

Chapter 53

Innovation in Small and Medium-Sized Wood-Furniture Firms in Central Java, Indonesia

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Abstract The aim of this paper is to explore the perception of innovation within Indonesian SMEs in the wood-furniture industry in Central Java, Indonesia. Qualitative research was employed by interviewing SMEs managers/owners. The study showed that SMEs' perception of innovation was not necessarily related to 'newness' or 'novelty' as suggested by some scholars. The innovation carried out by the majority of SMEs in this study is likely to be considered as incremental innovation. The characteristics of the wood-furniture industry and SMEs are believed to contribute to the different perspectives concerning innovation than those reported in the literature. Even so, they are unlikely to prevent Indonesian SMEs to become entrepreneurial and competitive firms.

53.1 Introduction

The wood-furniture industry plays a very important role in the Indonesian economy, as this industry has great potential not only for domestic but also international trade. In the global market, Indonesia is one of the biggest furniture exporters in the world, along with China, Italy, Vietnam and Malaysia. Undoubtedly, this industry is recognised as having another important role in Indonesia as a source of foreign exchange. The wood-furniture industry in Indonesia is characterised as a resource-intensive¹ as well as labour-intensive industry. This industry employs approximately 2 million people directly, and an additional 8 million workers indirectly.

¹ A resource-intensive industry is an industry that utilise natural resources as materials, such as timber.

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Small and Medium Enterprises (SMEs)² are the major players in the wood furniture industry in Indonesia. With this large proportion, it is no surprise about the ability of SMEs to generate more employment than larger firms.

At present, Indonesian SMEs in the wood-furniture industry have to face the intense competition as more and more players, especially from Asian countries such as China, Malaysia and Vietnam, enter the global market. Previous studies suggested that innovation has become fundamental for achieving competitive advantage. By conducting innovation, firms are able to renew their market offerings, particularly as product and business- model life cycles are shortening. Innovation is crucial for firms that are operating under conditions of global competition, rapid technology advances and resource scarcity in order to survive and thrive [5].

As the important role of SMEs in nation's economy, there is no doubt that innovation activity in SMEs has attracted researchers' attention. Schumpeter suggested that SMEs were likely to be the source of most innovation. However, it has been argued that innovation in SMEs is limited due to the lack of resources and capabilities. For this reason, previous studies of innovation have mainly focused on large firms.

Despite agreement about the relevance of innovation in competitiveness, previous studies have revealed inconsistencies in conceptualising and measuring innovation that lead to inconclusive findings in the innovation literature. Some researchers [3] implied that innovation means different things to different people. The lack of consensus about innovation definition has also been suggested as a major reason why findings in the innovation literature are inconsistent [2, 4].

This article attempts to explore the innovation perceptions within Indonesian SMEs in the wood-furniture industry in Central Java, Indonesia. Specifically this article addresses research questions: (1) How Indonesian SMEs in the wood-furniture industry in Central Java define innovation? and (2) How Indonesian SMEs in the wood-furniture industry in Central Java perform innovation in their firms?

To answer these research questions, a qualitative research was employed by conducting in-depth interviews with managers/owners of SMEs in the wood-furniture industry in Central Java in order to identify their perspectives on innovation.

This study contributes to entrepreneurship research in three respects. First, this study attempts to provide more in-depth understanding on how Indonesian SMEs in the wood-furniture industry in Central Java perceive and perform innovation in their firms. Second, this study focuses on SMEs. Despite the widely acknowledge important of innovation in SMEs, the empirical studies lack evidence regarding the way SMEs define and practice innovation for responding to expectation of better performance in order to survive and remain competitive. Third, this study employs a qualitative research that is considered by entrepreneurship scholars as a more appropriate approach in researching entrepreneurship and SMEs, particularly in the developing countries.

² SMEs are defined by Statistics Indonesia (Badan Pusat Statistik) (2008) as firms that employ five to ninety-nine workers.

