weaknesses, opportunities, and strengths of market use to aids in making superior decisions (Gatsoris, 2012; Shujahat et al., 2017).

In strategic management, competitive intelligence not only helps organizations understand their competitive market but also helps organizations avoid negative surprises that could harm their businesses (Nasri and Zarai, 2013). Competitive intelligence helping organizations assess the room for improvement available to address strategic needs in formulating a business strategy not only to gain competitive advantage but also to maintain competitive positions (Cloutier, 2013; Calof et al., 2017). Hence, competitive intelligence should have relationship with business strategy formulation in an attempt to design sound business strategy for competitive run. On the basis of the discussion on the link between competitive intelligence and business strategy formulation, the following hypotheses are put forward:

H2: Competitive intelligence has a positive relationship with business strategy formulation.

2.2 Business Strategy Formulation

Business strategy formulation is defined as a complex process for the preparation of a strategic plan that enables organizations to meet their defined goals and objectives (Wrona and Ladwig, 2015). Previous studies have described the strategy formulation as a process or activity, including consideration of strategic issues, sense-making, interpretation, and decision-making that guide future actions of the organization. It is an analytical and market-driven process for drawing up and designing plans and for selecting the best course of action to achieve the desired organizational goals and objectives (Surbhi, 2015). Business strategy formulation gives organizations the opportunity to mitigate risk and overcome their most important business challenges by helping them survive in the turbulent marketplace (Oyewobi et al., 2016; Santos et al., 2017).

The development of the business strategy involves the process of setting organizational goals and objectives for the future, examining the internal and external environment, identify the strategic gap, and determining how those objectives will be achieved (Hashim, 2016; Ridwan and Yuli, 2017). Understanding the direction of the business and selecting ideal approaches for formulating a business strategy is crucial to driving the success of an organization that will result in a competitive edge. It is, therefore, important for each organization to understand its direction and adopt the right approaches to develop an effective business strategy.

It is understood that strategy formulation is considered to be an important process for the survival of organizations (Karami, 2016; Alharthy, 2017). The main reason for this is that the formulation of a business strategy allows organizations to examine the possibility of change in the foreseeable future and to help organizations to prepare for change rather than passively waiting for the industry to makes the organization accept it. Strategic leaders should, therefore, formulate an effective strategy that will bring success to the organization as it leads to business growth, a strong competitive position, and strong organizational performance.

RESEARCH METHODOLOGY

3.1 Sampling and Data Collection

The target population of this study is formed by organizations that certified with Malaysia MSC Status because of all the companies practicing advanced knowledge activity within the organizations and employed at least 20 – 50 knowledge employees with above five years working experience (Chong et al., 2017; Salman, 2018). Being the targeted sample, each of the elements in the target population can provide the desired information and convey its experience in the subject matter which can contribute to better findings of the research. The sample was obtained based on simple random sampling from 3,213 numbers of companies certified with Malaysia MSC Status. For the purpose of this preliminary study, a total of 30 questionnaire surveys were sent to the Top Management Team members including the Heads of Business Units, Boards of Directors, Senior Executive Officers, Strategic Leaders, General Managers or Owners of the companies that attached at MSC Status Companies. The collection periods of the preliminary study conducted from 1st April 2019 to 31st May 2019.

3.2 Measures

In designing the questionnaire, a seven-point Likert-scale (1 = strongly disagree; 7 = strongly agree) was used to measure three constructs relating to strategic knowledge (knowledge management and competitive intelligence) and business strategy formulation. The questionnaire comprised of 29 items that were adopted from previous studies and revised accordingly to fit the theme in this study. The main constructs in this study include strategic knowledge and business strategy formulation with sub-dimensions knowledge management and competitive intelligence. The measurement of knowledge management was derived from Cheng (2017) and Imran et al. (2017), competitive intelligence was taken from Garcia-Alsina et al. (2016) and Chevallier et al. (2016), and business strategy formulation was adopted from Brauckhoff (2012) and Cofrancesco (2016).

