

A Model of Leadership, Strategy and Company Structure in Innovative Indonesian SME

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Abstract

This study examined the relationship between leadership style and the innovative behaviour of small-to-medium enterprises (SMEs) in Indonesia. Factors, influencing innovativeness, were determined by using quantitative and qualitative data analysis methods. The study suggested that strategic management in Indonesian SMEs is enacted in a highly personalised manner and is strongly influenced by the personality, disposition, experience and ability of the owner-manager. Leadership is the most important factor in shaping an innovation culture and the organisation's innovativeness. Also important is the firm's structure and strategy, as well as education levels of the owner-manager. Of less importance were the external environment, and government or business support networks. A final model of leadership and innovation within SME in Indonesia is presented.

Keywords: *Small Business, Entrepreneurship, Innovation, Leadership, Asian Management*

Culture, Leadership and Innovation in SMEs

Innovation is a key driver in enhancing global economic competitiveness (Birchfield, 2000). It is a key factor in success within increasingly knowledge-based and hyper-competitive environments (Johannessen et al., 2001). However, gaps remain in our understanding of why some organisations innovate more successfully than others (Troy et al., 2001). For example, while culture is recognised as having a strong influence on creativity and innovation, research into the relationship between culture and innovation is sparse (Kwang, 2001), more like a “black box” in which relationships are hard to determine (Shane, 1995). More information is required to assist in opening this “black box”, and identify the forces influencing an “innovation-supportive culture” (Chandler et al., 2000) within the organisation, and the impact that leadership may have

on this. Leadership and company culture have been identified as two of the most important variables in enhancing innovation within organisations (Kuczmarski, 1995), especially in Small to Medium-sized Enterprises (SME), since they are constrained by limited funds and skills.

Therefore, there is a need for enhanced research methodologies capable of properly studying innovation within industry (Soutar & McNeil, 1993), particularly within developing economies. This study attempts to better understand innovative behaviour within Indonesian SME and to reveal some important factors affecting the ability of SME within an economy such as Indonesia's to innovate. This study also considered whether external environment factors, such as government support and business networks, play a role in determining the innovative behaviour of Indonesian SME.

Organisational Structure, Complexity and Interconnection

Innovation studies frequently emphasize the interrelationship between company structure and the ability to either encourage or resist innovation. According to Christiansen (2000), organisation structure is a primary influence within the firm on job design, communication flow and resource allocation, thereby impacting on innovative behaviour. An organisation's internal structure should be viewed not as an end in itself but as a potential instrument for innovation (Light, 1998). Organisational structure has been recognized as containing several variables likely to impact on innovativeness (Rogers, 1995; Soutar & McNeil, 1993). At least four key elements of organisational structure are important in this context: i) centralization and formalization, ii) complexity, iii) interconnectedness, and iv) the degree of organisational slack.

Centralization is defined as the degree that power and control in a system are concentrated in the hands of relatively few individuals (Rogers, 1995). This is usually measured in terms of the overall hierarchy within the organisation. Flatter structures with greater devolution of authority have been found to encourage innovation (Smith, 2000). Formalization refers to the degree to which an organisation emphasizes adherence to formal rules and procedures in the role

performance of its members (Rogers, 1995). The dominant perspective is that formalization hinders idea generation due to the inflexibility that constrains creativity as group members facing stricter rules and procedures who are likely to respond to problems with routine solutions rather than new ideas (Troy et al., 2001).

Complexity refers to the degree to which an organisation's members possess a relatively high level of knowledge and expertise, usually measured by the members' range of occupational specialties and their degree of professionalism expressed by formal training (Rogers, 1995). Complexity encourages the organisation's members to envision and propose innovations (Woodman, 1993), knowledge intensive organisations also tend to be more innovative (Freel, 2000).

