Journal of Emerging Business Management and Entrepreneurship Studies
Volume 2, Nomor 1, April (2022) Hal: 33-49
ISSN: 2797-3115 (Online)
DOI: https://doi.org/10.34149/jebmes.v2i1.75

Strategic Management and Firm Survival

Hendrarto Kurniawan Supangkat*

Sekolah Tinggi Manajemen PPM
Jl. Menteng Raya No.9, Kb. Sirih, Kec. Menteng, Kota Jakarta Pusat, Jakarta, Indonesia
hensupangkat@gmail.com

Rina Widiana

Sekolah Tinggi Manajemen PPM
Jl. Menteng Raya No.9, Kb. Sirih, Kec. Menteng, Kota Jakarta Pusat, Jakarta, Indonesia
rienawi@gmail.com

**Corresponding Author*

Diterima: 04-03-2022 | Disetujui: 25-03-2022 | Dipublikasi: 28-04-2022

ABSTRAK

Manajemen strategis dipuji karena memberikan keuntungan bagi perusahaan, namun masih kurang bukti empiris yang menunjukkan bagaimana dampaknya terhadap perusahaan yang berada dalam kondisi sulit. Penelitian ini mengevaluasi situasi unik di mana sejumlah perusahaan yang menghadapi ancaman eksternal yang sama dapat berakhir secara berbeda. Hubungan antara penerapan manajemen strategis dan kemampuan perusahaan untuk bertahan hidup diselidiki melalui survei terhadap 67 perusahaan tambang nikel di Pulau Sulawesi, Indonesia. Tingkat penerapan manajemen strategis dari setiap perusahaan diukur menggunakan kuesioner yang dikembangkan dari model dua dimensi untuk kematangan manajemen strategis, meliputi dimensi proses dan dimensi kepemimpinan. Sementara itu, kemampuan bertahan hidup suatu perusahaan dinilai dalam enam aspek yang meliputi kemampuan mendeteksi ancaman, membuat rencana antisipasi, menjalankan rencana yang dibuat, menjaga keberlangsungan kegiatan operasi, mempertahankan tingkat kinerja dan mempertahankan keberlangsungan dalam jangka panjang. Teknik regresi digunakan dalam pengolahan data. Hasil penelitian menunjukkan adanya efek positif manajemen strategis terhadap kemampuan perusahaan untuk bertahan hidup. Penelitian ini juga menunjukkan bahwa dimensi kematangan dalam hal proses memainkan peran yang lebih dominan daripada dimensi kepemimpinan. Efek dari kedua dimensi kematangan dalam manajemen strategis tersebut terhadap setiap aspek dalam kemampuan bertahan hidup juga dieksplorasi lebih lanjut dalam penelitian ini.

Kata Kunci:
Manajemen Strategis, Kematangan Manajemen Strategis, Kepemimpinan Strategis, Kematangan Proses, Kematangan Kepemimpinan, Perencanaan Strategis, Keberlangsungan Perusahaan

ABSTRACT

Strategic management has been praised for presenting firms with advantages. However, there is still a lack of empirical evidence for its impact on firms in difficult conditions. This study evaluates a unique situation in which firms facing the same external threat could end up differently. The relationships between strategic management and firms' abilities to survive were investigated through a survey of 67 nickel-mining firms in Sulawesi Island, Indonesia. Each firm's level in strategic management was measured by a questionnaire, which is based on a two-dimensional model for strategic management maturity comprising process and leadership dimensions. Meanwhile, a firm's survival ability was assessed in six facets, including the ability to detect a threat, formulate an anticipation plan, implement the plan, maintain operations, maintain performance, and continue to exist in the future. Regression techniques were employed in the analysis. Proof of the positive effect that strategic management has on firms' survival is delivered as the main result. It is further found that maturity in the strategic management process plays a more dominant role than strategic leadership. The effects of both dimensions in strategic management maturity on each survival ability facet are also explored.

Keywords:
Strategic Management, Strategic Management Maturity, Strategic Leadership, Process Maturity, Leadership Maturity, Strategic Planning, Firm Survival

INTRODUCTION

The nature of business environments is dynamic in which change is the only thing permanent. The changes that come from external environments are generally grouped into opportunities and threats. While missing the former could shrink firms' chances to improve positions, failing to respond to the latter may lead to more devastating predicaments. Certain threats can even entirely remove firms from its existence.

Environmental scanning, to identify opportunities and threats, is a part of the strategic management process along with formulation and implementation of strategic plans. Hence, firms that practice strategic management should be able to detect the upcoming opportunities and threats well in advance. Subsequently, the firms could prepare and implement the appropriate response plans beforehand. Thus, with respect to threats, such firms may have better chances to survive. Unfortunately, this line of reasoning still lacks supporting empirical evidence.

Benefits of strategic management have been explored in previous studies. Yet, to the best of our knowledge, none has specifically evaluated the impacts of strategic management to firms in critical states. Our work fills this gap by assessing the relationships between strategic management and firms' survival. A distinct situation is evaluated, wherein the object firms were experiencing a common external threat that made most firms unable to last.

This study surveyed firms in an export-oriented mining industry. The external threat emerged in a form of government-imposed restriction on raw materials exports. The new regulation requires mining companies to domestically purify ores prior to overseas shipments. The requirement is meant to increase the nation's export values. It is also aimed to develop down-stream industries by forcing mining companies to build smelters, which are needed for the process. However, extensive investments are required to build such facilities. Unable to fulfill the prerequisite, some companies have to halt operations or terminate it altogether. Conversely, some firms can still survive by negotiating temporary quotas and presenting definite plans to build smelters in the near future. We evaluate whether strategic management has a role in keeping firms remain alive in this unfavorable circumstance.

