Social Capital and Firm Performance: Moderating Effect of Environmental Turbulence

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Abstract
This study aims to determine the moderating effect of environmental turbulence on the relationship among firm performance, entrepreneurial orientation, entrepreneurial management, and social capital. Along with survey on Indonesia SMEs, the finding shows that social capital plays pivotal role on firm performance. This study also provides evident that that environmental turbulence dampens the positive impact of social capital on firm performance. Under low environmental turbulence, social capital has positive impact on firm performance. However, social capital brings negative impact on firm performance during high environmental turbulence. This provides more fundamental issues on intersection between resource based view (RBV) and contingency theory (CT).

Keywords: firm performance, social capital, entrepreneurial orientation, entrepreneurial management, environmental turbulence

1. Introduction
Small medium enterprise (SMEs) are acknowledged to provide promise of welfare and job creation. Many governments and politicians try to promote SME with various entrepreneurship development programs (Duguh, 2013). Hence, the efforts to boost the performance of SMEs come to a challenging question about what determinant variables influence firm performance of SMEs in the long term.

It appears that entrepreneurial concept goes beyond what strategic management explains about how firms achieve their objectives (Shane, 2012). There has been much debate about the concept of entrepreneurs, but still slow development of a cumulative body of knowledge (Rauch et al., 2009). One of the popular views is the concept of Schumpetarian with creative destruction, which refers to innovation as driving forces for the entrepreneur concept and economic development (Betta, Jones, & Latham, 2010). Another view comes from Kirznerian. This school of thought considers another element of entrepreneurship, namely proactive market-driven behavior to seize business opportunities (Sundqvist et al., 2012). Both innovation and proactive behavior are considered as main element of entrepreneurial orientation, which refers to the best way of firms to achieve goals (Covin & Wales, 2012).

In the context of internal organization, SMEs tend to suffer from lack of resources, especially tangible asset. In external context, a firm challenges various environmental turbulence, from competitors, buyers and changing technology. Along with limited resources, SMEs need to be more adaptable to respond environmental turbulence (Nunéz & Lynn, 2012; Coad et al., 2013). Greater environmental turbulence causes gap between marketing capability and market complexity becomes greater (Didonet et al., 2012). To seize business opportunity with limited resources, SMEs rely on social capital to deal with high transaction cost (Clopton, 2011).

This study considers entrepreneurial orientation (EO), entrepreneurial management (EM) and social capital (SC) as main determinants to achieve the goal of firms. Neglecting the moderating variable from previous literatures to explain the impact of such entrepreneurial concept leads a lack of relevance and call for research about a relevant moderating variables (Didonet et al., 2012). To respond such research gap, this research focuses to determine the moderating effect of environmental turbulence (ET) on the impact of entrepreneurial orientation, social capital, and entrepreneurial management on firm performance.
2. Literature Review

This study underpins both resource-based view and contingency theory. The resources based view explains how firms use entrepreneurial orientation, entrepreneurial management and social capital as their valuable resources to achieve the goal, while contingency theory explains how exogenous variable influences the effect of such resources on firm performance.

2.1 Resource-Based View

Resource-based view (RBV) highlights transformation of valuable resource to achieve goals. This theory becomes a fertile ground to competitive advantage in which firms rely on their own tangible and intangible resources to transform their short-term competitive advantage into sustainable competitive advantage. This process requires unique resources, which are neither substitutable and removable. This approach is different from competitive based approach, which focus on source of sustainable competitiveness from external environment (Akio, 2005). However, both concepts consider that valuable resources can foster performance greater than average. As intangible resources, entrepreneurial orientation (EO), entrepreneurial management (EM) and social capital (SC) play pivotal role to boost SME performance (Sciascia, Mazzola, & Chirico, 2012). The concept of entrepreneurial orientation (EO) refers to the way firms running in the long term with proactiveness, innovativeness, and risk-taking behavior (Covin & Wales, 2012). Therefore, entrepreneurial management refers to entrepreneurial approaches in management practices, which includes strategic orientation, organization structure, entrepreneurial culture, and reward philosophy (Gürbüz & Aykol, 2009). Social capital is also considered as valuable resources. The concept of social capital anchors on social network theory, which explains behavior of social relationship in regards to assessing economic transaction (Jackson, 2008). The networks with external stakeholders come to challenges since market complexity becomes apparent. Then, social capital is crucial to achieve its performance and to survival. This construct refers to source of competitive advantage in generates incomes (Morgan, Vorhies, & Mason, 2009) with daily cash flow to recover their input cost. Innovation or new product development process requires combination between firm resources and firm capability. The RBV highlights that innovative in providing superior value to customers is main determinant to gain sustainable competitive advantage (Gupta & Malhotra, 2013). In the context of SMEs, capability to deal with external shock is crucial to achieve its performance and to survival. This construct refers to source of competitive advantage in generates incomes (Morgan, Vorhies, & Mason, 2009) with daily cash flow to recover their input cost. To narrow the gap between complexity and firm capability requires continuous process to apply knowledge, skill and resource.