3.3 Statistical Method

To analyze the data from the preliminary study, the IBM SPSS Statistic version 22 was employed. Three statistical analysis was executed including Descriptive Analysis for the respondent profile as well as the characteristics of data, Cronbach's alpha analysis for reliability and Pearson's correlation analysis for hypotheses testing. In assessing the internal consistency of the questionnaire, this study focused on Cronbach's alpha value. Cronbach's alpha is most commonly used to estimate the reliability or internal consistency of a questionnaire, which made up of multiple Likert-type scales and items. The general rule of thumb is that a Cronbach's alpha of .70 and above is good, .80 and above is better, and .90 and above is best (Pallant, 2013). Additions to that, Pearson's correlation analysis conducted to test the hypothesized relationship between knowledge management, competitive intelligence and business strategy formulation in MSC Status companies.

ANALYSIS AND RESULT

4.1 Descriptive Analysis

Table 1 shows the respondent’s demographic profile that gives an overview of the respondent’s background. In summary, the study was dominated by male respondents at 76.7% than female respondents. Out of 30 respondents, half of them aged around 41-50 years old (50%), followed by the respondents who are 31-40 years old (26.7%). An only small group of respondents was above 50 years old (23.3%). Meanwhile, the academic qualifications indicated that the majority of the respondents are Bachelor's Degree holders at 76.7%. In term of position’s level, 73.3% of respondents who participate in this survey are those hold Manager of Head of Department level and 20% of the respondents are a Director or Chief of Division. Only 6.7% of the respondents identified as the Owner of the company. Therefore, data collected from these groups of respondents should be considered valid as they represented the targeted sample of this study.

Table 1 Respondent’s Demographic Profile

| Profile | Frequency (n=30) | Percentage (%) |
|----------------------------------|------------------|----------------|
| Gender | | |
| Male | 23 | 76.7 |
| Female | 7 | 23.3 |
| Age Group | | |
| Below 30 years | 0 | 0 |
| 31 – 40 years | 8 | 26.7 |
| 41 - 50 years | 15 | 50.0 |
| Above 50 years | 7 | 23.3 |
| Academic Qualification | | |
| Certificate / Diploma | 5 | 16.7 |
| Bachelor Degree | 23 | 76.7 |
| Master | 2 | 6.7 |
| PhD or Doctorate | 0 | 0 |
| Level of Position | | |
| Manager or Head of Department | 22 | 73.3 |
| Director or Chief of Division | 6 | 20.0 |
| Owner of the Company | 2 | 6.7 |

Furthermore, Table 2 recorded details of descriptive analysis for variable of Knowledge Management that consisted of 12 items based on activities in managing internal knowledge. The analysis revealed that activities of KM lies in the indicator of “Documentation of projects’ result and meetings” that become the most preferred activities by the organizations with the mean value 6.50. This was followed closely with the items of “Professional dialogue practicing”, “Informal conversation for knowledge sharing” and “Informal conversation for knowledge sharing” with the mean values of 6.37, 6.27 and 6.23 each respectively. Meanwhile, there are three items recorded same mean value of 6.17 for the items of “Knowledge sharing among employees”, “Conducive environment to produce new knowledge through communication” and “Documentation of forecasting, management figures, and technical information”. As

we see from the lowest five rank activities of managing internal knowledge with the mean value ranging between 6.10 and 5.80, all these five activities are more or less related to the codification strategy of KM where the knowledge is manage through the means of people-to-document and document-to-people except the item of “Easily acquiring knowledge among employees”.

Table 2 Means and Standard Deviation for Knowledge Management (n = 30)

| Description of Items | Mean | Std. Deviation | Rank |
|---|------|----------------|------|
| Documentation of projects' result and meetings | 6.50 | 0.509 | 1 |
| Professional dialogue practicing | 6.37 | 0.669 | 2 |
| Informal conversation for knowledge sharing | 6.27 | 0.45 | 3 |
| Acquiring knowledge through creative and essential dialogues | 6.23 | 0.626 | 4 |
| Knowledge sharing among employees | 6.17 | 0.699 | 5 |
| Conducive environment to produce new knowledge through communication | 6.17 | 0.531 | 6 |
| Documentation of forecasting, management figures, and technical information | 6.17 | 0.699 | 7 |
| Availability of formal documents by hardcopy and softcopy | 6.10 | 0.759 | 8 |
| Databases for documented information and manuals | 6.07 | 0.828 | 9 |
| Easily acquiring knowledge among employees | 6.00 | 0.830 | 10 |
| IT facilities for knowledge sharing | 5.83 | 0.791 | 11 |
| Documentation of manuals | 5.80 | 0.805 | 12 |