The object firms were selected from nickel-mining companies in South-East Sulawesi and Central Sulawesi areas. Both provinces are among the main producers of nickel in Indonesia. All firms were export-oriented and most were small-scale miners who had no purification process in place. The export ban had been sounding off years prior to being put into effect. Thus, a firm with a good strategic management should have captured the issue long before it occurs and should have prepared an appropriate response plan

This study presents empirical evidence of a link between strategic management and firms' abilities to survive an external threat. Although the scope of work is limited to nickel-mining business in Indonesia, the results are readily generalized to most sectors of the mining industry around the globe. The obtained insights may also be applied to other industries, wherein changes in external environments

require firms to respond with hefty investments. Additionally, it leads to interesting research topics to pursue.

Strategic management and its components

According to David (2011, p. 6), "Strategic management can be defined as the art and science of formulating, implementing, and evaluating cross-functional decisions that enable an organization to achieve its objectives." The term is said to evolve from strategic planning, which originated in the 1950s. The evolution of strategic planning into strategic management is meant to provide equal attention to all stages involved in the process, not only the formulation. Nowadays, strategic management is widely practiced in firms throughout the world. The concept is also taught in universities and colleges, either as special courses or subtitles in capstone courses within business administration programs.

David (2011, p. 6) divides the strategic management process into three stages. The first stage is strategy formulation, which includes all activities that would result in decisions upon a firm's vision, missions, long-term objectives and means to reach it. The output of this stage is largely called a strategic plan or a long-term plan. Environmental scanning is also part of this stage, with the purpose to identify opportunities and threats faced by the firm. The second stage is strategy implementation, which consists of activities to gradually and timely execute strategies and attain the stated objectives. The acts to match between strategies and firms' resources are also part of this phase. Finally, the evaluation stage consists of activities to monitor and to assure that the executed strategies achieve the intended results, and are still in line with the ever-changing situations. A similar division of phases in the strategic management process is suggested by Wheelen and Hunger (2012, p. 19). However, the term element is used instead of stage. Furthermore, here the environmental scanning is considered as a separate phase.

The previously described stages put a heavy emphasis on the formal process of strategic management. Mintzberg and Waters (1985) argued that strategies do not necessarily come from a deliberate process. According to the authors, there is a continuum type of strategy that firms may apply, in which deliberation is located at one end and emergent at the other. The more deliberate strategies tend to emphasize central direction and hierarchy, while the more emergent ones open ways for collective actions and convergent behaviors. It is possible that the emergent type of strategy is better than the deliberate, as a formal strategic planning process is not without problems (Mintzberg, 1994).

Mintzberg (1994) asserted that the strategic thinking competency is crucial for the creation of superior strategies. The importance of strategic thinking was also underscored by Reid (1989), and was claimed to be more significant for small enterprises (Beaver, 2007). Heracleous (1998) suggested that either strategic thinking or strategic planning alone is inadequate. Unique strategies would not appear without strategic thinking, while operationalization of break-through ideas would not be possible without strategic planning. A similar view was shared by Lietka (1998), in which both the strategic thinking competencies of the leaders and the strategic planning process of the organization should interact in a continual process of creating and disrupting the alignment between a firm's present and

future. Meanwhile, O'Shannassy (2003) designated an integration between strategic planning and strategic thinking as the modern strategic management process.

Some studies have explored the facets in strategic thinking. Refining Heracleous' assertion, Graetz (2002) stated that the thought process of strategic thinking tends to be synthetic, divergent, creative, intuitive and innovative. A work by Lietka (1998) identified major attributes of strategic thinking, which include system or holistic view, focus on intent, thinking in time, hypothesis-driven and intelligently opportunistic. Nuntamanop et al. (2013) proposed seven traits for strategic thinking competency. Those traits are conceptual thinking, visionary thinking, creativity, analytical thinking, learning ability, synthesizing ability and objectivity. Goldman and Scott (2016) studied strategic thinking that exists in models for human competency development at several companies. They identified some essential traits, such as visionary, environmental awareness, capitalizing on opportunities, assessing situations and assuring alignments. They also found that strategic thinking may be listed as a stand-alone competency within a firm's model for competency development or be embedded under other competencies, e.g., change, leadership, strategy development, strategic direction, strategy knowledge, strategy execution. Furthermore, strategic thinking may have other names, such as business acumen, decision making and managing for results. Meanwhile, Norzalian et al. (2016) proposed the term strategic leadership as a broader competency related to strategic management. Strategic thinking is considered as one of its components, along with other competencies like leading with conscience, influence & persuasion, change management and talent development. Several internal qualities are also required for strategic leadership, which include the needs for achievement and recognition, willingness to lead and business acumen.

Measuring levels of strategic management

Based on the previous descriptions, a complete measure for a firm's level in strategic management should incorporate both the formal process and the strategic leadership. Nevertheless, most works focus only on the former. For example, Cesnovar (2006) developed an instrument to evaluate firms' characteristics in the strategic management process. The measure consists of 15 statements, each corresponds to a specific activity or output that should exist within a proper strategic management process. Dahlgaard and Ciavolino (2007) proposed an instrument to assess firms' levels in four management factors including strategic planning. The measures for strategic planning assess whether all activities are conducted based on medium and long term plans, which are systematically cascaded into lower levels and then periodically evaluated. Elbanna (2009) also focused on the planning phase of strategic management. The measurement is based on the number of analytical tools applied in formulation. An exploration toward strategic planning practices also became the center of work by Gkliatis and Koufopoulos (2013). Five dimensions were evaluated, which consist of planning formality, functional coverage, internal-external orientation, centralization of strategic planning process and time horizon of planning.