2.2 Contingency Theory

Contingency theory rails against the classical management theory from being neglected of contingency factors or external environment. It seems that Classical management theory tends to be biased view against internal organization in order to achieve efficiency through specialization and formalize procedures (Peng & Sang, 2011). Hence, contingency theory considers that firm’s capability to respond business environment determines firm performance (Bell & Martin, 2012). Hence, flexibility to set organization structure is important issue to deal with environmental turbulence, which implies on new behavior of firms in order to survive (Nunéz & Lynn, 2012). Capability to deal with business environment is associated with knowledge management system, which requires firms to carry out consumer intelligence. The intelligence strategy provides information in which firms can change strategy to meet various level of environmental turbulence (Lowe, Lowe, & Lynch, 2010). Contingency model considers that firms can gain knowledge through assessing their business environment and set strategy, which are appropriate for each level of environmental turbulence (Johannesson & Palona, 2010). Indeed, environmental turbulence refers to various dynamic environmental settings in which technology, product preferences and competition intensity are dramatically changing. Contingency effect can be environmental turbulence, which refers to the hostility of business environment, which can turn into various level of uncertainty (Zhang & Duan, 2010). This concept constitutes into three elements, i.e. technology turbulence, market turbulence, and competition turbulence. Responsiveness as crucial for SMEs to deal with customer needs within technological turbulence (Didonet, Simmons, Villavicencio, & Palmer, 2012). Typically, SMEs have lack of capacity to anticipate the turbulence on account of poor scanning of accurate and reliable information about the industry condition (Wang & Fang, 2012). Market turbulence is
about the level of dynamic composition of customers and their preferences. This causes increasing uncertainty due to changing customer’s preference. The respond to market turbulence can be associated with business expansion through the advantage of larger business with market power and economies of scale (Didonet, Simmons, Villavicencio, & Palmer, 2012). Higher levels of market turbulence bring about high uncertainty due to less accurate forecast, then firms may back off to invest. Firm with capacity to develop their technology to respond the negative impact of marketing turbulence will be able to survive through demand chain visibility to manage activities better (Iyer, 2011).

2.3 Hypothesis Development

The main proposed model tries to explain firm performance and its determinants, which includes entrepreneurial orientation (EO), entrepreneurial management (EM) and social capital (SC). Construct of entrepreneurial orientation (EO) has emerged since decades, when Miller and Friesen (1978) try to identify the driving forces of success firms, i.e. innovativeness, risk-taking behavior, and proactiveness. Hence, EM is considered as mechanism for entrepreneurial firms with innovation and opportunity orientation, which embedded in strategy, organization structure, and people (Gürbüz & Aykol, 2009).

A number of studies provide evident that EO has positive impact on FP (Moreno & Casilas, 2008; Simon, Stanchel, & Covin, 2011). Firms with initiative to enhance their EO may achieve their FP in the short term, while long term competitive advantage becomes apparent in firms with radical EO (Bojica, Fuentes, & Gómez-Gras, 2011). Conversely, the extended empirical studies no strong relationship between EO and FP. This occurs to new firms with experiences no more than eleven year (Ruynam, Ge, Dong, & Swinney, 2008). Complicated relationship between risk and failure also explains the insignificant relationship between EO and FP (Andersén, 2010). In addition, Kreiser et al. (2013) argues the U-shape relationship between EO and FP explains negative relationship occurs during the earlier years, while another reason comes from unobserved variables, such as business environment turbulence (Kreiser, Marino, Kuratno, & Weaver, 2013).