Interconnectedness is the degree to which the units in a social system are linked by interpersonal networks (Rogers, 1995). New ideas can flow more easily among an organisation's members if the organisation has higher network interconnectedness, leading to greater information sharing and openness (Troy et al., 2001). Interconnectedness could be measured by the degree that organisation's members are able to communicate easily and freely with each other and with members of management (Ruppel & Harrington, 2000). The cumulative evidence suggests that openness of communication facilitates the creative output of the organisation's members (Troy et al., 2001).

Organisational slack is defined as the degree to which uncommitted resources are available to an organisation (Rogers, 1995) to adapt to internal and external pressures (Ahmed, 1998). Organisational slack has been correlated positively with innovation and can be measured by the availability of resources provided by the company. While some resources are relatively small others are large (e.g. financing major R&D projects). This might also include the availability of financial rewards and incentives to creative and innovative employees. Whether large or small,

the effect of the innovation investment funds was to stimulate ideas within the organisation (Light, 1998).

The Role of Leadership in Creating Innovative Culture

Leadership, particularly from the owner-manager or Chief Executive Officer (CEO), is important in encouraging innovation and supplying the management and resources to make it happen (Brunner, 2001). Scott and Bruce (1994) have suggested that leadership affects individual innovative behaviour directly and indirectly through perceptions of a 'climate' – sub-unit of culture – for innovation. The leaders of innovative organisations made their greatest contributions for other members to succeed, by caring most about the soil in which innovation and ordinary good practice grow (Light, 1998). Although there is a lack of a common classification system for leadership theory (Reser & Sarros, 2000), the two main leadership styles considered most appropriate to understanding its potential impact on innovation are transformational and transactional leadership (Parry, 2000b). According to Birnbaum (1999), there are several major differences between the two types of leadership, which are discussed in later sections. Transformational leadership emphasizes the potential power of leaders; transactional leadership notes the potential influence of followers. Transformational leadership looks for major changes of policy and direction; transactional leadership is likely to move in smaller, incremental steps. Transformational leadership captures their imagination; transactional leadership is more ordinary and less dramatic (Birnbaum, 1999).

Bass (1990) defined transformational leadership as a superior form of leadership that occurs when leaders broaden and elevate the interests of their employees, when they generate awareness and acceptance of the purposes and the mission of the group and when they stir their employees to look beyond their own self-interest for the good of the group. Transformational leadership consists of four factors – charismatic leadership or idealized influence, inspirational leadership or motivation, intellectual stimulation, and individualized consideration (Bass, 1985). By contrast

transactional leadership is based on the principle of a fair social exchange in which leaders provide their followers with a sense of direction and recognize their needs and efforts. In exchange, through mutual regard and two-way influence, followers provide the leader with responsiveness to the leader's efforts (Birnbaum, 1999). In the transactional approach, leaders are seen as people who motivate and guide their followers in the direction of established goals by clarifying their role and their task (Aaltio-Marjosola & Takala, 2000). It consists of three characteristics, which include contingent reward, active and passive management-by-exception, and laissez faire management (Barling et al., 2000).

Methodology

The methodology used in this study involved a survey of SME manufacturers within Indonesia followed subsequently by a series of in-depth case studies. This approach provided an opportunity to conduct exploratory research into specific dimensions of how innovation is fostered in Indonesian SME. The survey instrument used in the study comprised a series of measures of organisational innovativeness originally tested by Soutar and McNeil (1993) with Australian firms, and Rogers (1995) study of innovation and organisational structure. A series of five-point rating scales were employed to measure respondent perceptions of innovation activity within the firm as well as the four key organisation structure variables identified mentioned above. Leadership was examined using items designed to measure transactional or transformational types (Parry, 2000).

All surveys were targeted at the owner-managers or CEO of the surveyed firms. The final sample drawn for the study comprised 170 SME from various industries in several locations in Indonesia. This sample comprised firms from a wide range of industries with 50 percent from Jakarta and the rest from elsewhere in Java or Bali. A comparison of the final sample with official Indonesian statistics on SME suggests that the sample was highly representative.