Meanwhile, Table 3 presents the result of the descriptive analysis of the variable of competitive intelligence. Based on the result, the highest five activities of competitive intelligence were lies in the item of “Gather information from offline sources”, “Believe information needed is useful” and “information adequacy and efficacy”, “Storing and classified the information” and “Information generated are disseminated” with the mean value of 6.43, 6.40, 6.33 and 6.30 each respectively. The mean values for all these five items have small differences values for each item, perhaps it represented the most difficult activities of competitive intelligence to be done. Item of “Information evaluation” with the mean value 5.87 recorded the lowest mean value for the variable of competitive intelligence. The data shows that the activity of evaluating the information from external environment was not challenging to do as compared to other activities of competitive intelligence.

Table 3 Means and Standard Deviation for Competitive Intelligence (n = 30)

| Description of Items | Mean | Std. Deviation | Rank |
|---|------|----------------|------|
| Gather information from offline sources | 6.43 | 0.679 | 1 |
| Believe information needed is useful | 6.40 | 0.675 | 2 |
| Information adequacy and efficacy | 6.33 | 0.661 | 3 |
| Storing and classified the information | 6.30 | 0.651 | 4 |
| Information generated are disseminated | 6.30 | 0.651 | 5 |
| Know the information needed | 6.17 | 0.592 | 6 |
| Gather information from online sources | 5.93 | 0.691 | 7 |
| Information obtained is analysed individually | 5.90 | 0.662 | 8 |
| Information evaluation | 5.87 | 0.937 | 9 |

Besides the above, Table 4 reported the analysis for the variable of Business Strategy Formulation that were analysed based on eight items all together. Descriptive data analyses revealed that the item of “Developing ideas through environmental changes” was the highest rank with the mean value of 6.47. The item was followed by the item of “Basic research practice for competitive edge”, which recorded the mean value of 6.37. Next, there are three items holds same mean value of 6.20 which include the items of “Formulation of business strategy is aligned with the company's goals and direction”, “Formulating business strategy that provides competitive edge” and “Formulation business strategy based on environmental changes”. This is followed by the item of “Seeking new opportunities to pursue collective goals and mission” with the mean value of 6.07. Finally, the items of “The examination of internal resources for decision making” and “Acquiring new knowledge from the external resources” obtained the lowest value of 5.70 for each respectively.

Table 4 Means and Standard Deviation for Business Strategy Formulation (n = 30)

| Description of Items | Mean | Std. Deviation | Rank |
|---|------|----------------|------|
| Developing ideas through environmental changes | 6.47 | 0.507 | 1 |
| Basic research practice for competitive edge | 6.37 | 0.490 | 2 |
| Formulation of business strategy is aligned with the company's goals and direction. | 6.20 | 0.407 | 3 |
| Formulating business strategy that provides competitive edge. | 6.20 | 0.407 | 4 |
| Formulation business strategy based on environmental changes. | 6.20 | 0.407 | 5 |
| Seeking new opportunities to pursue collective goals and mission. | 6.07 | 0.521 | 5 |
| The examination of internal resources for decision making. | 5.70 | 0.794 | 7 |
| Acquiring new knowledge from the external resources. | 5.70 | 0.750 | 8 |

4.2 Cronbach’s alpha analysis

Cronbach’s alpha analysis was conducted to examine the internal consistency of the constructs. The finding of Cronbach's alpha test are listed in Table 3. Pallant (2013) stated that a reliability coefficient of 0.70 or higher is considered “acceptable” in most social science research situations. Based on Table 5, the score for the construct of knowledge management found to be 0.797 for the 12 items which indicate that the items have acceptable internal consistency. At the same time, the alpha coefficient for competitive intelligence for nine items was 0.962, showing that the items have a relatively high internal consistency. Meanwhile, the value of the alpha coefficient for the business strategy formulation of the eight items was 0.908, suggesting that the items have a high internal consistency. Overall, these results indicated that the three constructs items have a relatively ideal internal consistency and achieve satisfactory reliability and validity of the measures.