Hypothesis 1: Entrepreneurial orientation has positive effect on firm performance

Another entrepreneurial concept comes from entrepreneurial management (EM), which is expected to have significant impact on FP (firm performance). This construct constitutes four elements, such as strategy orientation, entrepreneurial culture, organization structure and reward system. EM is expected to provide positive impact on FP (Bradley, Wiklund, & Shepherd, 2011). In addition, combination between EM and EO enable firms to yield the best FP (Gürbüz & Aykol, 2009). However, some elements of EM may have different impact. Overiding focus may causes no significant impact of entrepreneurial culture on FP (Slater, Olson, & Finnegan, 2011). The complicated dimension of EM may provide poor relationship between EM and FP (Urkurt, Kumar, Kimzan, & Eminoglu, 2013). Reward philosophy may have indirect effect on FP (Wei, Frankwick, & Nguyen, 2012).

Hypothesis 2: Entrepreneurial management has positive effect on firm performance

Turning to social network theory, sound performance may occur with strong SC through valuable work environment (Duffy, Scott, Shaw, Tepper, & Aquino, 2012) and life satisfaction of stakeholders (Lim & Putnam, 2010). However, different phase of firms growth may comes with different relationship between SC and FP. Overhead cost to maintain greater social capital is one of the reasons why the relationship between SC and FP is not always positive (Alguezaui & Filieri, 2010). At start-up level, firms invest a lot of resources to enhance social networks, which implies on poor FP in the sort term (Pirolio & Presutti, 2010). In addition, spillover information, which comes from greater SC may bring negative effect on FP (Ahmadi, 2011). This implies on the effectiveness of decision in SMEs, which depend on the level of connectivity with various stakeholders (Jansen et al., 2011).

Hypothesis 3: Social capital has positive effect on firm performance

Environmental turbulence (ET) is considered to come with moderating effect that changes the direction of relationship between EO and FP. Moderating effects of environment turbulence come up with multi faceted effect, which can be positive or negative. Negative mediating impact of ET on FP springs from unanticipated environmental turbulence (Wang & Fang, 2012). That technological turbulence provides moderating effect in the relationship between EO and technology commercialization. Allocate more resources to adopt new technology is considered as a risk factor under high ET (Li, Guo, Liu, & Li, 2008). Firms with greater EO tends to be more proactive in low ET and prefer to focus on investment during high turbulence (Sandqvist, Kyläheiko, & Cadogan, 2012).
Hypothesis 4: Environmental turbulence has moderating impact on the relationship between entrepreneurial orientation and firm performance

Environmental turbulence (ET) can provide both opportunity and threats in which EM style can take it for granted in such conditions. SMEs with greater EM tend to adopt informal systems, which may have more opportunity to gain benefit from environmental turbulence (Didonet, Simmons, Villavicencio, & Palmer, 2012). To some extent, flexibility and informal style enhance the capability of firms to deal with ET, which then influence positive impact on FP. Specifically, technology turbulence fosters energetic will, which enables firms to create new innovation (Bertta, Jones, & Latham, 2010). On the other hand, EM may be less relevant under high ET. Formalized structure and centralized authority is considered to provide more effective to achieve greater FP under high ET. ET can have insignificant impact on FP, especially for firms that focus on building time under high ET (Chi & Shun, 2013).

Hypothesis 5: Environmental turbulence has moderating impact on the relationship between entrepreneurial management and firm performance

ET may have different impact on the relationship between SC and FP. ET brings more complexity of social capital, which implies on the way firms improve supply chain (Nagarajan et al., 2013). Firms with greater SC may achieve the goals under low environmental turbulence. Under environmental turbulence, social capital still plays a pivotal role in FP (Tang et al., 2010; Chawla et al., 2012). Wang and Fang (2012) indicate a curvilinear relationship between EO and FP.

