



Intuition Concept in Small and Medium Enterprises through Strategic Decision-Making

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ABSTRACT

As one of the main economic pillars in Indonesia, small and medium enterprise (SME) has a unique characteristic of embracing environmental uncertainty and internal limitation. Previous researches defined two approaches of decision making i.e. rational and intuitive. Actual business practice shows that time limitation, combined with great amount of assessed variables, could create an inevitable tendency for leaders to develop their intuitive process in the decision-making. Research was conducted in four industries in Yogyakarta, Central Java i.e. batik, stone, pottery and food, with the goal of assessing the relation between environmental uncertainty to strategic decision-making, along with the impact in regards to SME's performance. The data was processed with partial least square based structural equation modelling. This research shows no causality between variables and provides strategic suggestions accordingly to improve performance.

Keywords: SMEs, Intuition, Strategic Decision-Making

JEL Classifications: C39, D81, L26

1. INTRODUCTION

Facing the inevitable global competition, each country needs to have a strong economic basis to support the welfare of the people. Industry, which consists of large enterprise and small and medium enterprise (SME), plays a role as the enabler for economic growth. As much as 56.72% of Indonesian gross domestic product was generated by SMEs, not to mention that SMEs managed to provide 99.45% of jobs in Indonesia (Rumanti, 2011). The independence of using local raw material is perceived as a unique attribute of SMEs that enables them to survive in the midst of economic crisis, compared to large enterprises that tend to use imported raw material. This particular feature thus, can serve as an effective asset in building a solid industry on a national basis (Haetubun, 2008).

Within organization, decision is always made through two approaches i.e., rational decision-making, which is based on theory and empirical

data; and intuitive decision-making, which is based on intuition and non-rational data (Puspitasari, 2009). Rationality and intuition are two different cognitive methods utilized to reflect on how a person process the information (Smith, 2004). In recent years, researchers have been trying to figure out whether managerial action should be based on rational analysis or creative intuition (Smith, 2004). Previous research revealed that success rate of rational-based managerial decision merely reached 50% (Sinclair and Ashkanasy, 2005). There are three conditions that support the usage of intuition in decision-making i.e., high level of environmental uncertainty, little amount of historical data to face the new trend, and limitation or minimum utilization of facts (Khatri and Ng, 2000). The biggest obstacle for SME is the uncertainty vis-à-vis business model, competitor, customer, and the industrial environment (Drnevich and West, 2011).

In the past, intuitive thinking process was deemed as taboo. Now in contrast, CEOs and senior managers are becoming more aware of

the limitation of conventional decision-making. The high level of dynamic within industry surrounded by uncertainty, forces manager to make a decision under a limited period of time and incomplete information (Sinclair and Ashkanasy, 2005). The utilization of intuition in decision-making suits more for strategic-related decision than a routine or daily decision because the element of uncertainty in strategic decision is far more significant compared to the daily one (Khatri and Ng, 2000). The success of SMEs is strongly affected by the implemented strategic decisions (Gibcus et al., 2006).

Regardless of the theoretical findings that stated how SMEs are more intuitive, the number of research of intuitive decision-making in Indonesian SME is still quite limited. Therefore this research intends to give more factual portrait and analysis in regards to the relation between uncertainty, intuitive decision-making, and the performance of the SME.

2. THEORETICAL BACKGROUND

2.1. Intuition

Intuition is defined as an ability and not talent that is acquired through years of various experience, internal consciousness, and knowledge (Andriotti, 2010). The more diverse the experience, the more a person will be connected with the process of intuition, which is described as thoughts and actions built through nonrational process within the creation of holistic relationship based on experience and subconscious mind (Knaap, 2008). Intuition as a phenomenon, happened because there is a lack of analytic knowledge on a particular subject that leads into an ability in the creation of new knowledge (Sinclair and Ashkanasy, 2005). Intuition can be categorized into three types i.e., judgement, experience, and gut-feeling (Khatri and Ng, 2000). In regards to decision-making, intuition, which can be continuously sharpened and practiced, should be leveraged together with rationality to support each other. Nevertheless, intuition can't be replaced (Klein, 2003).

