

EXTENDED ABSTRACT

The Simultaneous Effects of Slack Resources Mechanisms, Real Earnings Management, Strategic Posture and Environmental Threats on the Research and Development Activities

Due to increasing global competition, reliance on organizations' resources to be more effective, productive and innovative is becoming unavoidable. However, the financial crisis began in July 1997 in Indonesia had destructive effects and impaired the stability of fundamentals economy systems. Growth rate before this crisis was always in excess of 5 % prior to the crisis and sharply turned to negative during and after the crisis (Firdausy, undated). It has been widely accepted that the most contributing factors on the crisis are due to the deterioration of balance sheets besides its loose-fitting regulation and supervision.

The crisis has also brought some interesting phenomenon. For example, it was found that high performing firms (high Return on Equity) were more vulnerable to the shocks due to the crisis rather than low performing ones (Ahuja, 2000; Zona, 2012). It is plausible that firms with low Return on Equity and Earnings per Share, rather than their counterparts, could justify the uncertainty attached during the crisis. It can be speculated that the low performing firms have more idle resources that can be used as a buffer to reduce the uncertainty (Yang et al., 2009; Herold et al., 2006, Cheng and Huang, 2010; Mellahi and Wilkinson, 2010) and as a cushion during bad times (Zona, 2012). George (2005) maintained that these idle resources can be redeployed or reallocated for further more important use during bad times to achieve the organization goals.

Although slack has been widely researched (see Huang and Li, 2012; Rahrovani and Pinsonneault, 2012; Geiger and Makri, 2006; see Daniel et al. 2004 for a meta analysis) in the accounting context, few has explored its roles on the innnovatie activities and outcomes of the organization. Furthermore, little is known about the how much slack is "enough" and what types of slack contributes the most to the innovation activities of the organization. On the other hand, Slack conceptualization has been introduced in the "broken-pieces" manner. However, this study introduces the wider concept of slack resources by maintaining that idle

resources can also exist, not only in the financial and budgeting properties of the firms, but also in the operational, customer relation and human resources.

Indeed, this study contributes to the vast-array of accounting literature in several flourishing ways. First, we extend the prior conventional conceptualization of innovation in which we decompose the innovation into several important notions; (i.e. innovation quantity and resonance). Second, current study examines throughly how organizational slack affect the process of innovation by facilitating or hindering the process of exploration. Based on researchers best knowledge, no research has looked at the effect of slack resources (operational, human resource, operational, financial and budgetary slack) on the firms exploration process. Thirdly, this study also tests further the comprehensive mechanisms by testing the roles of earnings management, technology use, environmental threats and strategic posture.

LITERETURE REVIEW AND HYPOTHESES DEVELOPMENT

The impact of slack has been one of the most confusing findings so far. Accounting “behaviorists” for instance, have evoked the use of idle resources that may act as a buffer from environmental pressures (Lin et al. 2008, Huang and Li, 2012; Patzelt et al. 2008, Geiger & Makri 2006, George 2008, Stede, 2000; 2001;), or as a shock absorber (Merchant 1985), and as a buffer to engage in risk taking/innovative behavior (Yang et al. 2009, Herold et al., 2006; Love & Nohria, 2005). These “idle resources” are, therefore, important in providing organizations capabilities to act in ways that are not possible for other organizations poorer in resources (Nohria & Gulati, 1996). George (2005) maintained that the presence of slack can be used as an enactment of strategies. Lawson (2001) urged that attempts to reduce slack may be ill-advised; and in a more provoking position, Martinez and Artz (2006) even argued that “it is not possible for a firm to survive long without the presence of resources above and beyond its immediate needs” (p.12). The conflicting stands of slack resources, however can be traced back to its wide operationalization.

On the other hand, economists such as Jensen (1986; 1993) and Jensen and Meckling (1986) argued that slack reduces incentives to innovate and promotes undisciplined investment in R&D activities. They further argued that this slack creation rarely yield economic benefits and reflects the self-serving interest of managers. Bourgeois (1981) and Yasai-Ardekani (1986) documented that slack promotes the creation of suboptimal systems,

processes, and structures that reduce a firm's aggressive explorations of new responses (e.g. innovation, creativity). In fact, as been noted by Cheng and Kesner (1997), the term slack itself conjures up a host of negative perceptions.

However, this study explicitly maintains that the roles of slack on the innovation activities will be higher for the high-technology intensive firms rather than the low ones. However, in order to figure out the comprehensive mechanisms of slack, the innovation activities are decomposed into two main clusters (i.e. product exploration and product exploitation). Product exploration entails higher unpredictable investments and uncertain short-term returns. Therefore, in order to be successful, product exploration requires sufficient resources to act as a buffer. Therefore, firms with higher slack resources may positively affect the product exploration.

On the other hand, product exploitation slightly differ on terms of its processes and outcomes. Product exploitation does not require high investment although promising small but certain returns (Voss et al. 2008). Therefore, in the product exploitation states, organizations likely turn to existing product competencies, introducing product variants with minimal improvements and incremental repositioning. Therefore, the product exploitation may not require higher slack resources.