The quantitative analysis provided a useful framework within which to do the qualitative study where most of the propositions would be tested. This permitted the identification of high, moderate and low innovation firms as well as high and low transformational leadership within the sample. From each of these six groups the study carefully selected at least one company that fit into the profile to be included in the multiple case studies analysis. Of the six case study firms selected a profile was able to be developed using the quantitative analysis that classified it as a high, medium or low innovator, and as having a predominately transformational or transactional leadership style within its owner-manager. All firms were small in size and engaged in manufacturing.

Data Analysis

Data analysis comprised initial examination of the descriptive statistics followed by a principal component ‘factor’ analysis performed to achieve both a degree of data reduction and to examine the underlying structure of the data and ensure no problems may exist with multicollinearity. A final step involved development of a multiple regression model using a step-wise approach to test the propositions outlined for the study. The dependent variable used in this study was the same “innovation score” originally employed by Soutar and McNeil (1993). “Leadership Score” was also computed by having mean scores for the 15 leadership style-related questions for each of the SMEs in the study. By using cross-tabulation in the SPSS and descriptive analysis, the study managed six different SME groups with different profiles. From each of these six groups the study carefully selected at least one company that fits into the profile to be included in the multiple case studies analysis. Data reduction, data display, and drawing conclusions were activities of data analysis occurring interactively throughout the qualitative data analysis. All the three activities were, therefore, combined to produce a comprehensive analysis of the study by using pattern matching and the data display techniques (Yin, 1989).

Key Findings from the Quantitative Study

The first analytical phase of the study, using descriptive quantitative analysis from survey results, identified the profiling of six different groups of SME with regard to their innovation and leadership capabilities. This work is only summarised here and further details can be found in Ratam and Mazzarol (2003).

The ideal profile of an SME that scored high in both criteria included: having a simple organisational structure, a flow of internal communication that moved more horizontally than vertically, a long-term vision, some but not many rules and procedures, a combination of high and low educated employees, and a moderate level of funding for future innovations. The top management of this type of SME displayed a strong commitment to innovation that encouraged an internal culture supportive of innovation and high acceptance of risk. These senior managers had high transformational styles of leadership, coupled with an acceptance of change, and openness in their management practice. Interestingly, it was found that they maintained their innovativeness without much assistance from government or business networks, although it should be noted that within Indonesia the level of government support was found to be relatively limited.

From the factor and correlation analysis, the study suggests five important variables that may have a strong relationship with the firm's innovative capabilities. These included: i) top management support for innovation including their ability to set a clear vision for how it was to be achieved; ii) the firm's ability to follow emergent strategies initiated by customers, management and employees; iii) the level of resources, rewards and incentives provided to employees for innovation; iv) the level of transformational leadership shown by the CEO; and v) the senior manager's acceptance of change when faced with emergent strategies. A regression analysis identified two additional variables that appear to have meaningful relationships with the innovation skills of SME. These were: i) the 'flatness' of the organisation; and ii) the firm's ability to adopt a long-term strategic outlook.

It should be noted that SME owner-managers have all of these important innovation variables in their control as they make all the major decisions in their company. Thus, the owner-manager of the small firm is the driving force for the company and their capacity to secure a good financial return for themselves. Much of the focus on innovation has traditionally been on the larger organisation, with its need to find a balance between creativity and control. For the SME, the owner-manager is the key to whether the firm generates innovation or whether it does not. As these findings suggest, the owner-manager of the SME must be willing to seek innovation, and follow emerging opportunities if they appear likely to succeed. Their sense of long-term vision for the future of the company also needs to be balanced by a flexibility and willingness to change. Finally, the innovative owner-manager needs a transformational leadership style that supports an organisational culture that is embracing of innovation among employees.

Key Findings from the Qualitative Study

The case studies provide illustrations of how the economic context and the organisational context of SME affect the capacity of organisations to involve into innovative activities. Table 1 shows the six case study firms and their respective characteristics.