Hypothesis 6: Environmental turbulence has moderating impact on the relationship between social capital and firm performance.

Firms with standardized activities and centralization may increase efficiency during low environmental turbulence. However, greater turbulence sparks off poor efficiency in such organization structures (Chi & Shun, 2013).

3. Method

This study uses quantitative methods. The approach will be explained in the following steps.

3.1 Quantitative Approach

This study uses a quantitative method with cross-sectional design. The information analysis springs from a list of questionnaires, which are distributed through a random sampling approach to obtain maximum respondent rate. The questionnaires design adapts from some literatures with the aim to collect accurate information from respondents.

3.2 Sample

The sampling frame is derived from SMEs database published by the City Government of Surabaya. A list of questionnaires was sent to 700 respondents, which randomly selected from 35,489 SMEs population. The definition of SMEs refers to firms with annual sales less than USD5 million and assets no more than USD1 billion. Hence, 390 SMEs owner managers contribute to this study, which is relevant for such observed population (Krejcie & Morgan, 1970).

3.3 Measures

The measures of FP with subjective approach adapt from Aziz and Mahmood (2011). The subjective approach is part of the research strategy to deal with the financial report of SMEs (Sheppard & Radulovich, 2010). The EO measures adapt from Lumpkin, Cogliser, and Schneider (2009), which considers the three original factors, i.e., risk-taking behavior, proactiveness, and innovativeness (Miller & Friesen, 1978). The study considers structure, trust, and cognition as the elements of SC (Parra-Requena, Ruiz-Ortega, & Garcia-Villaverde, 2011). EM adapts from Gürbüz and Aykol (2009) and Bradley et al. (2012). ET comprises three elements (technological turbulence, market turbulence, and competitive turbulence), which adapt from Zhang and Duan (2010) and Didonet et al. (2012). The questions are designed with seven point Likert scaling (1-7 ratings).

3.4 Research Design

This study uses PLS (Partial Least Square) to test the hypothesis. This approach maximizes the variance with an iterative sequence of ordinary least square, to estimate the coefficient of independent variable. This implies that PLS-SEM is more relevant for application where strong assumption of multivariate normality can’t be fully met (Hair, Sarstedt, Ringle, & Mena, 2012). However, this approach has disadvantage, especially on model fit measures and no classical inferential framework (Henseler, 2010).
3.5 Moderating Effect

Moderating variable may bring change direction on the slope or coefficient of independent variables. Moderating effect may dampen the positive effect of the independent variables on FP (Henseler & Fassott, 2010). In structural equation model (SEM), the formulation of moderating effect of environmental turbulence (ET) on the relationship between social capital (SC) and firm performance (FP) can be expressed as bellow:

\[ FP = a + b \cdot SC \]  
\[ FP = a + (b + d \cdot ET) \cdot SC + c \cdot ET \]  
\[ = (a + c \cdot ET) + (b + d \cdot ET) \cdot SC \]  

4. Results

The results section summarizes the data collection and analysis performed on those data relevant.

4.1 Data description

Table 1 shows that the latent variables are in the range of 4 and 5 with seven point Likert scaling (1-7 ratings). This indicates that the observed firms have performance slightly greater than moderate. Similarly, the respondents also have EO and EM slightly greater than moderate, while SC has greater average than other variables. The coefficients of Pearson correlation show all dependent variables have significant correlation with FP. The greatest correlation among independent variables occurs between SC and EM with 0.517.

Table 1. Data description and correlation

<table>
<thead>
<tr>
<th>Variables</th>
<th>Average</th>
<th>Std.Dv</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. FP</td>
<td>4.8084</td>
<td>1.32610</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. EO</td>
<td>4.2442</td>
<td>.97187</td>
<td>.224*</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. EM</td>
<td>4.8444</td>
<td>1.17275</td>
<td>.308*</td>
<td>.294*</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. SC</td>
<td>5.2423</td>
<td>1.52104</td>
<td>.649*</td>
<td>.228*</td>
<td>.517*</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>5. ET</td>
<td>4.1718</td>
<td>1.72796</td>
<td>.527*</td>
<td>.170*</td>
<td>.355*</td>
<td>.525*</td>
<td>1.00</td>
</tr>
</tbody>
</table>