Witek-Crabb (2016) used the term mature as the final state of perfectness, fully-developed or advancement in strategic management. The term is based on the concept of maturity in organizational study. She proposed a two-dimensional model to measure a firm's level in strategic management. The first dimension is called maturity in the strategic management process and the second is maturity in leadership. A Likert-type scale is used to assess firms' levels in each dimension. Based on the median values of the data, then firms can be classified into four groups. The first group is for firms that are mature in both dimensions; the second group is for firms that are mature only in the strategic management process; the third group is for firms that are mature only in leadership; and the last group is for firms that lack of maturity in both dimensions. A strategic management maturity matrix is then employed to plot the results.

Witek-Crabb asserted that four stages exist in the strategic management process. Included in those stages are organization of strategic works, creation of missions and visions, strategic analysis, strategy implementation and control. Those stages comprise all phases described in strategic management textbooks (David, 2011; Wheelen & Hunger, 2012). Witek-Crabb maintained that a mature level in the strategic management process is indicated by a high degree of formalization, standardization, repeatability and consistency at each stage. This opinion is similar to others (Cesnovar, 2006; Dahlgaard & Ciavolino, 2007; Elbanna, 2009; Gkliatis & Koufopoulos, 2013).

To assess the level of maturity in leadership, Witek-Crabb proposed four competencies be evaluated. Those competencies are visionary, system thinking, adaptability and entrepreneurship & creativity. A leader with a visionary view thinks long-term, knows what kind of organization he or she wants to create, and sets ambitious goals. System thinking refers to the abilities to understand the firm's connection with its environment, the impacts of his or her actions to the environment, and the impact of changes in the environment to the fate of the firm. A leader with system thinking also builds and manages networks of relationships that are important for the firm and its environment. Adaptability is a result of system thinking, in which a leader is flexible, open to changes, sensitive to cultural diversity, and ready to adjust actions or decisions when needed. Meanwhile, creativity & entrepreneurship competency means that a leader continues to expand, constantly seeks for opportunities, and is willing to take risks in doing so. The basis for those competencies is literature in the field of leadership maturity, yet the described traits have similarities to the works on strategic thinking and strategic leadership (Lietka, 1998; Graetz, 2002; Nuntamanop et al., 2013; Goldman & Scott, 2016).

Witek-Crabb's model for strategic management maturity is adopted in this study, with some modifications. Following Norzalian et al. (2016), the term "maturity in leadership" is changed into "maturity in strategic leadership". Furthermore, the middle values from Likert-scales are used for the construction of quadrants in the strategic management maturity matrix, instead of the median values from the data. We argue that the middle values are more appropriate to classify firms' with respect to its maturity in strategic management. After all, this work and Witek-Crabb's have different objectives.

While her goal is simply to divide a bunch of firms into several groups based on its levels in strategic management, this work aims to evaluate its significance for firms' survival.

Benefits of strategic management

Textbooks in strategic management generally praise its benefits. David (2011, pp. 16-17) claims that strategic management makes firms be more proactive toward changes. It will subsequently increase a firm's awareness about the external threats and competitors' actions. Along with a systematic and rational approach in strategy formulation, this will lead to an excellent response plan. Since the process enhances communications and participation of the people within, then the execution of the plan will be assured. Similarly, Wheelen and Hunger (2012, pp. 6-7) assert that strategic management improves understanding toward the rapidly changing environment, increases overall satisfaction to strategy development, and makes certain that all managers pursue the same goals.

Empirical works on the relationships between strategic management and business performances have mixed results. The impact of strategic planning intensity to the financial performances of banks was claimed to be positive (Hopkins & Hopkins, 1997). Intensity was defined as the relative emphasis placed on each component in strategic planning and implementation processes. A study in a wood-processing industry indicated that the systematic uses of strategic management would result in better business outcomes (Cesnovar, 2006). The same conclusion for Turkish manufacturing companies was also reported (Glaister et al., 2008).

On the other hand, work in the hospitality industry concluded that strategic planning could be both advantageous and disadvantageous (Phillips et al., 1999). Positive impacts to business performances may come from the level of thoroughness and sophistication in strategic planning. However, its formality and rigidity could hamper the overall performances. Meanwhile, Dahlgaard and Ciavolino (2007) asserted that strategic planning had no significant impact on the performances of firms in the Italian manufacturing industry.

RESEARCH METHODS

This study evaluates the impacts of strategic management on firms' abilities to survive an external threat. The concept of maturity as proposed by Witek-Crabb (2016) is employed to differentiate firms' levels in strategic management. The model has two dimensions, i.e., maturity in strategic management process (process maturity) and maturity in strategic leadership (leadership maturity). A firm's survival ability is evaluated in six facets. Those facets are the abilities to detect a threat (detection), prepare a mitigation plan (plan), carry out real actions (actions), maintain operations (operations), maintain performance (performance), and sustain in the future (future). The first three facets measure a firm's survival ability prior to the threat, while the last three measure its survival ability post the threat.