Table 1: Case Study Firms – Leadership and Innovation Profiles

<i>Innovation level</i>	<i>Transactional Leadership style</i>	<i>Transformational Leadership style</i>
Low	Firm A: <ul style="list-style-type: none"> - Shoe manufacturer Jakarta - Family business of 20 years - 6 employees - Autocratic leadership style - No special innovation system or rewards for staff - Limited vision 	Firm B: <ul style="list-style-type: none"> - Shoe manufacturer Bandung - Family business start up - 7 employees - Flexible consultative leadership style - Open communication style - Long term vision
Medium	Firm C: <ul style="list-style-type: none"> - Car batteries & plastics manufacturer Jakarta - 160 employees - Bureaucratic leadership style - No special innovation system or rewards for staff - Focused on process 	Firm B: <ul style="list-style-type: none"> - Precision casting Jakarta - 14 years in operation - 245 employees - Formal rules with flexibility - Focused on process but seeking to make company world's best practice
High	Firm E:	Firm F:

- Shoe manufacturer Bandung	- Furniture manufacturer Jakarta
- 10 years in operation	- business start up
- 50 employees	- 20 employees
- Centralised decision making	- Flexible consultative leadership style
- Strong vision	- Clear rules and procedures to maintain quality
- Rewards innovation from employees	- Open communication style

Analysis of these cases suggests that the two specific factors of internal culture that appear to have a strong influence on SME innovation levels are: i) the level of education of leaders and employees, and ii) the support provided for innovation by the leader (CEO), especially in the form of organisational slack and formal product development system. By contrast the level of interconnectedness found within the cases did not appear to have a strong influence on innovation levels. Some firms achieved good innovation outcomes (as measured by product or process innovations) while expressing difficulties in internal communication between employees and managers. This can be explained in terms of the central role of the owner-manager as a key driver of innovation within the SME. He or she is responsible for all major decisions relating to product or process development, and this does not leave much room for discussions with the staff. This would then effect how the subordinates perceive their communication relationship with the leader. Similar findings related to firm structure and formalisation levels. As noted above the lack of both organisational scale and scope within small firms make it more likely that a dominant ‘entrepreneurial’ leader (owner-manager) will provide the focal point for innovation. Structure is therefore focused around this leader and the firm’s formalisation is based on the leader’s authority.

The case studies also suggest that good leadership within an innovative SME may require a combination of transformational and transactional leadership styles. Further, this may be especially true within Indonesian SME. It is important to have a base of transactional leadership style to counter the low education levels found among many employees in Indonesia. However, transformational styles of leadership are also important to foster innovation and encourage

motivation and loyalty. Because the management is concentrated into one or two people, who must provide all leadership and also lead innovation, it is unsurprising that they must be a combination of both the transactional manager and the transformational leader.

A Model for Innovation in the SME

The study results suggest a model (see Figure 1) where the organisation's innovativeness is more strongly influenced by three factors – i) leadership style, ii) internal characteristics, and iii) company strategy – and is not greatly influenced by the external environment, at least in this study. The owner-managers become the filter for the external environment as they are usually closely monitoring their markets and customers and seeking to gain a competitive advantage or edge by using innovation. The leadership style of the owner-manager also has direct and indirect effects to the organisational innovativeness through the establishment of supporting culture for innovation in the SME, which are shown, for example, in the internal organisational structure and company strategy.