*: significant at 5%

Table 2 shows a summarize of a set of variables structure. As a set of measures represent one underlying construct, the factor analysis addresses challenge question on how well the measures represent construct and how many items represent a construct. Hence, the result will be a small number variables, based on condensing information derived from the measures (de Velis, 2012). This study considers average variance extracted (AVE), composite reliability (CR) and Cronbach’s alpha (CA). It appears that all latent variables have AVE greater than 0.50, which implies that convergent validity is accepted. Thereafter, CRs are greater than 0.80, indicate that measures are reliable, while CAs are greater than 0.7, which shows that the measures of all latent variables are consistent.

Table 2. Structure of variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>AVE</th>
<th>CR</th>
<th>CA</th>
<th>Communality</th>
</tr>
</thead>
<tbody>
<tr>
<td>EM</td>
<td>0.556893</td>
<td>0.833045</td>
<td>0.730651</td>
<td>0.556893</td>
</tr>
<tr>
<td>EM * ET</td>
<td>0.704349</td>
<td>0.966136</td>
<td>0.961635</td>
<td>0.704349</td>
</tr>
<tr>
<td>EO</td>
<td>0.646946</td>
<td>0.845859</td>
<td>0.734535</td>
<td>0.646946</td>
</tr>
<tr>
<td>EO * ET</td>
<td>0.783325</td>
<td>0.970175</td>
<td>0.965428</td>
<td>0.783325</td>
</tr>
<tr>
<td>ET</td>
<td>0.783126</td>
<td>0.915483</td>
<td>0.861749</td>
<td>0.783126</td>
</tr>
<tr>
<td>FP</td>
<td>0.652084</td>
<td>0.929044</td>
<td>0.910873</td>
<td>0.652084</td>
</tr>
<tr>
<td>SC</td>
<td>0.735792</td>
<td>0.917607</td>
<td>0.880314</td>
<td>0.735792</td>
</tr>
<tr>
<td>SC * ET</td>
<td>0.792853</td>
<td>0.978686</td>
<td>0.976255</td>
<td>0.792853</td>
</tr>
</tbody>
</table>
4.2 Path Analysis

Table 2 shows bootstrap output, which provides evidence that some proposed independent variables have significant impact on firm performance. Both entrepreneurial orientation (EO) and entrepreneurial management (EM) have no significant impact on firm performance (FP) with p>.05. Consequently, H1 and H2 are rejected. On the other hand, social capital (SC) has significant impact on firm performance (FP) with t=3.09 and p<.05, which implies that H3 is accepted.

Table 3. Bootstrap output

| Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | Standard Error (STERR) | T Statistics (|O/STERR)|  |
|---------------------|-----------------|---------------------------|------------------------|-----------------|---|
| EM -> FP            | 0.089792        | 0.097820                  | 0.270247               | 0.270247        | 0.332259 |
| EM * ET -> FP       | 0.062205        | 0.019939                  | 0.513444               | 0.513444        | 0.121152 |
| EO -> FP            | -0.308232       | -0.279668                 | 0.266303               | 0.266303        | 1.157447 |
| EO * ET -> FP       | 1.038375        | 0.986823                  | 0.495630               | 0.495630        | 2.095062 |
| ET -> FP            | 0.731968        | 0.785835                  | 0.323182               | 0.323182        | 2.264876 |
| SC -> FP            | 1.091013        | 1.071188                  | 0.289211               | 0.289211        | 3.772378 |
| SC * ET -> FP       | -1.789107       | -1.748776                 | 0.576382               | 0.576382        | 3.104029 |