For each dimension in strategic management maturity, we compose a set of measurement items. The measures for process maturity consist of evaluations on several aspects that indicate a good strategic management process. Included in those aspects are the standardization in planning process (standardization), attention given toward visions and missions (visions and missions), utilization of analytical methods (analytical methods), and attention given to implementation (implementation). Meanwhile, the measures for leadership maturity are derived from four traits believed to be essential. Those traits are visionary, system thinking, adaptability and entrepreneurship. Most of the aspects in process maturity and the traits in leadership maturity are adopted from Witek-Crabb. However, we independently derive the measurement items. In total, there are 17 items constructed to measure process maturity and 13 items for leadership maturity. A five-level Likert-type response is used to evaluate each item. The total score for each dimension is the average of scores given to its respective items. As well, the total score for strategic management maturity is the average of scores obtained in both dimensions. A five-level Likert type response is also employed to assess each of the six facets in survival ability. However, there is only a single measurement item prepared for each facet. Thus, a score obtained by a measurement item directly represents the score for its respective facet. The total score for survival ability is the average of scores obtained in all facets. Table 1 summarizes the relationships between research variables and its constructs.

Table 1. Research variables and its constructs

Research Variable	Dimension or Facet	Aspect or Traits	Number of Measurement Item
Strategic management maturity	Process maturity	Standardization	5
		Vision and mission	4
		Analytical methods	5
		Implementation	3
		Total	17
	Leadership maturity	Visionary	3
		Systemic thinking	3
		Adaptability	3
		Entrepreneurship	4
		Total	13
Survival ability	Detection		1
	Plan		1
	Action		1
	Operations		1
	Performance		1
	Future		1
	Total		6

Source: Data processing results (2017)

Self-administered questionnaires were employed for data collection. A pilot testing was conducted to 35 respondents conveniently selected from firms not related to the study. Since the measurement items regarding survival ability only apply to a specific condition faced by the object firms, then those were not included in the trial. Re-tests and followed interviews were conducted to

eleven of the respondents for reliability and content-validity evaluations. The pilot test indicated that ambiguities had existed in some measurement items. A revision to the questionnaire was then made accordingly.

Questionnaires were sent by mails or emails to 148 companies out of the 175 that were known to have or had operations in the target areas. The chosen firms were the ones with clear contact addresses of persons in charge. The intended recipients were people with at least manager positions within the firms. The data collection process was conducted about three years after the ban to export raw mining ores had been put in place. Thus, impacts of the threat have been felt by the firms. Some of the firms may also have ceased to operate temporarily or indefinitely.

RESULTS AND DISCUSSIONS

Results

Out of the 148 questionnaires, 72 were successfully returned. One questionnaire has a missing value in an item related to the standardization aspect. The missing value is replaced with the same level of assessments given to other items within the aspect. Four firms submitted two different questionnaires instead of one. We merged the responses by taking rounded averages of the values, reducing the sample size to 68 firms. The questionnaires were directly filled in by the owners (1%), the directors (43%) or the senior managers (56%) of the object firms.

Figure 1 presents the boxplots for survival ability and its facets, employing the graphics package embedded in R (R Core Team, 2019). The median and the third quartile values of the boxplots indicate low scores given to each facet in survival ability, except for detection ability. The figure also shows an outlier, which was caused by the inclusion of a large state-owned company within the sample. The particular firm was then removed, leaving 67 as the final size. Employing the psych package in R (Revelle, 2019), a test using polychoric alpha was conducted to check whether all facets consistently measure survival ability. The test shows an alpha value of 0.654, which indicates a moderate internal consistency. We argue that this result is adequate considering the semi formative nature of constructs between survival ability and its respective facets.

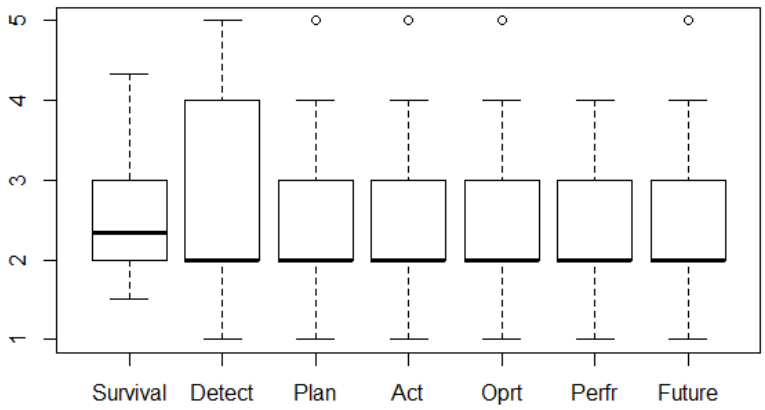

Figure 1. Boxplots of survival ability and its facets
Source: Data processing results (2017)

Figure 2 presents the boxplots for strategic management maturity and its dimensions. The figure shows imbalance assessments given to each dimension, in which the scores for leadership maturity tend to be higher than process maturity. Note, biases may exist because of assessments of complex constructs by single-raters. Self-assessment biases may also exist due to measurements of leadership maturity by the owners and the directors themselves. Nevertheless, the interquartile ranges in both dimensions still indicate quite dispersed maturity levels within the object firms.