The article is structured as follows. Section 2 briefly reviews literature about innovation, particularly in entrepreneurship and SMEs. Section 3 describes methodology. Section 4 discusses empirical results. Section 5 presents discussion in order to answer the proposed research questions. Finally, some conclusions are provided.

53.2 Literature Review

Innovation is a condition inherent in a domain of entrepreneurship. Schumpeter [1] emphasised that innovation is the core of entrepreneurship. He was also one of the first scholars to argue that innovation is the fundamental endeavour of entrepreneurial organisations for developing new products or inventing new processes [1], and that innovation can contribute to a firm's competitive advantage [5]. Likewise, Covin and Miles [4] believed that innovation is an essential part of a business strategy and that entrepreneurship cannot exist without it. Johnes and Davies suggested three main types of innovation:

1. Product innovation, which refers to new product options and their development. It is commonly conducted in technology-driven firms to facilitate their competitive positioning.
2. Process innovation, which refers to the improvement of internal capabilities, including firms' operations and capacities.
3. Market innovation, which refers to the selection of new market segments that are best served by particular firms.

Innovative firms can perform one or more types of innovation, as they are not mutually exclusive. The level of innovations may vary depending on the characteristics of the firms and the performance achieved by the company.

Innovation is always associated with an attribute of 'newness' [5]. However, the scope of 'newness' has been conceptualised inconsistently in the literature. This is understandable, since to date there has been no consensus in defining innovation, despite agreement about the relevance of innovation in competitiveness. This lack of agreement about its innovation definition has been suggested as a major reason why findings in the innovation literature are inconsistent [3].

Since 'newness' is considered as a relative term, some researchers [5] suggested that innovation can be categorised based on *whose* perspective this degree of newness is viewed and *what* is new. Applying this criterion, innovation is distinguished into radical and incremental innovation. Radical innovation refers to the introduction of products, services or technologies that are perceived to be new to the firm as well as to the market or industry. This type of innovation also implies substantial changes in the activities of an organisation that will lead to an increase in the existing knowledge of the firm. On the other hand, incremental innovation refers to innovation that is perceived to be new to the firm only. It only requires a minor improvement to current practice. Dewar and Dutton, however, posited that the distinction between incremental and radical innovation "is easier to intuit than to define or measure", such that different perceptions may exist in classifying innovation.

53.3 Methodology

Even though both quantitative and qualitative methodologies have been applied in entrepreneurship research, quantitative research based on empirical data has dominated previous entrepreneurship and SME studies. The use of quantitative research in entrepreneurship studies, however, has drawn criticism. This approach is considered is not able to describe the entrepreneurial process of the firm. Hill and Wright argued that quantitative research is unable to provide insights into people's behaviour. They emphasised that researchers should recognise the concept of multiple realities, which means that "each individual entrepreneur/owner-manager constructs his or her own reality according to how he or she interprets and perceives the world". Hill and Wright also suggested that a qualitative approach is more appropriate in researching SMEs.

According to Marschan-Piekkari and Welch, lack of secondary data to support random samples, unfamiliarity of informants with questionnaires, and cultures that highlight social relationships (including face-to-face communication) and trust, are among the factors that contribute to the preference for qualitative rather than quantitative approaches in studying emerging economies.

For that reason, this study employed qualitative research as this allows the researcher to have a deeper understanding about the participants' personal experiences.

53.3.1 Data Collection

The wood-furniture in Central Java was selected as a single industry for this study due to its significant contribution to the regional and national economies. The informants in this study are owners/managers of SMEs. Based on purposive sampling, thirteen SMEs in the wood furniture industry in Central Java were selected to be interviewed. Semi-structured interviews with owners/managers of SMEs were conducted in this study; that is, a list of open-ended questions on specific topics in this study was used as a guideline for the researcher to carry out the interview and to allow informants flexibility in answering. This method enabled the researcher to ask other relevant questions not on the list.

53.3.2 Data Analysis

Trustworthiness was addressed in this study. This means that this study complied with established criteria by following a logical research design throughout. The research design, including data-collection methods and data analysis, was cautiously planned and implemented. Trustworthiness contains four criteria: credibility, transferability, dependability and confirmability [18].

