



Effect of Learning Orientation on Innovation: A Mediating Role of Knowledge Competence

Ni Made Wahyuni* and Gusti Ayu Giantari

Universitas Warmadewa, Denpasar-Bali, Indonesia

*mdwahyuni17@gmail.com

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Abstract—The purpose of this research was to investigate the effect of learning orientation on innovation, and knowledge competence as a mediator between learning orientation and innovation. The research collected data from 70 managers of manufacturing SMEs in Bali Province responded to the research questionnaires, and then the data were analyzed by using structural equation modeling with the partial least square approach. The results of this research show a significant and direct effect of learning orientation on innovation, learning orientation on knowledge competence, and knowledge competence on innovation. Furthermore, the results of the research show an indirect influence between learning orientation and innovation, which is mediated by knowledge competence. The findings of this research empirically show that learning orientation has a positive effect on knowledge competence, and knowledge competence has an important mediating effect to be managed to explain the mechanism by which learning orientation encourages innovation. Based on the research result, therefore, it can be concluded that this research offers empirical evidence about the relationship of learning orientation, knowledge competence and innovation. This research makes a theoretical contribution to the clarification that high learning orientation levels can increase innovation capacity. An important finding of this research is the role of learning orientation to increase innovation through the mediation of knowledge competence.

Keywords: Innovation; Knowledge Competence; Learning Orientation

INTRODUCTION

Every organization that seeks to achieve competitive advantage and move in a dynamic environment needs to advance its knowledge base, and therefore it requires a learning orientation (Raj & Srivastava, 2016). Learning orientation is a central concept that has been studied in the marketing literature, which reflects the basic attitude towards learning which is very important for a profit growth as a measure of performance (Morgan, Slotegraaf, & Vorhies, 2009; Sinkula, Baker, & Noordewier, 1997). The aim of learning orientation according to the RBV theory is to develop knowledge and insight through commitment to learning, sharing vision and openness that enables companies to make valuable, rare, not easily replicated products and able to exploit creative ideas faster and

effectively to produce superior performance (Lages, Silva, & Styles, 2009; Wolff, Pett, & Ring, 2015).

Studies on the learning orientation of SMEs have been carried out a lot, and those studies focus more on the individual and group level, not on the organizational learning process (Frank, Kessler, Mitterer, & Weismeier-Sammer, 2012). In Bali, market liberalization has paved the way for the economy, and competitors sought to attract the attention of customers. The increasingly harsh competition environment requires organizational learning. In general, learning orientation is a predictor of innovation not only in large companies, but also in SMEs (Keskin, 2006). Learning orientation allows SMEs to be able to respond to market developments and customer needs (Frank et al., 2012; Rhee, Park, & Lee, 2010). This

research attempts to overcome weaknesses by examining the role of learning orientation at the level of small and medium enterprises (SMEs) and their impact on innovation. The success of learning orientation is related to improving innovation strategies. Empirical evidence shows that learning orientation contributes positively to innovation (Mahmoud, Blankson, Owusu-Frimpong, Nwankwo, & Trang, 2016). Therefore, innovation was chosen as the dependent variable in this research.

Innovation reflects the organization's output that utilizes input resources in the form of information, knowledge, and ideas into processes, products, and systems for the benefit of the company (Silva, Gomes, Lages, & Pereira, 2014). Innovation is important in supporting business performance (Darroch, 2003). Innovation is so important that it is a popular topic of research.

On the other hand, the research of (Nasution, Mavondo, Matanda, & Ndubisi, 2011) found different results. Research on learning orientation results in diverse effects on the effects of innovation. Previous research were limited to the direct relationship of learning and innovation orientation. Researchers have not determined how learning orientation contributes to superior innovation performance. From a strategic point of view, learning orientation remains incomplete if practitioners do not understand the mechanism of the operating mode that gives rise to innovation. However, no research has specifically examined the effects of mediation in the relationship between learning orientation and innovation. This research offers a mediating role from the relationship of learning orientation and innovation ability that gives managers a more detailed insight into how learning orientation reacts and how it benefits the company's strategic ability to improve innovation.

In (Foong & Khoo, 2015) is able to explain the positive relationship between learning orientation and knowledge-generating competence. Furthermore, (Li & Calantone, 1998) assert that knowledge competence has a positive effect on innovation. In particular, this research proposes knowledge competence as mediator between learning orientation and innovation. The contribution of this research is to link theoretically and empirically examine the relationships between constructs, provide a theoretical and practical understanding of the role of learning orientation and competence in relation to innovation. Based on the literature

above, the following research gaps were identified: First, examine the effect of learning orientation on knowledge competence, and then add knowledge competence as mediator for the relationship between learning orientation to innovation. Second, current research is an integrative and comprehensive research of learning orientation, knowledge competence, and innovation in the context of textile SMEs in Bali.

CONCEPT AND HYPOTHESES

Innovation

Innovation is the most powerful tool used by marketing managers, that has the capacity to influence demand (Ndubisi & Iftikhar, 2012; Sandvik & Sandvik, 2003). Innovation has been defined as the ability, create ideas, products, processes that are considered new by individuals, groups of people, or companies and groups of society as a whole (Lee & Tsai, 2015), to apply the new ideas to create added value realized in the form of processes, products, administration, or management (Suliyanto & Rahab, 2012).

Knowledge competence

Knowledge competence is the ability of an organization to gain competitive advantage (Barney, 1991), to produce and use knowledge that is related to current customer needs (Ozkaya, Droge, Hult, Calantone, & Ozkaya, 2015). Competence leads to the knowledge generation process, by transforming information into knowledge. Knowledge competence is a mechanism by which transformation takes place from market information to new knowledge (Li & Calantone, 1998).