2.2. Strategic Decision

Strategic decision is an intended or programmed choice vis-à-vis issues that physically affect sustainability, welfare, and organizational attribute (Gibcus et al., 2006). There are ten formulation of strategic decision i.e., restructuring, new product, organization change, new process technology, marketing strategy, geographic expansion, diversification, new facility, human resource strategy, and quality (Puspitasari, 2009).

2.3. Environmental Uncertainty

Environmental uncertainty is an individual inability in accurately predicting organizational environment due to the lack of information or inability to separate relevant and irrelevant data. 5 dimensions of environmental uncertainty include i.e., macroeconomic uncertainty, political/government uncertainty, supply uncertainty, product market uncertainty, and competition uncertainty (Akhter and Robles, 2006).

2.4. Performance in Small and Medium Enterprises

Previous research has formulated six dimensions of performance measurement in SME i.e. quality, finance, flexibility, time, customer satisfaction, and stakeholder (Hudson et al., 2001).

3. RESEARCH METHODOLOGY

The methodology of this research can be Figure 1.

4. DATA COLLECTION

The process of data collection was conducted by face-to-face interviews with the owner of the SMEs who equally act as direct manager. By combining quota sampling and purposive sampling as multistage sampling, 8 SME owners were interviewed. There are two questionnaires i.e. preliminary, which is about the general background of SME, and main questionnaire whose data measured in Likert scale of 4; 1 is defined as highly disagree up to 4 which is highly agree (Djastuti, 2011).

5. DATA PROCESSING

The data collected through questionnaires, are processed through SmartPLS software. By utilizing SmartPLS Software, not only the structural research model can be picturized clearly, but also the correlation and causality effect can be found (Ghozali, 2006). The structural model for this research is composed by:

1. Endogenous construct: Which consists of Environmental Uncertainty, Strategic Decision-Making Based on Intuition, and SME performance.
2. Exogenous construct: Which is shown in Figure 2.
3. Indicators: Which are statements in questionnaire synthesized from both endogenous and exogenous construct.

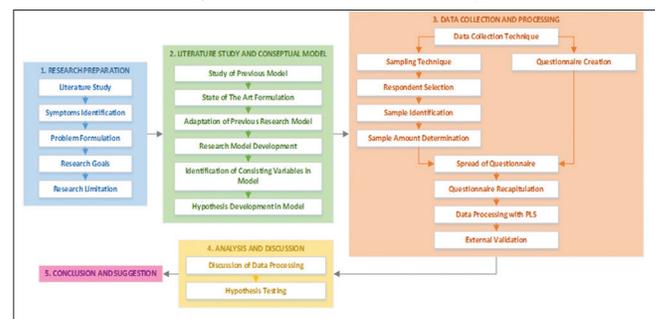
The hypothesis for this research is as follows:

- H₁: Environmental uncertainty has positive effect on strategic decision-making based on intuition.
H₂: Strategic decision-making based on intuition has positive effect on SME performance.

Some outputs from SmartPLS Software are (Ghozali, 2006):

1. Factor loading and cross loading: These two outputs can be used to validate the questionnaire. Indicator whose factor loading value is >0.50 indicates its accuracy in measuring the exogenous construct. The cross loading value for reliable indicator will exceed one in other indicator.
2. Average variance extract (AVE) and composite reliability (CR): These two outputs can be used to measure the reliability between endogenous and exogenous construct.

Figure 1: Research methodology



Reliability is reflected when AVE score is >0.50 and CR score is >0.70 .

3. Latent variable correlation (LVC): This output is used to describe the correlation between endogenous and exogenous constructs. The correlation is significant if LVC is >0.50 .
4. Significance: Each construct is considered significant when its T-statistic value is >1.96 (T-table with $\alpha = 0.05$).
5. R-square: This output explains the level of variability of endogenous construct that can be explained by other exogenous constructs outside the model (Table 1).

6. ANALYSIS

Based on Factor Loading value, indicators that are already accurate in measuring its exogenous construct are A1.1, A1.2, A3.2, A3.3, A4.1, A5.2, B1.1, B1.2, B2.1, B2.3, B3.2, B3.3, B5.1, B5.3, B6.2, C1.1, C1.2, C2.1, C2.2, C2.3, C3.2, C3.3, C5.3, C6.1, C6.3, and C6.4.