H₁: organizational slack may positively affect the product exploration

The use of technology has been unanimously considered as one of pivotal determinants in affecting the success of innovation. The high emphasis of research and development in the high-technology firms reflects firms' strong commitment to support innovation and internal learning. However, the greater extent technology use and coupled with higher resources may have greater effect on the product exploration instead of product exploitation. This is particularly because of the overall strategic emphasis of an organization is reflected in investments of resources that are indeed different in the product exploration vs exploitation.

For instance, exploration that creates novel competencies that enable on going innovation and generally results in superior long term returns requires higher extent of technology use and resources than its counterpart. On the other hand, exploitation that aims to create value through minimally modified competencies may not require the sophisticated technology use and resources to achieve sustainable competitive advantage. Therefore, this study posits that:

H₂: higher technology use coupled with higher slack resources engage more in the product exploration rather than product exploitation

Following the same logic developed in H₁, it is plausible that the technology-intensive firms may moderate the relationship between organizational slack and firms' strategic posture. When the deployment of R&D expenses are high, as in the case of high technology firms, all idle resources on terms of organizational slack will be highly absorbed in order to achieve the proactive strategic posture. In contrast to its counterpart, proactive strategic posture insists on the consistent actions that will immediately be followed by its counterparts. Therefore, the hypothesis is:

H₃: Higher organizational slack coupled with the higher technology use increase the firms' proactive strategic posture

The presence of opportunity and threats indicates the factors that may impair the firms' competitive advantage sustainability. Two streams of theories however, have predicted the ambiguous outcomes of opportunity and threats. Prospect theory for instance, maintained that the presence of threats may enforce the firms to engage in the risk taking activities (Kahneman and Tversky 1981). Since the threats tend to weaken the sustainable competitive advantage, firms must increase the investment in the higher risky projects, as in the exploratory decision, in order to hedge against the threats' outcomes. In contrary, the threat-rigidity hypothesis maintained that as the firms are faced with threats and uncertain environment, they should be focusing on engagement of the internally directed actions in order to protect their current operating position. On the other hand, the perceive opportunity may increase the firms' views regarding the potential of positive outcomes of their exploration. Thus, according to the threat rigidity hypothesis, the opportunity outcomes may induce the firms to engage in the higher levels of exploration.

This study is not going to pick either face of the theories. Instead, this study aims to provide a way out by reconciling the theories. The reconciliation can be figured out by maintaining that the product exploration response of organizational threats (or opportunity) may be contingent upon the resources availability (i.e. slack). In the face of threats, firms facing "more than enough" slack would perceive that product exploration as the positive and favorable action to do. This is particularly because the slack can be used as the buffer when the environmental threat is high in order to promote exploratory investments. Thus, this study insists:

H₄: As environment is more threatening, firms' with more slack resources will engage more in the product exploration instead of product exploitation.

Debt-covenant hypothesis maintains that debt covenant violations are costly and predict that managers have incentives to make accounting changes to avoid default (Watts and Zimmerman, 1986). However, researches on debt-covenant hypothesis was not consistent (kindly see Dichev and Skinner, 2000; Kim, 2010; Beatty et al. 2010; Nikolaev, 2010). This study implicitly maintains that lack of financial resources (i.e. financial slack) is one of determinants in which the firms may manipulate real activities. However, this relationship only occur occur in the financial slack, but not in other slack dimensions. Therefore, while H_{5a} is stated in the alternative form, H_{5b}, H_{5c} and H_{5d} are stated in the null forms.

H_{5a}: firms are more likely to engage in the real earnings managements as financial slack becomes tighter

H_{5b}: firms are not likely to engage in the real earnings managements as operational slack becomes tighter

H_{5c}: firms are not likely to engage in the real earnings managements as customer relational slack becomes tighter

H_{5d}: firms are not likely to engage in the real earnings managements as human relational slack becomes tighter

H_{5e}: firms are not likely to engage in the real earnings managements as budgetary slack becomes tighter

Lastly, this study also maintains that firms' product exploration engagement is a function of its strategic posture and real earnings management. This study maintains that real activities manipulation may implicitly indicate the firms' lack of slack resources and thus, firms may not have sufficient resources to take innovative and risky projects that could detriment the long-term return. Following the same logic, this study also insists that firms' strategic posture may affect the innovation activities. In order to be the leading player in the industry, firms' with higher strategic posture may have to keep the innovation in the right track by exploring new ideas pertainin to product exploration. Therefore:

H₆: firms' with higher real earnings management may actively participate in the product exploitation

H₇: firms' with higher strategic posture may actively participate in the product exploration.

RESEARCH METHODS

Population of current research was directed to Indonesian manufacturing business units. Manufacturing corporate parents in Indonesia was chosen because of its significant contribution to the Indonesian Growth Domestic Product. Besides, budget as one of management control and planning tools is widely used and common in the manufacturing sector (Lau & Eggleton, 2003). Furthermore, the product exploration is likely much intense in the manufacturing industry.