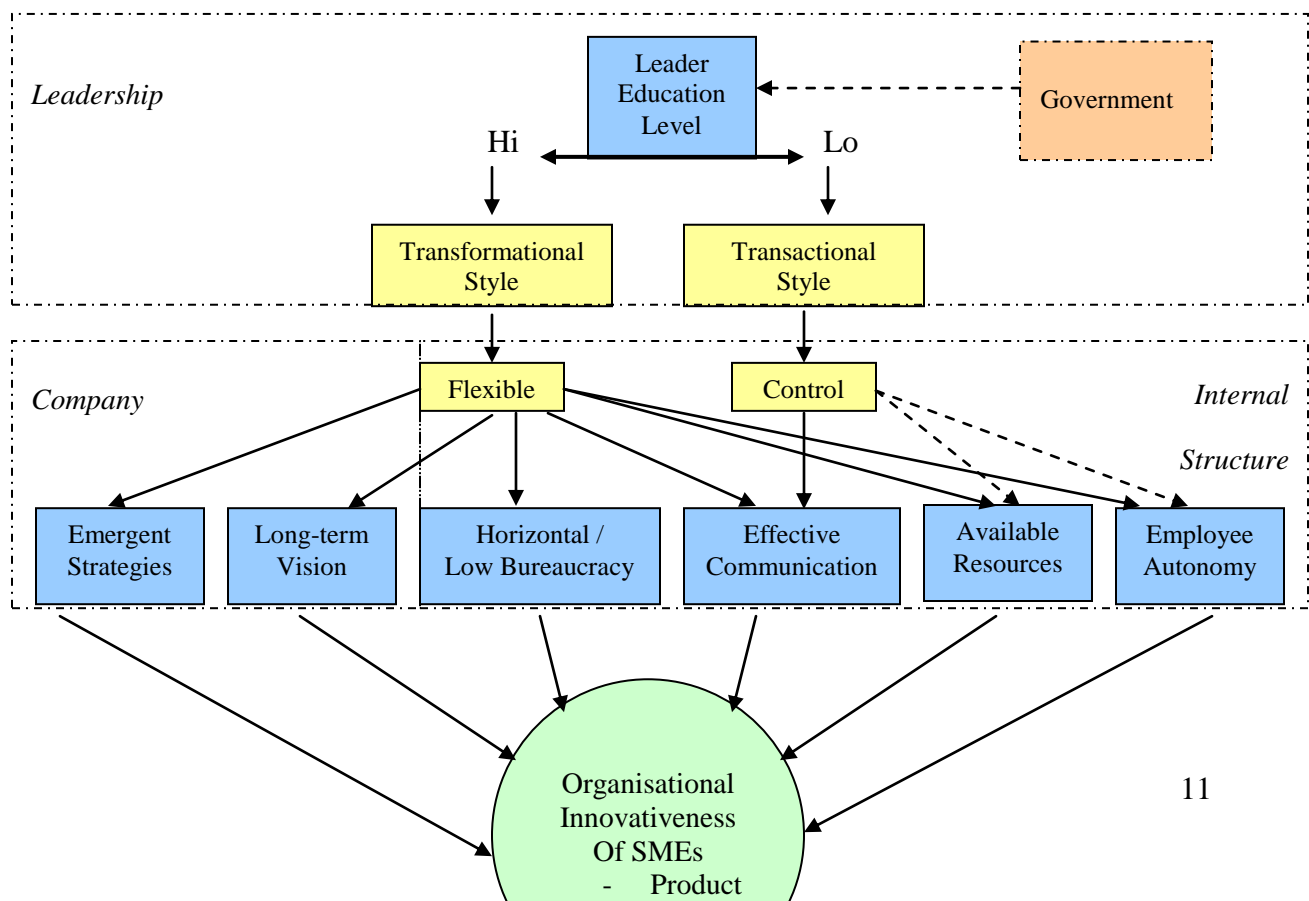


Figure 1: SME Innovation

This model suggests that the innovative capacity of an SME is strongly influenced by the commitment and attitude of the top leader, as shown in his or her leadership style and the form of internal structure and company strategy. Governments can enhance their national innovation capability through SME by focusing on the development of the owner-manager's education.