Based on Cross Loading value, indicators that are not accurate in measuring its exogenous construct are A1.3, A3.1, A4.2, A4.3, A5.1, B1.3, B2.2, B3.1, B4.1, B4.2, B5.2, B6.1, B6.3, C3.1, C4.2, C5.1, and C6.2.

The occurrence of several indicators that inaccurately measure their construct may be caused by the lack of respondent's understanding in regards to the statement or focus when answering the question, especially since there are arguably a lot of indicators that need to be answered. Despite the briefing about the topic, the lack of familiarity with the words can be considered as the cause, since their main language is Central Javanese while the questionnaire is highly in Bahasa Indonesia.

Another factor may be due to the indescribable or misinterpretation of context from exogenous construct to indicator statement. These inaccurate indicators however, were not eliminated in order to help the analysis process of the whole scheme, particularly on improving SME performance.

Based on AVE, the reliable constructs are A1, A2, A3, A5, B3, B5, C1, C2, C3, C4, C5, and C6. A4 and B2 are almost reliable. Meanwhile according to CR Value, A2, C1, C2, and C6 are considered reliable with A3, B3, and B5 almost reliable.

Based on LVC value between endogenous and exogenous constructs, strong positive correlation between exogenous and endogenous can be seen in A1, A3, A4, B1, B2, B4, B5, B6, C2,

Figure 2: Research model

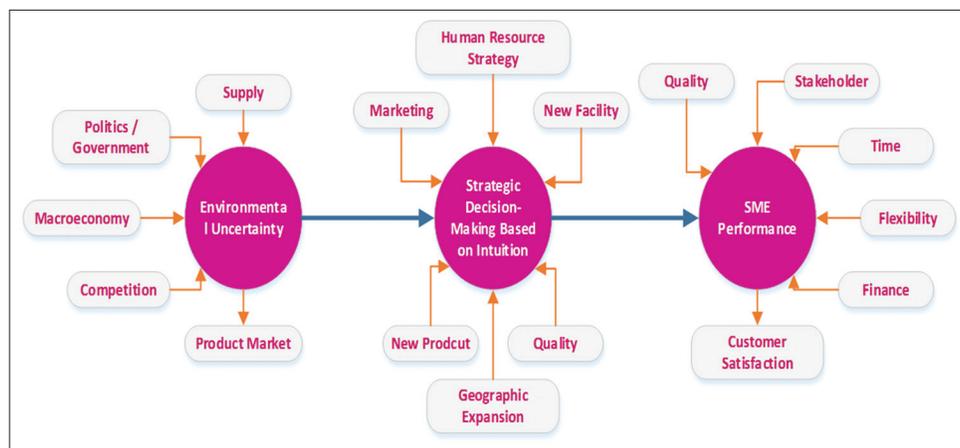


Table 1: Recapitulation of smart PLS output

Endogenous construct	Exogenous construct	Mean	AVE	CR	t-statistic	Significance
Environmental uncertainty (A)	Macroeconomic (A1)	1.88	0.5159	0.3507	4.6666	Significant
	Politics/Government (A2)	1.88	0.9619	0.9806	0.9945	Not significant
	Supply (A3)	2.58	0.6122	0.6576	3.994	Significant
	Product market (A4)	2.17	0.4607	0.0129	7.32	Significant
	Competition (A5)	1.42	0.5088	0.4005	0.23	Not Significant
Strategic decision-making based on intuition (B)	New product (B1)	3.50	0.4224	0.5605	0.877	Not significant
	Marketing strategy (B2)	3.21	0.4841	0.5262	0.6084	Not significant
	New facility (B3)	2.08	0.5701	0.6939	0.1327	Not significant
	Human resource (B4)	3.29	0.3109	0.2458	0.527	Not significant
	Quality (B5)	3.71	0.5678	0.6537	0.2843	Not significant
	Geographic expansion (B6)	2.54	0.4015	0.0768	1.0088	Not significant
SME performance (C)	Quality (C1)	3.56	0.85	0.9187	3.5713	Significant
	Finance (C2)	3.33	0.8888	0.9599	22.27	Significant
	Flexibility (C3)	2.46	0.7064	0.3632	14.3157	Significant
	Time (C4)	2.75	0.5	0.0091	1.1263	Not significant
	Customer satisfaction (C5)	3.54	0.5317	0.0427	2.7605	Significant
	Stakeholder (C6)	1.59	0.5539	0.7393	33.1997	Significant