Current study will be conducted by using several methods such as the focus group discussion, mailed questionnaires and financial statement. This is because managers of manufacturing industry engages in the complex, high and intense market competition and thus, their job is considered to be quite complex (Mia & Patiar, 2002). Cooper and Schlinder (2003) pointed out that the research can gain some benefits by using multiple research methods particularly as a means to check the feasibility of the questionnaires. Therefore, this approach assists the researcher in gathering information that can be generalized with a high degree of confidence. The objective measures shall be collected by using the published financial statements. As published financial statements are the reports that informs the firms' historical financial position and performance, the financial activities in the year t shall be reported in the year $t+1$ in the financial statements.

Measurement of variables

a. Slack resources

Slack, in this study, is conceptualized as the excess of actual or potential resources that could assist the organization to absorb the environmental pressures and shocks (Bourgeois, 1980). This variable is multidimensional constructs consist of five dimensions: financial, budgetary, operational, customer relationship and human resource slack. Financial slack is simply measured by the current ratio, debt-equity ratio and selling, general and administrative expenses divided by sales. On the other hand, budgetary slack is measured using the operationalization of Stede (2001; 2000). Following Voss et al. (2008) this study measures human resource slack as the percentage of salary to its total expenses. Customer relational slack is simply measured by dummy variable that indicate whether there is any discount or stated policies that are aimed to keep the customer stay with the offered products.

Operational slack on the other hand is measured by percentage of firms' unused production capacity.

b. Product Exploration

Product exploration and product exploitation in this study is conceptualized as the firms' continuum state of innovation activities. In the lower end of innovation activities, firms may exploit the existing products to introduce the modified "old products". At the higher end, firms can consistently create the novel competencies that enable on going innovation and aims to yield superior long term competitive advantage. This variable will be developed by using the 7 items-Likert scale on the following states: a) creating revolutionary new conceptual approaches; b) experimenting with radical new product developments, c) efforts to patent the product and/or its process development, d) maximizing the internally-well established products (reverse-coded), e) consistently modify the products (reverse-coded), and f) producing products that are similar with the existing products (reverse-coded).

c. Strategic Posture

Strategic posture Strategic posture is measured using 7-items Likert scale that indicate a) how the competitors respond to the firms' action, b) the relative position compared to the competitors regarding product introduction

d. Real Earnings Management

Real earnings management is measured using three proxies that are widely researched in the accounting settings. However, in contrast with earlier researches that used the proxies individually in the different research, this study will make use of the three proxies at the same time. The proxies include: a) abnormal cashflow from operation, b) abnormal production costs, and c) abnormal discretionary expenses. The measurements are adapted from Rangunath (2012).

e. Environmental threats

To develop the scales for the latent construct of environmental threats, this study conduct rounds of qualitative research with industry and academics experts in order to come up with robust measurements. Several identified clusters of threats include: a) industry economic future, b) the opportunity in the current overall situation, c) current operating environment.

RESULTS

The profile of business units are clearly portrayed in table. Business units with public-listed corporate parent comprise 37.3% of the sample while the remaining 62.7% are business units with non-public listed corporate parent. Regarding the size of the firm (in terms of average sales), forty four business units are considered large as they earn more than Rp 10 billion on sales, thirty one are considered medium as they make Rp.5-10 billion sales while forty three are regard as small since their average sales are less than Rp 5 billion. Regarding the types of the business units, seventy two business units are local based-company seeing that their products are aimed for local markets, while forty six business units are multi-national company. Regarding the business units tenure, fifty nine business units have been in operation for more than ten years, while forty two business units have been in operation for 6-10 years.

Current study employs factor analysis to test the feasibility of the instruments. Factor analysis is one of statistical methods that can be used to describe the variability among the indicators or observed variables that may reflect a single unobserved variable. The information gathered from factor analysis can be used to reduce the number of hypothesized variables. Several information that can be used include KMO and Bartlett's Test, Communalities, total variance explained and rotated component matrix.

All the indices indicated that the measurement models were satisfactory. The Kaiser-Meyer-Olkin (KMO) measure, that is one of the sampling adequacy test that assess whether the partial correlation among the indicators are quite "small", all above 0.5 which is good. Similarly, Bartlett test also indicated that the measurement model is good and their significance values are less than 5 percent.

Current study found that the organizational slack affect how the organization engage in the innovative activities and firms' strategic posture. Furthermore, this study also conclude that the act of earnings management is heavily determined by whether there is enough idle resources. Research and development expenses may also moderate the relationship between organizational slack and firms' exploration activities

Conclusion

This study is of very premature in nature. The results described in the first stage of the study may not be able to be generalized into the whole perspective. However, it is very likely that

business units slack comprising of financial slack, human slack, operational slack, budgetary slack and customer relational slack are able to determine the firms' exploration activities. Furthermore, this study also indicate that the earnings management activities are heavily influenced by the the business units slack.

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