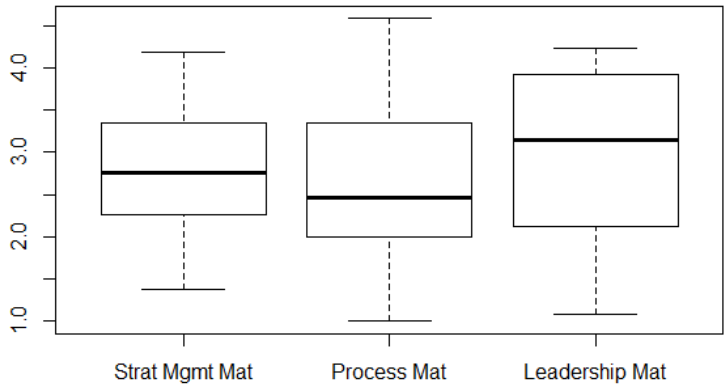

Figure 2. Boxplots of strategic management maturity and its dimensions
Source: Data processing results (2017)

Tests using polychoric alpha were conducted to check whether all measurement items consistently measure its respective dimensions. The tests show an alpha value of 0.927 for process maturity and 0.916 for leadership maturity, which indicate high internal consistencies. The strength of correlation between the two dimensions is found to be low, with r = 0.284. This low value of correlation indicates that the designed instrument manages to independently measure each dimension in strategic management maturity. We validate this indication through an exploratory factor analysis. Figure 3 presents the loadings of each measurement item to the factors using the psych package in R (Revelle, 2019). Factors MR 1 and MR 2 in the figure respectively represent process maturity and leadership maturity dimensions. Items started with "x1" are designed to measure process maturity, while items started with "x2" are designed to measure leadership maturity. Notice that all items belong to its intended groups. Moreover, there is no significant correlation between the two factors.

If strategic management maturity has an impact on survival ability, then the first indication should be the clustering of firms with high (low) values of survival ability only in certain quadrants of the strategic management maturity matrix. Figure 4 shows the positions of firms in the matrix, wherein the shapes of the plots represent different levels of survival ability. The star shape is for firms with high survival abilities (≥3.67), the diamond shape is for firms with low survival abilities (<2.33), and the square shape is for the ones with medium levels. Notice that there is a tendency for firms with high survival abilities to cluster in quadrant I, while firms with low survival abilities to be in quadrant II and III. Meanwhile, firms with middle levels of survival ability exist in every quadrant. The numbering of quadrants used here is counterclockwise, starting from the upper right.

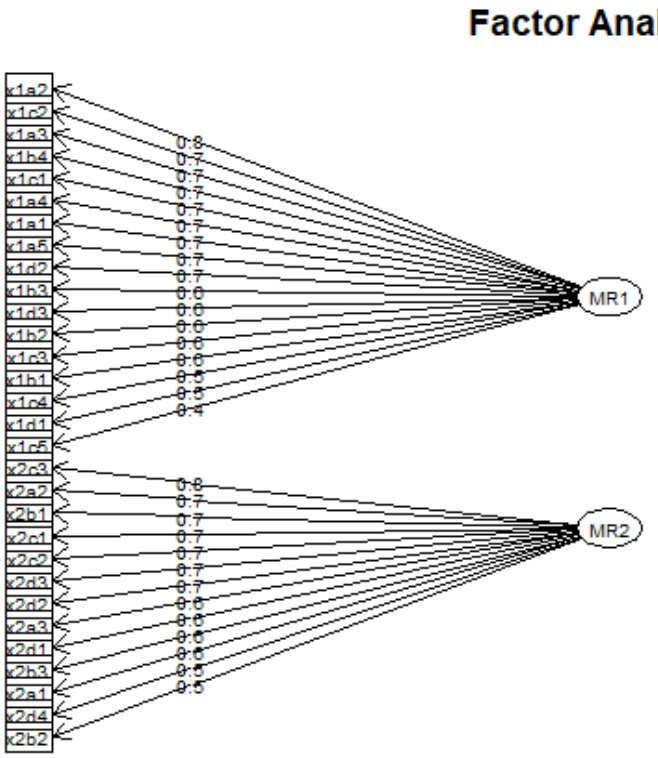

Figure 3. Loadings of measurement items to factors based on actual data
Source: Data processing results (2017)

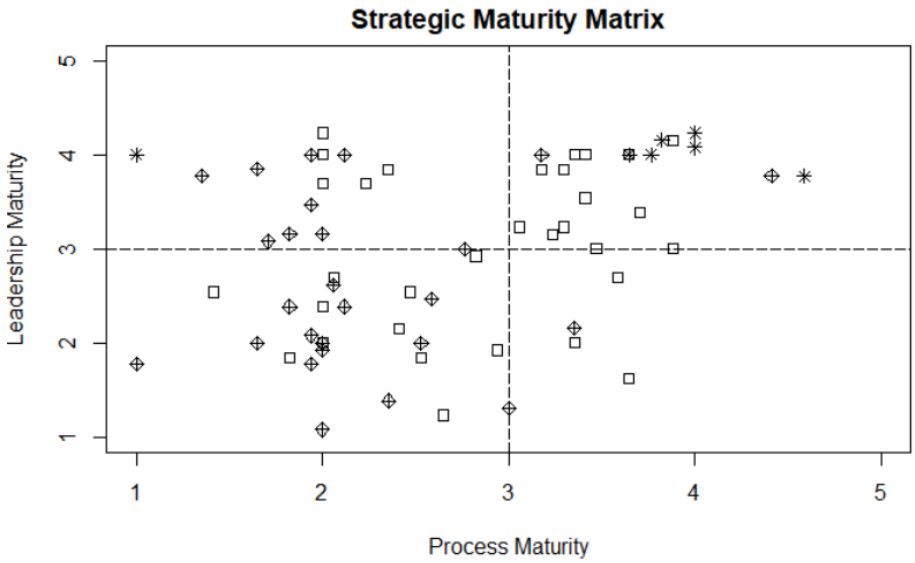

Figure 4. Positions of firms with different survival abilities in strategic management maturity matrix
Source: Data processing results (2017)

Regression analyses were conducted to verify the impacts of strategic management maturity and its dimensions to survival ability. A simple linear regression with strategic management maturity as the independent variable and survival ability as the dependent variable confirms its significant impact, with p-value = 3.96e-06 and r-squared = 0.281. Again the psych package in R was employed to conduct the test. Confirmations on the impacts of each dimension in strategic management maturity are also obtained through multiple regression analysis. As shown in Table 2, process maturity and

leadership maturity each significantly affects firms' survival abilities, with adjusted r-squared = 0.264. However, values of the estimate and its levels of significance suggest that the impact of process maturity is stronger. Figure 5 shows that the classical assumptions for regression analysis are fulfilled.

