

Firm performance model in small and medium enterprises (SMEs) based on learning orientation and innovation

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Abstract. This study investigated the relationship between learning orientation, innovation, and firm performance. A conceptual model and hypothesis were empirically examined using structural equation modelling. The study involved a questionnaire-based survey of owners of small and medium enterprises (SMEs) operating in Batu City, Indonesia. The results showed that both variables of learning orientation and innovation effect positively on firm performance. Additionally, learning orientation has positive effect innovation. This study has implication for SMEs aiming at increasing their firm performance based on learning orientation and innovation capability.

1. Introduction

In late 1990's, innovation became an essential agenda for managers to discuss. Innovation commonly was perceived as an imperative requirement of successfulness and sustainability of an organization. Furthermore, it turned into an interesting topic due to role in explaining sustained competitive advantage. Innovation as the development and use of new ideas or behaviors in organizations can be instigated in a new product, service, method of production (technical innovation) or a new market, and organizational structure or administrative system [1]. Innovation is critical since it makes an organization able to adapt to market change and meet new demand. Innovation also helps an organization to respond environmental changes [2]. It reflects the importance of innovation for organization in a recent business environment to help an organization facing both internal and external environment's turbulence [3-5].

Many researchers have found evidence for a relationship between innovation and performance [6-8]. Furthermore, Farrell [9] and Giniuniene and Jurksiene [10] argued that learning orientation is a source of firm's competitive advantage. In addition, learning orientation is important for a firm's competitive advantage and literature has generally focused on the effects of learning orientation on financial performance [11]. Finally, Keskin [12] indicates that the majority of empirical studies concerning innovation and its drivers focus on large scale companies in developed countries, while ignoring, to some extent, small firms in developing countries. Simon et al. [13] assert that the existence of innovation products is important for small industries. They argue that to satisfy customers, small industries must offer quality products. Many obstacles for small industries to innovate include limited financial resources, human resource quality, and risk that will arise if it fails [14, 15]



This study examined the relationships between learning orientation, innovation, and firm performance in the SMEs apple product-based business in Batu City, Indonesia. The hypothesis research model is developed and tested using structural equation modeling. This paper does not just testify the effect of learning orientation on firm performance, but also tests how this mechanism works through analyzing the mediating effect of innovation.

2. Literature review and hypothesis

2.1. Innovation and firm performance

Innovation has been conceptualized as an important way to achieve superior performance of a firm. Innovation tends to be strategic activities of a firm to face the change of internal and external environment. According to some researchers, a firm cannot avoid innovation if the firm wants market develop and retains competitive advantage as well as enters new markets [16]. Innovation is often related to an organization's ability to survive and surpass the competitors; thus, innovation becomes the critical determiner of firm performance. If a firm has a capacity to innovate, then the capacity will enable firms to develop competitive advantage and achieve greater results [7, 17].

Most of the empirical studies on the relation between innovation and performance provide evidence that this relation is positive [5, 12, 18-24]. In addition, some studies arrive at conflicting conclusions [5]. Meanwhile, as Simpson et al. [25] point out, innovation is an expensive and risky activity, with positive outcomes on firm performances, and also with negative outcomes, such as increased exposure to market risk, increased costs, employee dissatisfaction or unwarranted changes. For instance, Wright et al. [26], using a sample of small businesses, find that product innovation does not affect performance in benign environments, but has a positive effect on performance in hostile environments. Although some empirical studies provide different evidence, most theories and most of the research findings suggest that there is a positive relationship between innovation and firm performance.

H1. Innovation will positively affect firm performance

2.2. Learning orientation and firm performance

Organizational learning is the process by which the firm develops new knowledge and insights from the common experiences of people in the organization, and has the potential to influence behaviors and improve the firm's capabilities [8, 27]. Organizational learning is a basis for gaining a sustainable competitive advantage and a key variable in the enhancement of organizational performance [28]. Furthermore, Wang [11] conceptualizes learning orientation as those firm values that influence a firm's approach to acquiring information. They emphasize the importance of planned processes in allowing firm learning to lead to the achievement of common organizational goals. In accordance with Calantone et al. [18], the term learning orientation is defined as a firm commitment to learning, shared vision, open-mindedness and intra-organizational knowledge sharing. A learning orientation helps a firm to acquire, disseminate and share information [11]. Some studies provide evidence of a positive relationship between organizational learning and firm performance. For instance, Nybakk [29] find that learning orientation has a direct effect on organizational performance. Other studies have found similar results [2, 5, 12, 30-33].