All interviews with informants were recorded and later transcribed in Indonesian. All transcriptions were then translated into English. Field notes, collected documents

and photos relevant to this study were sorted and examined to complement the data acquired from interviews.

Content analysis was applied in analysing qualitative data in this study. It provides a replicable methodology to access deep individual or collective structures such as values, intentions and attitudes. It also allows flexibility for researchers in analysing data.

53.4 Empirical Findings

53.4.1 Profiles of SMEs Informants

All informants in this study were indigenous Indonesian (*pribumi*) from a Javanese ethnic background. *Pribumi* SMEs are the major players in the wood-furniture industry. Of the thirteen SME owners/managers interviewed for this study, eleven were business founders, and only two were the second generation to own the family business. The SME owners/managers interviewed in this study employed between seven and sixty-five full-time workers. When their full-time workforce was not able to finish the work in time, the owners/managers would hire part-time workers.

Most SMEs in this study are located in clusters that were established naturally. SMEs in this cluster are mostly household-based firms, meaning that their workshops are located in or next to their houses. Only three SME informants were located in a cluster that was developed by the Government as a pilot project for SMEs in the furniture industry in Central Java.

The wood furniture produced by SMEs can be differentiated into indoor and outdoor (garden) furniture. The wood-furniture industry in Indonesia is characterised as market-driven, or more specifically buyer-driven: the market or buyer determines the products that the producers will make.

All SMEs in this study depended heavily on foreign markets, since their main products were intended to serve these markets. Nonetheless, only three informants exported their product directly to their buyers overseas. The majority of informants were suppliers or subcontractors for larger workshops or buyers/agents, who then exported the furniture overseas. Few informants sold their product directly to final customers, either domestic or foreign.

Subcontracting is the key characteristic in the relationship between players in the wood-furniture industry. In this relationship, SMEs that receive orders from local as well foreign buyers may subcontract their part of the production process to more specialised small firms and craftsmen.

The majority of informants were not members of *ASMINDO* (Indonesian Furniture Producers Association), since they thought *ASMINDO* was only for large firms in the furniture industry. Furthermore, they were reluctant to pay a membership fee that was relatively expensive for them. As a consequence, they never had any assistance from this organisation in doing their business.

Three types of innovation were identified in this study: product, market and process innovations.

53.4.1.1 Product Innovation

Product innovation demonstrated by informants SMEs can be categorised into three types: augmented product design, new product design and global product design.

Augmented Product-Design

This refers to the ability of SMEs to improve the existing design provided by buyers or customers to enhance product value. Most informants commonly applied this practice by conducting minor improvements to the existing design for new orders from buyers. Sometimes they propose ideas to improve the product design, even though this is only a minor change in a product construction:

For design, they bring us a picture or a photo, sometimes a sample. Sometimes I propose a different design, a small change from the sample they brought here. For example, for a lounge, I proposed an additional buffer to its leg to make the lounge steadier. (R11)

Unlike new orders, the process for repeat order is simpler, as the owners/managers have already understood the buyer's design and specifications.

New Product Design

This refers to the ability of SMEs to seek, create and introduce new product designs to the market. Some informants who served final customers needed to provide new designs for them. The SMEs may offer custom-made product or new-design product to market. Designs should be continually updated so that SMEs can survive in this industry.

Global Product Design

This refers to a firm's ability to produce products that meet global standards. All informants interviewed in this study produce products for export. When they began to receive international orders, directly or indirectly, SMEs were introduced to global product standards. In turn, this influences the SMEs' generations-old furniture making practices.

53.4.1.2 Sources of Innovation

The sources of ideas for product design can be anywhere. Some informants picked up ideas for their new products from other furniture makers in their surrounding

area. Trade fairs are also a common place for SMEs to get ideas from other furniture makers. Due to the lack of awareness of intellectual property rights and protection, counterfeiting is a common practice in the furniture industry.

So far, the majority of informants have relied on buyer or customer suggestions as the primary sources of ideas for innovation. One informant mentioned that an order for a customised product persuaded him to be innovative.