Table 2. Results of multiple regression with survival ability as dependent variable

Variable	Estimate	Std. Error	t value	p-value	
(Intercept)	1.16431	0.2832	4.111	0.000114	***
Process.Maturity	0.29241	0.08471	3.452	0.000991	***
Leadership.Maturity	0.20166	0.07829	2.576	0.012318	*

Signif. codes: '***' 0.001 '**' 0.01 '*' 0.05 '^' 0.1

Source: Data processing results (2017)

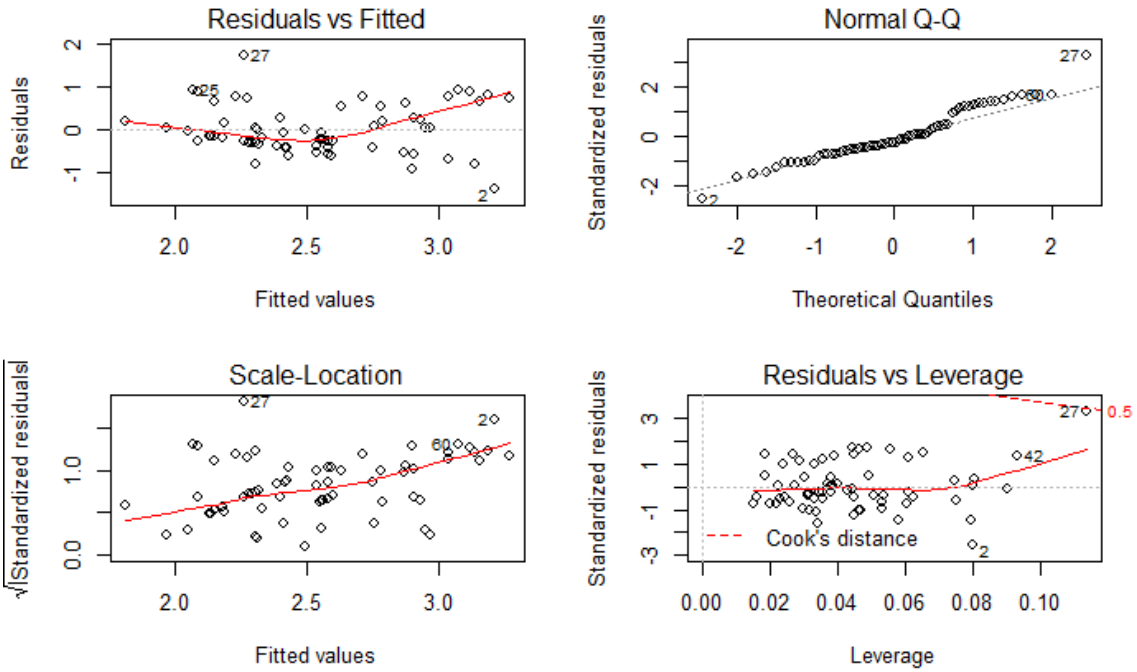

Figure 5. Tests for fulfillment of assumptions in regression analysis

Source: Data processing results (2017)

We further explore the impacts of strategic management maturity and its dimensions on each facet of survival ability. Since the dependent variables are in ordinal scales, then the polychoric regressions were employed using the MASS package in R (Ripley et al., 2019). Table 3 summarizes the results, in which the r-squared values are approximated from ordinary regressions. The results show that strategic management maturity significantly impacts each facet in survival ability, except for the ability to detect a threat. Similar conclusions can be said to process maturity dimension, albeit with lesser degrees of significance. Meanwhile, leadership maturity seems to only affect dimensions related to firms' post threat conditions, with even lower degrees of significance. Furthermore, the low values of r-squared indicate that only a small portion of variability in each facet of survival ability can be explained by strategic management maturity or its dimensions.

Table 3. Regression results with each facet of survival ability as dependent variables

	Single Regression		Multiple Regression		
Variables	Estimate for Strategic Management Maturity	R-squared	Estimate for Process Maturity	Estimate for Leadership Maturity	R-squared
Detection	0.5965	0.04629	0.2116	0.3773	0.04788
Plan	0.9684*	0.1245	0.7554*	0.2603	0.1318
Actions	1.561***	0.2647	1.194**	0.425	0.2848
Operations	1.248**	0.184	0.6843*	0.5733^	0.1841
Performance	1.236**	0.1762	0.7466*	0.5119^	0.1772
Future	1.658***	0.2753	1.1530**	0.5566^	0.2909

Signif. codes: '***' 0.001 '**' 0.01 '*' 0.05 '^'0.1

Source: Data processing results (2017)

Discussion

This study follows a logical line of thinking in evaluating the effect of strategic management to firms facing an external threat. Firms that are equipped with good strategic management processes and leadership should be able to detect the threat long before it occurs. Subsequently, the firms would have prepared some mitigation plans and implemented it beforehand. Therefore, those firms ought to be in better conditions than the ones without.