Table 5 Reliability Statistics for the Constructs

| Constructs | Cronbach's Alpha | N of Items |
|-------------------------------|------------------|------------|
| Knowledge Management | 0.797 | 12 |
| Competitive Intelligence | 0.962 | 9 |
| Business Strategy Formulation | 0.962 | 8 |

4.3 Pearson's correlation analysis

Pearson’s correlation analysis is conducted to test the hypothesized relationship between knowledge management, competitive intelligence, and business strategy formulation. The analysis is used to describe the direction and strength of the linear relationship between the constructs (Pallant, 2013). Figure 1 and Table 6 reports the findings of Pearson’s correlation analysis.

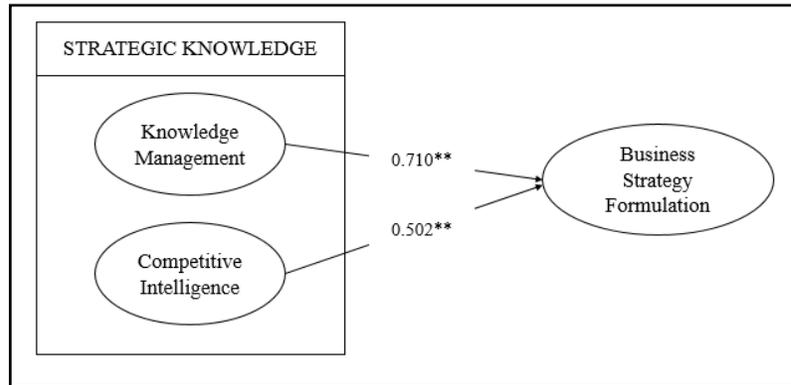


Fig 1 Structural Model of Knowledge Management, Competitive Intelligence and Business Strategy Formulation

Table 6 Pearson Correlation Result

| | Knowledge Management | Competitive Intelligence | Business Strategy Formulation |
|--------------------------------------|----------------------|--------------------------|-------------------------------|
| Knowledge Management | | | |
| Pearson Correlation | 1 | 0.196 | 0.710** |
| Sig. (2-tailed) | | 0.299 | 0.000 |
| N | 30 | 30 | 30 |
| Competitive Intelligence | | | |
| Pearson Correlation | 0.196 | 1 | 0.502** |
| Sig. (2-tailed) | 0.299 | | 0.005 |
| N | 30 | 30 | 30 |
| Business Strategy Formulation | | | |
| Pearson Correlation | 0.710** | 0.502** | 1 |
| Sig. (2-tailed) | 0.000 | 0.005 | |
| N | 30 | 30 | |

*** Correlation is significant at the 0.01 level (2-tailed)

Based on Pearson's correlation analysis as shown in Table 6, knowledge management and competitive intelligence significantly have a positive relationship with business strategy formulation. This is justified with the coefficient correlation value that appeared as a positive value in the results. In detail, knowledge management has a strong impact on business strategy formulation with coefficient correlation

value 0.910, compared to competitive intelligence with coefficient correlation value 0.502, at the 0.01 significant level.

DISCUSSION, IMPLICATION AND CONCLUSION

The purpose of this study was to examine the relationship between knowledge management and competitive intelligence that might be integrated as a management approach to leverage strategic knowledge which might impact business strategy formulation. From the data analysis, the results supported the proposition, which demonstrates that knowledge management and competitive intelligence has a significant positive relationship with business strategy formulation. Previous studies have demonstrated that managing knowledge is critical for strategic management process (Snyman and Kruger, 2004; Bratianu et al., 2015), which is indeed true when knowledge management and competitive intelligence is adopted for business strategy formulation (Dayan et al., 2017; Shujahat et al., 2017). The main reasons for this because the knowledge gathered from the internal and external environment of the companies holds the strategic value for long-term competitive advantages. Hence, the organization needs to manage and blend these management approaches and aligned them with the overall mission to support the companies' objectives (Khalili et al., 2013; Inkinen, 2016; Cofrancesco, 2016). The use of knowledge and information from internal and external environments may help the organizations to reach the best conclusion for strategic decisions. The more dedicated the organizations adopting knowledge management and competitive intelligence approach, the better strategic decision and actions can be made for business strategy formulation.