From a customised order, I can produce new product designs because customers' demands represent the real customers' voices. So our products have to be new at all times, because without innovation we cannot compete with others. (R13)

Interviews with the informants in this study disclosed that efforts to produce innovation in their firms originated with the firms themselves, rather than with Government initiatives. The Government, according to the informants, has not provided any assistance in encouraging innovation. Likewise, since almost all informants were not members of *ASMINDO*, they have never obtained any support from it.

53.4.1.3 Market Innovation

The interviews revealed that the majority of informants were involved in informal and unplanned marketing efforts. The main reason given by informants for not conducting formal marketing activities is because owners/managers are the only person responsible for all functions in the firm, so their time has been fully occupied with managing technical and managerial activities in the firm, leaving no time for marketing. Other reasons, such as capital constraint, lack of skilled workers and satisfied with the current buyer or current market were other reasons mentioned by informants that inhibit them from conducting marketing activities to expand their markets.

The SME informants commonly practiced four marketing strategies: word-of-mouth marketing, participation in trade fairs, showrooms and websites. The majority of informants relied heavily on word-of-mouth marketing. They used their networks, such as friends and relatives, to promote their products. SMEs' awareness of the importance of marketing for their business survival and sustainability is shown by some informants. Four out of thirteen informants participated in trade fairs, either regularly or irregularly, with the hope of meeting potential buyers. Only two informants interviewed stated that they displayed their products in showrooms (in these cases, located in a busy street) to attract potential customers or buyers. The majority of informants, who did not have showrooms, were located in clusters that were mostly in villages. Few informants used a website to promote their products as this method is largely determined by the particular SMEs' ability to master information technology.

53.4.1.4 Process Innovation

The majority of informants applied modest equipment and technology in their production process. Only two informants have set up relatively modern automated machines in their workshops. These two informants were relatively young (in their

early thirties) and had graduated from universities. They had not had any experience in the furniture business before managing the current family business. Their companies were considered to be growing, with more full-time employees than those of other informants. This suggests that age and educational background are likely some of the factors influencing the willingness to change from existing SMEs practices in the furniture industry. Besides, since being innovative in technology requires financial support, which is unlikely to be available for the majority of SMEs, only companies that have relatively easy access to finance are keen to engage in new technology.

53.5 Discussion

53.5.1 SMEs' Perception on Innovation

The SMEs in this study perceived innovation as an effort to offer any improvements in their product, market and/or process to be competitive on the market and in response to customer needs; in turn, this may generate a profit for their firms. The majority of the informants considered that their firms were innovative by producing some changes, which were perceived to be new for the firms, even though they might not be new for the industry. In other words, their perception of innovation was not necessarily related to 'newness' or 'novelty' as suggested by some scholars [e.g., 4]. The informants' perception of innovation is more related to their creativity in response to customer needs, even if it only involves minor modifications to their products, markets and/or processes to enhance product value. This finding supports studies by Coulthard [3], Massa and Testa, and Wang and Zhang, who found that innovation is interpreted by their samples not only as new ideas, but in terms of modifications of existing products, processes and markets.

53.5.2 Innovation in Indonesian SMEs in the Wood-Furniture Industry in Central Java

Two types of innovation—incremental and radical—are employed in this discussion to represent innovation activities implemented by informants. However, these two terms have not been used within the interviews in this study. The innovation carried out by the majority of SMEs informants in this study is likely to be considered as incremental innovation, as it constitutes minor changes or improvements from existing products, markets and processes.

The tendency of SMEs in this study to perform incremental innovation rather than radical innovation may be related to the subcontracting characteristic in the relationship between actors in the wood-furniture industry. In this buyer-driven innovation, SMEs have limited authority to decide or to suggest new product design.

This practice is common in SMEs, as McCarthy, Perreault and Quester suggested: “Sometimes the buyer will design a product—and simply ask the supplier to build and deliver it at a fair price.”