Notice that the line of thinking starts with a proposition that strategic management maturity would increase firms' abilities to detect a threat. Interestingly, Table 4 shows an anomaly, i.e., there is no significant impact of firm maturity in strategic management on detection ability. We argue that this result cannot be treated as evidence for the lack of benefit of strategic management. Follow up interviews indicate that the insignificant impact is most probably caused by the active disseminations of information regarding the threat. Multiple government and non-government outlets had sounded out the export restrictions years before its due. Hence, many firms in the business had known about the issue regardless of its levels in strategic management.

Despite knowing that a threat was coming, not all firms had prepared the mitigation plans beforehand. There are two possible explanations. First, firms may have false expectations that the government would tone down the terms in the new regulation or postpone its enactment for an indefinite time. The expectations are based on common practices, wherein regulations might sometimes be altered or deferred because of lobbies conducted by the affected parties. Second, there is a lack of feasible alternatives to overcome the threat. The most appropriate response for export restriction is for firms to build smelters. Nonetheless, this choice of action requires extensive financing support that is infeasible for most small mining companies. Other alternatives are limited to propose for temporary leniencies in export quota and to switch sales to domestic destinations. Those choices, however, would not be sufficient to maintain the same levels of operations as previously had.

In spite of the difficulties, Table 4 shows that strategic management maturity does significantly improve firms' abilities to formulate mitigation plans. A further exploration indicates that the dominant dimension here is maturity in the strategic management process. The reason perhaps is because firms

with good strategic management processes are used to formulate long term plans and required to produce physical documents as outputs. The practices may play a vital role in pushing firms' managements to still come up with mitigation plans despite the lack of options. However, as indicated by the low values of r-squared, there are other factors that are more influential in determining whether a firm would have a suitable mitigation plan for the threat. We suspect that firm size and especially its financial strength are parts of the major ingredients. Unfortunately, data upon the matters is unavailable in this study.

A follow through reasoning can be applied to analyze the impact of strategic management on firms' abilities to conduct real actions to overcome the threat. Real actions can be expected when a firm has a mitigation plan ready on hand. Since it has been shown that the ability to prepare a plan is influenced by process maturity, then the ability to carry out the plan would also be affected by it. Curiously enough, the level of significance in the latter is even higher. It perhaps indicates the existence of positive impacts of process maturity even to firms that have not prepared mitigation plans ahead of time. Note that the absences of plan in those firms may be caused by either lack of feasible alternatives or by false expectations about the situation faced. For the latter case, firms with high process maturities may eventually realize that the threat is imminent and inevitable. Those firms then would not go down without trying to do something.

Post the threat, firms' abilities to continue operations goes hand in hand with its abilities to maintain business performances. Firms that can keep their previous levels of operations would be able to maintain their existing business performances. Table 4 shows that each dimension in strategic management maturity plays a small role in making firms be able to survive the threat. The low degrees of significance in each dimension along with the low values of r-squared indicate that to survive the threat requires more than a good process maturity and a good leadership maturity. There must be other essential factors that are uncovered in this study. Nevertheless, the existence of both qualities in strategic management would improve a firm's chance to survive. One potential explanation perhaps because a good strategic management process would push firms' management to be alert and responsive. Meanwhile, a good strategic leadership might equip firms with insights, creativity and networks needed to at least stay afloat during the crisis. Both dimensions also seem to significantly influence the expectations on firms' abilities to sustain in the future. Between the two, process maturity has a higher level of significance. This may be due to its systemic nature in an organization, with more far-reaching and long-lasting effects than human leadership.

The positive impacts of strategic management, in particular process maturity, to firms as revealed in this work support the existing studies, e.g., Hopkins & Hopkins (1997), Cesnovar (2006), Glaiser et al. (2008). While those studies conclude that a good strategic management process improves a firm's performances, this work indicates that it also helps when things get rough. The mechanism on how strategic management can be beneficial in a perilous situation is not thoroughly explored in this work. However, some of the explanations may exist in the assertions on qualitative benefits of strategic

management as mentioned in textbooks (David, 2011; Wheelen & Hunger, 2012). A good strategic management process would make the firm's management be more proactive toward threats. The systematic process would make the formulated response plans finer. Enhancing communications and participation among people involved would assure a sense of unity, which is profoundly needed in a difficult situation.

CONCLUSIONS AND SUGGESTION

Conclusions

This study confirms the postulate that strategic management is beneficial for firms. Focus on a situation wherein firms face the same external threat, our work presents evidence of a positive correlation between maturity in strategic management and firm's ability to survive. Among the six evaluated dimensions, the ability to carry out real actions and the ability to continue to exist in the future are the most affected by strategic management. Contrary to expectation, its impact on firms' abilities to detect the coming threat turns out to be trivial. This may be caused by the specific situation faced, wherein information regarding the threat is a common knowledge to most players.

Despite its benefits, this study finds that strategic management only comprises a small portion of ingredients to survive an external threat. Less than 30% of varieties in firms' survival abilities can be explained by its levels of maturity in strategic management. Part of the cause is its low impact on firms' abilities to prepare the appropriate mitigation plans. Subsequently, its effects on firms' abilities to continue operations and to maintain business performances post the threat are also not satisfying enough. Other factors, not explored in this study, may have more dominant roles in determining which firms could survive, especially in a situation wherein only a few options can be taken.

This study indicates that maturity in the strategic management process is more influential to survival ability than maturity in strategic leadership. Nonetheless, when firms have both qualities in high levels, its chances to survive are significantly improved. Strategic management processes tend to affect firms' survival abilities prior to and post the threat. Meanwhile, strategic leadership seems to only affect firms' survival abilities post the threat.