Additions to that, this study further shows that knowledge management has more power as a critical management approach compared to competitive intelligence in creating strategic knowledge for strategy formulation. The reason behind this fact, perhaps due to knowledge management, is much easier to execute as it is involved with managing knowledge within the internal environment that can be controlled by organizations (Snyman and Kruger, 2004). Compared to competitive intelligence, it is involved with creating knowledge from wide-external sources that are not controlled by organizations (Bose, 2008). Hence, organizations should proactively nurture an environment that is conducive to produce a novel and useful knowledge within organizations so that it can turn to strategic knowledge use for strategy formulation. Notwithstanding, competitive intelligence should not be left out as it also helps to strengthen the formulation process. In conclusion, synergy use both knowledge management and competitive intelligence will improve the capability of organizations in the formulation of a superior business strategy.

Like other research, this study has its limitations. The obvious limitation of the study was the sample where it is involved with a small sample from specific target populations. Second, this study only adopted a survey method without considering employing qualitative methods such as interviews to get in-depth data from a sample to have richer results. Thirdly, this study only focused on the simple integration of knowledge resources from the internal and external environments of organizations. The strategic fit to the extent to which these two resources can be exploited to create the value for strategy formulation with dynamic capabilities was not thoroughly explored. Finally, this preliminary study was based on the reliance of cross-sectional data collection where the changes over time could not be controlled. Therefore, all of these issues open the opportunity for further research on the field of this study.

REFERENCES

- Alharthy, A. H. (2017). Challenges of strategy implementation in the Saudi non-oil and gas industry: a qualitative investigation (Doctoral dissertation).
- Amirbekova, D. (2014, February). Theoretical Background of Knowledge Competence Development in SMEs in Kazakhstan. In 2nd International Conference on Innovation and Entrepreneurship (p. 257).
- Andreeva, T. and Kianto, A. (2012). Does knowledge management really matter? Linking KM practices, competitiveness and economic performance. *Journal of Knowledge Management*, 16(4), 617-636.
- Anwar, J., & Hasnu, S. A. F. (2016). Business strategy and firm performance: a multi-industry analysis. *Journal of Strategy and Management*, 9(3), 361-382.
- Barley, W. C., Treem, J. W., & Kuhn, T. (2018). Valuing multiple trajectories of knowledge: A critical review and agenda for knowledge management research. *Academy of Management Annals*, 12(1), 278-317.
- Bartes, F. (2015). The objectives of competitive intelligence as a part of corporative development strategy. *ACTA Universitatis Agriculturae ET Silviculturae Mendelianae Brunensis*, 62(6), 1243-1250.
- Bollinger, A. S., & Smith, R. D. (2001). Managing organizational knowledge as a strategic asset. *Journal of knowledge management*, 5(1), 8-18.
- Bose, R. (2008). Competitive intelligence process and tools for intelligence analysis. *Industrial management & data systems*, 108(4), 510-528
- Bratianu, C., Bolisani, E., & Scarso, E. (2015). Strategic planning approaches to knowledge management: a taxonomy. *Vine*.
- Brauckhoff, H. (2012). The Effects of Globalization on Strategy Formulation in the German Foundry Industry (Doctoral dissertation, University of Surrey (United Kingdom)).
- Calof, J. (2017). Canadian competitive intelligence practices – a study of practicing strategic and competitive intelligence professionals Canadian members. *Foresight*, 19(6), 577-589.
- Carlos Bou-Llusar, J., & Segarra-Ciprés, M. (2006). Strategic knowledge transfer and its implications for competitive advantage: an integrative conceptual framework. *Journal of knowledge management*, 10(4), 100-112.
- Chatzoglou, P., Chatzoudes, D., Sarigiannidis, L., & Theriou, G. (2018). The role of firm-specific factors in the strategy-performance relationship: Revisiting the resource-based view of the firm and the VRIO framework. *Management Research Review*, 41(1), 46-73.
- Cheng, E. C. (2017). Knowledge management strategies for capitalising on school knowledge. *VINE Journal of Information and Knowledge Management Systems*, 47(1), 94-109.