Furthermore, the furniture market is not as dynamic as other markets such as apparel, electronics and information technology, in which product life cycles are shortening as a result of constantly changing market preferences and technology turbulence. Therefore, the furniture sector is considered as a low-technology industry, and this may cause SMEs in this industry to be unwilling to invest in technology. The traditional process of making hand-carved wood furniture drives its market value to be significantly higher than machine-carved. In other words, hand-carved wood furniture does not need high-technology machines. This implies that for particular items of furniture, the market will not appreciate or value radical innovation in the firm’s production processes. This is in line with Zahra’s argument that sometimes “investing in new and emerging technologies may not pay off because they may not reach commercialisation or the market may fail to accept them”. As a consequence, markets are not willing to pay an extra cost for the product. For this reason, Schiller and Schiller suggested that a huge leap in mastery technology and management is not necessary in the furniture industry, particularly in Indonesia.

The tendency of SMEs in this study to perform incremental innovation rather than radical innovation is consistent with other studies. Limitations on financing, time, marketing knowledge and access to information that drive the innovation process may all contribute to these conditions.

Some SME owners/managers in this study were reluctant to adopt market innovation to expand their markets. They felt comfortable enough with the existing markets they had served so far because serving these markets allowed them to meet their family needs as well as to cover firms’ expenses, including paying their workers. This interpretation supports a study conducted by Hankinson, Bartlett and Ducheneaut, who found that SMEs in the United Kingdom felt their firms were large enough, even though these owners/managers believed that they were not profitable enough. Besides, considerable research has shown that SME owners/managers do not view organisational growth as one of their principal objectives. This may explain why the majority of the informants in this study did not have any interest in expanding their markets or production facilities

The majority of SMEs in this study were engaged in product innovation, and only a few were involved in market and process innovation. This is consistent with Oke, Burke and Myers, who investigated innovation in United Kingdom SMEs. The rationale is that product-innovation outcomes can be perceived by the market directly and in a shorter time than market or process innovation. Besides, considerable research has shown that SME owners/managers do not view organisational growth as one of their principal objectives. This may explain why the majority of the informants in this study did not have any interest in expanding their markets or production facilities.

53.6 Conclusion

The characteristics of the wood-furniture industry (e.g., less dynamic, low technology involvement, buyer-driven innovation and lacking collective support from public and private institutions) and the characteristics of SMEs (e.g., lack of capital, time and access to information) might inhibit radical innovation conducted by SMEs in this study. Nevertheless, these characteristics are unlikely to prevent Indonesian SMEs in the wood-furniture industry in Central Java to become entrepreneurial and competitive firms.

The innovation literature that suggests firms that incline in radical innovation may perform better than those employ incremental innovation are not necessarily true. The innovation implementation has to consider its context: type of industry (e.g., wood-furniture) and characteristics of the firms (e.g., SMEs). This study contributes to entrepreneurship research by providing in-depth understanding of the innovation behaviour of Indonesian SMEs in the wood-furniture industry in Central Java, the focus on SMEs and the implementation of a qualitative research in the field that has been dominated by a quantitative research.

References

1. Aloulou, W., & Fayolle, A. (2005). A conceptual approach of entrepreneurial orientation within small business context. *Journal of Enterprising Culture*, 13(1), 21–45.
2. Becheikh, N., Landry, R., & Amara, N. (2006). Lessons from innovation empirical studies in the manufacturing sector: A systematic review of the literature from 1993–2003. *Technovation*, 26(5–6), 644–664.
3. Coulthard, M. (2007). The role of entrepreneurial orientation on firm performance and the potential influence of relational dynamism. *Journal of Global Business and Technology*, 3(1), 29–39.
4. Covin, J. G., & Miles, M. P. (1999). Corporate entrepreneurship and the pursuit of competitive advantage. *Entrepreneurship Theory and Practice Spring*, 23(3), 47–63.
5. Damanpour, F., & Wischnevsky, J. D. (2006). Research on innovation in organizations: Distinguishing innovation-generating from innovation-adopting organizations. *Journal of Engineering and Technology Management*, 23(4), 269–291.