In sum, empirical findings are consistent with theory and provide evidence that supports the positive relationship between organizational learning and performance. In this study, a learning organization defined as an organization with a learning orientation.

H2. Learning orientation will positively affect firm performance.

2.3. Learning orientation and innovation

Learning orientation has been described as the adoption of a basic learning process. As a firm becomes larger, commitment to learning plays a crucial role in updating its assets and capabilities concerning its key activities [11]. Learning orientation is thought to be an important antecedent on firm innovation

[18, 34, 35]. Clearly, most empirical researches on the relationship between learning orientation and innovation is conducted on large firms [12], which have more of the resources needed for innovation and can take on a larger degree of risk. Nevertheless, smaller firms have other advantages, such as a less extensive bureaucracy [36], and can access resources by collaborating with other.

Some qualitative and quantitative studies show that organizational learning enhances innovation [4, 5, 7, 37-39]. Similarly, previous studies focus on one phase of the organizational learning process or on one type of innovation, mainly product or process innovation. For instance, Yli-Renko et al. [40] find a positive relationship between knowledge acquisition and product innovation.

Although the above-mentioned studies focus on different aspects of the relationship between organizational learning and innovation, most find a positive relationship between them.

H3. Learning orientation will positively affect innovation.

2.4. The mediating effect of innovation

From the earlier discussions, it can be postulated that learning orientation positively brings about a capacity to innovate. Some studies provide evidence of a positive relationship between organizational learning and firm performance. Some articles suggest that organizational learning allows the company to develop capabilities that enhance innovation and that innovation is what positively affects performance [7, 41-45].

Based on the literature examining the effect of learning orientation on innovation and the effect of innovation on financial performance, one can logically assume that learning orientation will have an indirect positive impact on financial performance via innovation. Garcia-Morales et al. [2] studied farming, manufacturing, construction and service firms in Spain and found that learning orientation both directly and indirectly influence the financial performances of large firms and SMEs through innovation. The positive effect of organizational learning on both innovation and performance is greater for smaller firm [5].

H4. Learning orientation will positively affect firm performance via innovation

3. Method

This study was based on a survey of owner SMEs apple product-based business in Batu City, Indonesia. The data were obtained using a structured questionnaire was developed and pilot tested before the formal data collection. The final data tested by Partial Least Square (PLS). The five-point Likert-type scales ranging from 1 (totally disagree) to 5 (totally agree) were used throughout the questionnaire. A total of 47 usable questionnaires was received from SMEs. Orientation learning was measured using 16-items adapted from several studies [5, 7, 12, 18] and innovation was measured using six items adapted from three studies [5, 17, 18]. The questions for measuring financial performance of the firm measured using four items used by Jimenez-Jimenez and Sanz-Valle [5] and Ar and Baki [18].

4. Results and Discussion

First, to evaluate the validity of the measurement model, convergent validity and discriminate validity were assessed. The result of measurement model is shown that indicates factor loadings in the measurement model are all greater than 0.50. The result shows that our model meets the convergent validity criteria. Furthermore, all constructs in the measurement model were judged as fulfill discriminate validity criteria (loading factor > cross loading). Composite reliability coefficients for the constructs in the measurement model are all greater than 0.06, suggesting that a high internal reliability existed in the constructs. Moreover, the measurement model shows acceptable fit values for AFVIF, GoF, SPR, RSCR, SSR and NLBCDR revealing that the model does a good job in explaining the relationships between latent variables and observed variables.