Limitations and future research directions

This study employs a customized instrument to measure firms' levels of maturity in strategic management and its levels of ability to survive. Biases may exist due to the uses of single-rater in assessing each firm. Biases may also exist due to the self-assessments for levels in strategic leadership maturity by the leaders themselves. Uses of multi-raters, special tools for assessments of competencies, and verifications using quantitative data in future studies are advised to enhance validities of the results. Tests for criterion-related validities are also suggested for perfecting the instruments.

In general, this study shows a low power of strategic management maturity to explain firms' survival abilities. This may come from a special characteristic of the situation faced, wherein most

firms are defenseless to the threat. Expanding this study to include other types of threat and other types of industry would provide a more convincing picture for the impacts of strategic management on firm survival.

Further studies can also be directed to deeply explore the constructs within each dimension of strategic management maturity. Such studies would be able to identify which aspects in process maturity or which traits in leadership maturity that significantly impact firms' survival abilities. For a more thorough understanding of a firm ability to survive, other potential factors need to be included. Among the possible factors are firm size, financial strength, product variety and experience in the business. Advanced methods like structural equation modeling can be employed in the analyses. However, a quite large sample size is needed for utilizing the tool.

REFERENCES

Beaver, G. (2007). The strategy payoff for smaller enterprises. *Journal of Business Strategy*, Vol. 28 No. 1, pp. 11-17.

Cesnovar, T. (2006). The impact of strategic management on business outcomes - empirical research. *Journal for East European Management Studies*, Vol.11 No. 3, pp. 227-243.

Dahlgaard, J. J. and Ciavolino, E. (2007). Analyzing management factors on enterprise. *The Asian Journal on Quality*, Vol. 8 No. 3, pp. 1-10.

David, F. R. (2011). *Strategic Management Concepts and Cases*, 13th edn. New Jersey: Prentice Hall

Elbanna, S. (2009), Determinants of strategic planning effectiveness: extension of earlier work. *Journal of Strategy and Management*, Vol. 2 No. 2, pp. 175-187.

Gkliatis, I. P. and Koufopoulos, D. N. (2013). Strategic planning practices in the Greek hospitality industry. *European Business Review*, Vol. 25 No. 6, pp. 571-587.

Glaister, K. W., Dincer, O., Tatoglu, E., Demirbag, M. and Zaim, S. (2008). A causal analysis of formal strategic planning and firm performance: evidence from an emerging country. *Management Decision*, Vol. 46 No. 3, pp. 365-391.

Goldman, E. and Scott, A. R. (2016). Competency models for assessing strategic thinking. *Journal of Strategy and Management*, Vol. 9 No. 3, pp. 258-280.

Graetz, F. (2002). Strategic thinking versus strategic planning: towards understanding the complementarities. *Management Decision*, Vol. 40 No. 5, pp. 456-462.

Heracleous, L. (1998). Strategic thinking or strategic planning?. *Long Range Planning*, Vol. 31 No. 3, pp. 481-487.

Hopkins, W. E. and Hopkins, S. A. (1997). Strategic planning - financial performance relationship in banks: a causal examination. *Strategic Management Journal*, Vol. 18 No. 8, pp. 635-652.

Lietka, J. M. (1998). Linking strategic thinking with strategic planning. *Strategy & Leadership*, Vol. 26 No. 4, pp. 30-35.

Mintzberg, H. (1994). The fall and rise of strategic planning. *Harvard Business Review*, January-February, pp. 108-114.

Mintzberg, H. and Waters, J. A. (1985). Of strategies, deliberate and emergent. *Strategic Management Journal*, Vol. 6, pp. 257-272.

Norzailan, Z., Othman, R. B. and Ishizaki, H. (2016). Strategic leadership competencies: what is it and how to develop it?. *Industrial and Commercial Training,* Vol. 48 No. 8, pp. 394-399.

Nuntamanop, P., Kauranen, I. and Igel, B. (2013). A new model of strategic thinking competency. *Journal of Strategy and Management*, Vol. 6 No. 3, pp. 242-264.

O'Shannassy, T. (2003). Modern strategic management: balancing strategic thinking and strategic planning for internal and external stakeholders. *Singapore Management Review*, Vol. 25 No. 1, pp. 53-65.

Phillips, P., Davies, F. and Moutinho, L. (1999). The interactive effects of strategic planning on hotel performance: a neural network analysis. *Management Decision*, Vol. 37 No. 3, pp. 279-288.

Reid, D. M. (1989). Operationalizing strategic planning. *Strategic Management Journal*, Vol. 10 No. 6, pp. 553-567.

Revelle, W. (2019). *psych: procedures for personality and psychological research*. Available at: https://cran.r-project.org/web/packages/psych/index.html (accessed 7 November 2019).

R Core Team. (2019). *R: a language and environment for statistical computing*. Available at: https://www.R-project.org/ (accessed 7 November 2019).

Ripley, B., Venables, B., Bates, D. M., Kurt, H., Gebhardt, A. and Firth, D. (2019). *MASS: support function and datasets for Venables and Ripley's MASS*. Available at: https://cran.r-project.org/web/packages/MASS/index.html (accessed 7 November 2019).

Witek-Crabb, A. (2016). Maturity of strategic management in organizations. *Oeconomia Copernicana,* Vol. 7 No. 4, pp. 669-682.

Wheelen, T. L. and Hunger, J. D. (2012). *Strategic Management and Business Policy: Toward Global Sustainability*. New Jersey: Prentice Hall