PLS: Partial least square, AVE: Average variance extract, CR: Composite reliability

Table 2: Hypothesis test results

Hypotheses	Original (O)	t-statistics (O/STERR)
Environmental Uncertainty (A) → Strategic Decision-Making (B)	-0.2053	0.7594
Strategic Decision Making (B) → SME Performance (C)	0	0

C3, C4, C6, while rather weak correlation happens among C1 and C5. In terms of significance, the constructs A1, A3, A4, C1, C2, C3, C5, and C6 are defined as significant. This means that for constructs A1, A3, A4, C2, C3, and C6, causality relation happen on top of strong correlation with their endogenous construct. While B1, B2, B4, B5, B6, and C4 only have strong correlation with their endogenous construct.

Based on LVC value among endogenous constructs, A has a weak correlation with B and a fairly negative correlation with C, while B has a strongly negative correlation with C. Regardless of this correlation, on the causality level, there is no mutual effect found on both A to B and B to C, which means that all hypothesis are rejected since the T-statistics value for both hypothesis do not reach 1.96. This can be seen in Table 2.

Despite the absence of causality among endogenous constructs, the final chain of the model is SME performance, therefore the following are a couple of strategies that can be utilized in conjunction with the strong correlation between exogenous constructs in SME performance:

1. Quality: Defect rate needs to be maintained at low point, and a review between standard and actual quality should be conducted extensively. In art-based industry, defect can be managed by reworking or spontaneously creating a new shape that works as a unique feature.
2. Finance: Sales should be an essential aspect to grow. Preliminary questionnaire found that some SME owners do not really care about sales as long as their family can have enough food. The mindset of fulfilling only the main necessity and "go with the flow," should be challenged in order to elevate SME performance. Summarizing the amount of expense and revenue is also important to know exactly how SME is doing financially.
3. Flexibility: In order to grow, SME needs to deliver all the demand that is coming. Should owned capacity cannot handle the overwhelming order, subcontract can be used as alternative. This over demand if happened repeatedly, should be a shift of mindset awakening the owner that SME needs more human resource and tools to grow. Having said that, SME needs to recognize which pool of talent to utilize in case of sudden over demand.
4. Customer satisfaction: Satisfied customer could lead to a sense of dependency, especially when the product is unique, has great quality, with on-time readiness. Dependency will build loyal customer and SME needs to note exactly how many of its loyal customer in order to better predict demand and thus can prepare accordingly.
5. Stakeholder: Good relation needs to be developed and maintained with the employees, supplier, and government instances. This way, conflict which is related to loss, can be avoided and reversely, greater opportunity can become more possible e.g. with solid team, SME can explore exhibitions

held by government around Indonesia without having to worry about the operational in SME centre. Partnering with cooperation, a community based SME can also help to boost networking and explore more market.

7. CONCLUSION

This research has elaborated the complex relationship between environmental uncertainty, strategic decision-making based on intuition, and SME performance. There was not any causality among them and merely a fair happened.

Through theoretical framework, the dimensions for each variable have also been described to explain the readers on what measurements were taken. Despite the lack of effect, this paper has proposed several strategies regarding SME performance through the constructs that are strongly correlated to it that can be implemented to become a more competitive enterprise. The limitation of this research is the number of SMEs caused by limited resources, which can still be increased, as well as the language barrier that needs to be overcome. The exploration of more data can be used as a comparative study, and should intuition is shown to have a significant impact in SME performance, further initiatives to sharpen and develop it can be useful to help the owners in deciding strategic matters through all of the surrounding uncertainty. Authors hope that SMEs in Indonesia can be a solid foundation to guarantee the welfare of its people.

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