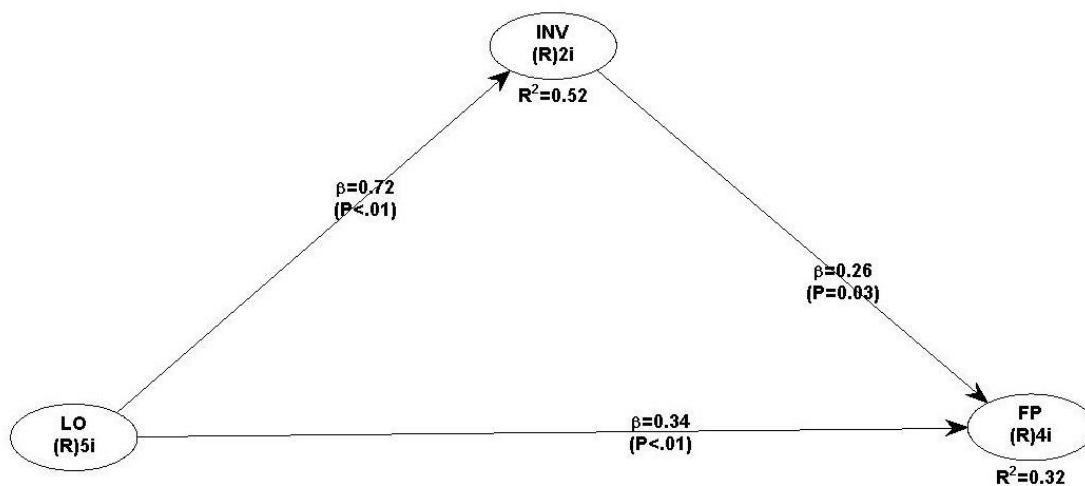


Figure 1. Research model and testing result

Table 1. Hypothesis testing.

Variable correlations	Path Coefficient	P value	Description
Learning orientation => Innovation	0.72	<0.01	Supported
Learning orientation => Firm performance	0.34	<0.01	Supported
Innovation => Firm performance	0.26	0.03	Supported
Learning orientation => Innovation => Firm performance	0.19	0.02	Supported

For H1, we examined the influence of innovation on firm performance. As shown in Table 1 and Figure 1, the effects of innovation on firm performance have a value path coefficient of 0.72 ($p < 0.01$), hypothesis 1 supported. For H2, we examined the effect of learning orientation on firm performance. The results also show that the effects of learning orientation on firm performance have a path coefficient value of 0.34 ($p < 0.01$), providing support H2. For H3, we examined the effect of learning orientation on innovation. The effects of learning orientation on firm performance, have a path coefficient value of 0.26 ($p < 0.05$), providing support H3. As to the indirect effect, the finding support for H4, showing that the learning orientation has a positive effect on both performance and innovation. These results seem to reflect that innovation partially mediates the relationship between learning orientation and firm performance.

The finding of this study provides additional evidence to the previous study that innovation has positive effects on firm performance [5, 12, 18-24]. Also, the findings show a positive relationship between learning orientation and firm performance [2, 5, 12, 30-32] and between learning orientation on innovation [4, 5, 7, 37-39]. It was found that a set of knowledge-questioning values via open-mindedness, shared vision, commitment, and knowledge sharing, facilitate firms to try out new ideas, seeks out new ways to do things, develop and launch new product/service and to be creative in its methods of operations [12].

The partial mediation of innovation was detected in the relationship between learning orientation and firm performance. The result of this study confirmed that learning orientation is important to innovation and firm performance. Implementing a learning orientation will help a company to increase its innovation and improve firm performance. This study was also in line with other studies [2, 5]. This

result may imply that learning orientation influence firm performance mainly by facilitating innovation. The findings generally suggest that when members of an organization acquire knowledge via learning process, that organization acquires the ability to be innovative. The finding is consistent with the work of [43], which indicates that the absorptive capacity of the firm is linked to the absorptive capacity of the people in the firm [4].

5. Conclusion

The study suggests that learning process in organization facilitates innovation. Therefore, an organizational hoping to enhance firm performance through innovation should improve its learning process. The study has practical implications. The relationship between learning orientation, innovation, and firm performance may provide a guide as to how companies should achieve better performance by increasing commitment to learning, promote acquisition of knowledge, then share and interpretation knowledge within the firm, and should try to keep knowledge and information in the best and most efficient way.

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