- Chevallier, C., Laarraf, Z., Lacam, J. S., Miloudi, A., & Salvetat, D. (2016). Competitive intelligence, knowledge management and cooperation: The case of European high-technology firms. *Business Process Management Journal*, 22(6), 1192-1211.
- Chong, C. W., Yuen, Y. Y., & Tan, B. C. (2017). Cross-border knowledge transfer in Malaysian multimedia super corridor (MSC) status corporations. *Review of International Business and Strategy*, 27(1), 70-92.
- Choo, C. W. (2002). *Information management for the intelligent organization: the art of scanning the environment*. Information Today, Inc..
- Cloutier, A. (2013). Competitive intelligence process integrative model based on a scoping review of the literature. *International Journal of Strategic Management*, 13(1), 57-72.
- Cofrancesco, S. (2016). *The Complex Social Nature of Strategy Formulation: Phenomenological Thinking for Enhanced Organizational Performance*. Northcentral University.
- Corfield, A., & Paton, R. (2016). Investigating knowledge management: can KM really change organisational culture?. *Journal of Knowledge Management*, 20(1), 88-103
- Dayan, R., Heisig, P., & Matos, F. (2017). Knowledge management as a factor for the formulation and implementation of organization strategy. *Journal of Knowledge Management*, 21(2), 308-329.
- Dishman, P. L. & Calof, J. L. (2008). Competitive intelligence: a multiphase precedent to marketing strategy. *European Journal of Marketing*.
- Garcia-Alsina, M., Cobarsí-Morales, J., & Ortoll, E. (2016). Competitive intelligence theoretical framework and practices: The case of Spanish universities. *Aslib Journal of Information Management*, 68(1), 57-75.
- Gatsoris, L. (2012). Competitive intelligence in Greek furniture retailing: a qualitative approach. *EuroMed Journal of Business*, 7(3), 224-242.
- Ghannay, J. C., & Zeineb, B. A. M. (2012, September). Synergy between competitive intelligence and knowledge management: a key for competitive advantage. In *Proceedings of the 13Th European Conference on Knowledge Management*, Vols (Vol. 1, pp. 198-207).
- Grant, R. M. (1999). The resource-based theory of competitive advantage: implications for strategy formulation. *California Management Review*, 33(3), 3-23.
- Halawi, L. A., McCarthy, R. V. and Aronson, J. E. (2006). Knowledge management and the competitive strategy of the firm. *The Learning Organization*, 13(4), 384-397.
- Hashim, MK (2016). *Approaches to Formulating Business Strategy: A Review*. *Arabian Journal of Business and Management Review*, 7(1).
- Heisig, P., Suraj, O. A., Kianto, A., Kemboi, C., Perez Arrau, G., & Fathi Easa, N. (2016). Knowledge management and business performance: global experts' views on future research needs. *Journal of Knowledge Management*, 20(6), 1169-1198