Leadership Styles

The study indicates that leadership is likely to be the key driver of innovation in Indonesian SMEs, and culture is its main enabler. Building an innovative organisation requires competent innovations, collaborative peers and colleagues, a supporting management, and consideration of the internal management system and the external system in which the organisation operates. The right leader would be able to create the right culture, develop the right strategy and vision, and communicate it throughout the organisation, choose the right process and procedures, and create a work environment in which innovation can flourish. Landberg and Simeone (2002) cited in their study that innovation workshops, initiative management structures, and balanced portfolio of management approaches were all necessary tools to enable implementation of new innovative business efforts. The advocacy of an owner-manager should be how to balance safety and security for employees with innovation and creativity encouragement. This is consistent with what Eisenhardt (1989) found in his study that what successful companies had in common was a balance between the structure necessary for stability and the 'managed chaos' required for innovation. Jong and Hartog (2003) also concluded in their study that leadership can be an important determinant of individual innovative behaviour, especially in small firms. They noted that current definitions of leadership reflect the assumption that it involves a process whereby

intentional influence is exerted by a person over other people to guide, structure, and facilitated activities and relationships in a group or organisation (Jong & Hartog, 2003).

In the case studies, all leaders showed that they have commitment in innovation and believed in its importance in surviving stricter competition. However, the degree of showing this commitment to innovation was the major factor explaining any differences in their levels of innovativeness. What stands out from these case studies was that the leaders' education level is important in influencing the balance between transformational and transactional leadership style. The higher the owner-manager's education level, the closer it is for the leader to find the right balance between control and flexibility to get the employees motivated and enhance their loyalties to achieve the goals of the company. The right leadership style would then increase the quality of the supervisor-subordinate relationship, which has been found to be strongly related to innovative behaviour (Scott & Bruce 1994). Transformational cultures need a base of transactional elements (Parry, 2000), and this may be true within Indonesian SME where employee education levels are frequently low and the organisational culture is "family like".

Internal Organisational Structure

However, leadership is not the only thing that counts. Leaders should be aware that the innovative behaviour of co-workers can be affected by other factors, such as strategy, climate, structure, resources, external contacts, firm characteristics, market characteristics and government policies to stimulate innovation (Jong & Hartog, 2003). The case studies and survey results of this study suggest that internal structure and company strategy are important situational characteristics. Essential internal organisational characteristics revealed from the survey analysis include: i) flatter organisational structures (e.g. low bureaucracy); ii) effective internal communication; iii) availability of resources to support innovation; and iv) employee autonomy.

Company Strategy

One of the most important qualities for the owner-manager is to think and act strategically. The owner-manager not only needs to overcome problems in their daily operations, but also needs to remind employees about their vision of becoming an innovative company. It is important for owner-managers to have long-term vision as well as the capacity to adopt and follow emergent strategies when opportunities arise.

External support

The study highlighted both the desire for additional government support among the SME, and the relative lack of such support within Indonesia. Government assistance programs in financing, marketing and education and training were all recognised as of potential value among the owners of these SME. Current policy within Indonesia is focusing on providing easier access to financing within the SME sector. While this is important, it does not address the critical areas of managerial education, leadership and development of innovation within the smaller companies.

Conclusions

This study is an initial attempt to see whether organisational culture, leadership characteristics and external innovative environment are related to innovative behaviour of SME. It contributes to the general theme of innovation determinants by using both quantitative survey and multiple-case study method to look into how and why specific dimensions of the three key elements foster or inhibit organisations innovativeness. The study concludes that strategic management in Indonesian SME is enacted in a highly personalised manner and is strongly influenced by the personality, disposition, experience and ability of the owner-manager. Leadership in SME, thus, is the most important factor affecting the organisation's innovativeness. In many developing economies, such as Indonesia, where government support and employee education are low, the owner-managers must rely upon their own leadership and drive to shape the company culture. To lead innovation, however, does not mean leading the creation of high-impact innovations or being an innovative genius. Rather, it means being innovative in the way the leaders lead, manage, and

build the organisation. The businesses that will lead the way are built not around a lot of heads and hands, but around a lot of hearts, around motivation, dedication, and commitment to find a good balance within the structure of organisations.

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