4.3 Moderating Test

To identify the moderating effect of ET (H4, H5 and H6), it is necessary to consider the impact of independent variables, moderating variable, and interaction. Interaction arises to explain how simultaneous influence of two variables. Since H1 and H2 are rejected, then H4 and H5 are also rejected. Figure 1 shows negative coefficient, which indicates that SC has negative impact on FP. This result supports the previous literature (Pirolo, 2010 and Ahmadi (2011). Bootstrap output also shows that environmental turbulence (ET) has significant impact on firm performance.
performance with $t = 1.89$ and alpha <0.05 (second degree of significance level). In addition, SC x ET also has significant impact with $t=3.035$ and alpha <0.01, which implies that H6 is accepted. Figure 2 shows how moderating effect of ET influences the impact of SC on FP. This indicates that H6 is accepted, which means that the different level of ET has different impact on the relation between SC and FP. The finding shows that ET dampens the positive impact of SC on FP. Under low ET, SC provide positive impact on FP. This indicates that firms can gain greater performance with greater investment in SC with certain condition, low environment turbulence. However, SC has negative impact on FP during high ET.

![Figure 2. Moderating effect of environmental turbulence](image)

5. Discussion

The social capital as valuable resource plays pivotal role on firm performance. As such resource for cohesion and structural relationship is considered with investment in social networks, the result provides evident that in the context of Indonesia SMEs, social with strong internal and external networks has negative impact on firm performance. From resource-based view, this study indicates that investment in such valuable resources does not foster firm performance during high environmental turbulence. However, during low environmental turbulence, firms with greater social capital experiences greater firm performance. On the other hand, under high environmental turbulence, firm with greater social capital suffers from poor firm performance. This finding is more relevant with Tang et al. (2010) and Chawla et al. (2012).

The evidence suggests that the benefit of investment in social capital will yield during the low environmental turbulence. Though technological can provide more opportunities in industry, but pressure of greater technology turbulence causes many SMEs suffers due to their poor capacity to adopt new technology. Hence, responsiveness is crucial for SMEs to deal with customer needs within technological turbulence. In addition, higher levels of market turbulence bring about uncertainty to SMEs due to less accurate forecast, hence they can’t respond dynamic composition of customers and their preferences. This causes increasing uncertainty due to heightened market turbulence in which firms need to deal with. Marketing operations is necessary to respond the changing customer’s preference (Zhang and Duan 2010). This effort to respond market turbulence can be associated with business expansion in which not all of SMEs can do (Didonet, et al. 2012). In the context of competitiveness, the more new entrants in the industry, the more pressure on SMEs to worry about their competitiveness due to many new entrant in their industry. In the short-run entry may, competition brings about price competition and sparks off lower revenues for incumbents firms. Competitive intensity is the extent to which companies face competition over the output market resources they need to live and grow.

It appears that both entrepreneurial orientation (EO) and entrepreneurial management (EM) have no significant impact on firm performance (FP). There are some alternative reasons which may provide an answer. First, it shows that there is no direct effect of EO on FP, as well as effect of EM on FP. Hence, the future study should identify some mediating variable which can explain the generative process of such entrepreneurial resources to the competitiveness of SMEs. Secondly, the insignificant impact of EO on FP come from lack of identification the elements of EO, such as relationship between risk and failure (Andersén, 2010).

The study has some limitations, which needs to be addressed in the future research. First, the sample frame is limited to SMEs located in the Surabaya, Indonesia, the second big metropolitan area. The different socio economic culture might provide different impact on firm performance. Second is only one respondent to each
firm who contribute to this research. Everyone in family businesses has different interest, such as the first and second generation of owner managers, which implies on difference preferences. Third, this study uses cross section data, which seems to provide snap-shot observation. It would be worthwhile to study origin of dynamic environmental turbulence in time series context, which can support this study regarding the magnitude of environmental turbulence.

6. Conclusion

The study confirms the mediating effect of environmental turbulence on the relationship between social capital and firm performance. This finding provides more fundamental issues on both resource based view (RBV) and contingency theory (CT) that the impact of resource deployment yield greater performance under certain condition, such as low environmental turbulence. It has been confirmed that SMEs with more investment in social capital are generally suffering from environmental turbulence because of their capacity for adaptation to the dynamic business environment. In addition, this shows that both entrepreneurial orientation and entrepreneurial management have no significant impact on firm performance, which is almost unexplored in the context of SMEs.

References


Wei, Y., Frankwick, G., & Nguyen, B. (2012). Should firms consider employee input in reward system design?

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