- Huang, F., Gardner, S., & Moayer, S. (2016). Towards a framework for strategic knowledge management practice: Integrating soft and hard systems for competitive advantage. *VINE Journal of Information and Knowledge Management Systems*, 46(4), 492-507.
- Imran, M. K., Bilal, A. R., Aslam, U., & Rahman, U. U. (2017). Knowledge management strategy: an organizational change prospective. *Journal of Enterprise Information Management*, 30(2), 335-351
- Inkinen, H. (2016). Review of empirical research on knowledge management practices and firm performance. *Journal of knowledge management*, 20(2), 230-257.
- Jafari, S. M., & Ramalingam, M. S. T. (2014, February). The effect of knowledge management practices on employees' innovative performance. In *2nd International Conference on Innovation and Entrepreneurship* (p. 112).
- Kamasak, R. (2017). The contribution of tangible and intangible resources, and capabilities to a firm's profitability and market performance. *European Journal of Management and Business Economics*, 26(2), 252-275.
- Karami, A. (2016). *Strategy formulation in entrepreneurial firms*. Routledge.
- Khalili Shavarini, S., Salimian, H., Nazemi, J., & Alborzi, M. (2013). Operations strategy and business strategy alignment model (case of Iranian industries). *International Journal of Operations & Production Management*, 33(9), 1108-1130.
- Marouf, L. (2016). The role of knowledge sharing culture in business performance. *VINE Journal of Information and Knowledge Management Systems*, 46(2), 154-174.
- Nasri, W. and Zarai, M. (2013). Key success factors for developing competitive intelligence in organisation. *American Journal of Business and Management*, 2(3), 239-244.
- Nenzhelele, T. E., & Pellissier, R. (2013). Towards a universal definition of competitive intelligence. *South African Journal of Information Management*, 15(2), 1-7.
- Oyewobi, L. O., Windapo, A. O., Rotimi, J. O. B., & Jimoh, R. A. (2016). Relationship between competitive strategy and construction organisation performance: The moderating role of organisational characteristics. *Management Decision*, 54(9), 2340-2366.
- Pallant, J. (2013). *SPSS survival manual*. McGraw-Hill Education (UK).
- Pe'er, A. (2016). Human Resource-based Competitive Advantage: The Case of Motivational Rents. *Journal of Entrepreneurship Organization Management*, 5, 162.
- Ridwan, R., and Yuli, Y. (2017). Formulasi, implementasi dan evaluasi strategy dalam penyusunan business plan pada PT. Bosowa Propertindo. *Jurnal Bisnis and Kewirausahaan*, 7(3).
- Rothberg, H. N., & Erickson, G. S. (2017). Big data systems: knowledge transfer or intelligence insights?. *Journal of Knowledge Management*, 21(1), 92-112.

- Salman, A. (2018). Create or Nurture? Lessons from Cyberjaya: Malaysia's Promised Silicon Valley. Retrieved from <http://www.ideas.org.my/wp-content/uploads/2018/07/PI50-Lessons-from-Cyberjaya-v3.pdf>
- Sansoni, J. E. (2011). Questionnaire design and systematic literature reviews. University of Canberra, Australia.
- Schwaer, C., Biemann, T. and Voelpel, S. (2012). Antecedents of employee's preference for knowledge-sharing tool. *The International Journal of Human Resource Management*, 23(17), 3613-3635.
- Shafeey, T. E., & Trott, P. (2014). Resource-based competition: three schools of thought and thirteen criticisms. *European Business Review*, 26(2), 122-148.
- Shujahat, M., Hussain, S., Javed, S., Malik, M. I., Thurasamy, R., & Ali, J. (2017). Strategic management model with lens of knowledge management and competitive intelligence: A review approach. *VINE Journal of Information and Knowledge Management Systems*, 47(1), 55-93.
- Snyman, R., & Kruger, C. J. (2004). The interdependency between strategic management and strategic knowledge management. *Journal of knowledge management*, 8(1), 5-19.
- Surbhi, S. (2015, June 20). Difference between Strategy Formulation and Strategy Implementation. Retrieved from <https://keydifferences.com/difference-between-strategy-formulation-and-strategy-implementation.html>
- Theriou, N., Maditinos, D., & Theriou, G. (2011). Knowledge management enabler factors and firm performance: an empirical research of the Greek medium and large firms. *European Research Studies*, 14(2), 97.
- Venkitachalam, K., & Willmott, H. (2017). Strategic knowledge management—Insights and pitfalls. *International Journal of Information Management*, 37(4), 313-316.
- Wang, Z., Wang, N., Cao, J., & Ye, X. (2016). The impact of intellectual capital–knowledge management strategy fit on firm performance. *Management Decision*, 54(8), 1861-1885.
- Wrona, T., & Ladwig, T. (2015). Studying strategy formation in small companies—a cognitive perspective. *Journal of Strategy and Management*, 8(1), 2-20.