Learning orientation and innovation

When it viewed as a process or behavior, learning orientation refers to organizational activities in generation, interpretation, and utilizing and storing information and knowledge for competitive advantage (Calantone, Cavusgil, & Zhao, 2002; Mahmoud et al., 2016) describe learning orientation as an organizational ability that influences organizations to adopt new ideas, processes, products, systems, and services. This research uses resources-based view theory (RBV) as an organizational learning approach (Lages et al., 2009). With regard to the orientation of learning and innovation, (Sinkula et al., 1997) asserted commitment to learning, sharing vision and openness of mind as dimensions of learning orientation tended to

increase innovation capacity. When companies with a high level of learning orientation encourage employees to share their vision, commitment to learn and have an open mind, they influence the tendency of organizations to have broad insight into creating new products (Westerlund & Rajala, 2010). Thus, the first hypothesis is proposed:

H1: Learning orientation positively affect innovation.

Learning orientation and knowledge competence

The basic concept of learning orientation is commitment to learn, spread shared vision, and open of mind (Sinkula et al., 1997). Learning orientation as an aspect of organizational culture reflects the learning process in organizations that starts from the individual level extends to the organizational level. (Foong & Khoo, 2015) in their research in Malaysia suggested that learning, as the tendency of organizations to create, add, and utilize knowledge will increase the effectiveness of knowledge competence. Learning enables organizations to foster a strong knowledge base for enhancing knowledge competence (Griese, Pick, & Kleinaltenkamp, 2012). Based on this explanation, H2 stated:

H2: Learning orientation positively affect knowledge competence.

Knowledge competence and innovation

Knowledge competence is considered as triggers for innovation (Li & Calantone, 1998). Previous research by (Ozkaya et al., 2015) shows that strategic knowledge competence helps organizations ensure innovation be effective. Knowledge competence enables organizations to look for opportunities for innovation and reduce potential risks. In particular, knowledge competence has significant implications for the ability to adopt new ideas, modify products, and launch new products (Kandemir, 2005). Thus, the research proposes the third hypothesis:

H3: Knowledge competence positively affect innovation.

The mediating role of knowledge competence

(Frank et al., 2012) suggested that it is important for organizations to implement

organizational learning. This research proposes learning orientation as a component of organizational culture has a significant impact on competency in generating knowledge (Wu & Lin, 2013). Furthermore, knowledge competence enables organizations to have a strong knowledge base and a positive impact on innovation strategies. Thus, the fourth hypothesis is proposed as follows:

H4: Knowledge competence plays a role in mediating the effect of learning orientation on innovation.

METHOD

This research conducted on Bali Indonesia textile manufacturing SMEs. Data in this research were collected through questionnaires developed from a comprehensive literature review. The research collected data from 70 managers of manufacturing SMEs in Bali Province with high school level education (22.9%), Diploma (14.3%), and Bachelor (62.8%). Half of the SME managers surveyed were women (54.3%), classified as productive age, between 30-39 years old (44.3%), and had more than 10 years of managerial experience (51.4%). Furthermore, questionnaires were analyzed by PLS statistical tools. The measurements in the questionnaires were modified to fit the five-point Likert scale format (e.g. 1 = strongly disagree, 2 = rather disagree, 3 = disagree, 4 = agree, 5 = strongly agree). The quantitative research methods with explanatory designs and cross-sectional research designs were conducted to empirically evaluate the proposed framework. Therefore, this research examines four hypotheses.

RESULT AND DISCUSSION

Validity Test Result

The reflective construct convergent validity in this research is shown in Table 1. The instruments used in this research meet the validity criteria (convergent validity), because all construct indicators have a correlation value exceeding 0.50.

Based on Table 2, it can be seen that construct correlation with the indicator is higher than the indicator correlation with other constructs. This shows that latent constructs predict indicators on their blocks that are better than other block indicators.

Table 1
Convergent validity testing

Standardized factor loading	
Learning orientation (Cronbach's $\alpha = 0.816$)	
Open mindedness for new ideas (X1)	0.899
Commitment to learning through relationships with partners (X2)	0.752
Sharing vision with a lower level (X3)	0.901
Knowledge competence (Cronbach's $\alpha = 0.852$)	
Sharing ideas (Y1.1)	0.877
Utilization of knowledge for new product goals and solutions (Y1.2)	0.866
Trust the team (Y1.3)	0.891
Innovation (Cronbach's $\alpha = 0.906$)	
Capacity to design unique products (Y2.1)	0.894
Launch a product that is considered new by the customers (Y2.2)	0.910
Product modification (Y2.3)	0.949

Table 2
The discriminant validity test results are based on cross loadings

Item	Learning Orientation	Knowledge Competence	Innovation
X1.1	0.899	0.715	0.635
X1.2	0.752	0.528	0.350
X1.3	0.901	0.828	0.636
Y1.1	0.695	0.877	0.561
Y1.2	0.748	0.866	0.631
Y1.3	0.731	0.891	0.595
Y2.1	0.539	0.589	0.894
Y2.2	0.587	0.603	0.910
Y2.3	0.671	0.674	0.949

Reliability Test Result

The constructs are declared reliable if the composite reliability value and cronbach alpha

are above 0.70. The following Smart PLS output is shown in Table 3.

Table 3
Test results for Cronbach's alpha and composite reliability

Variables	Cronbach's Alpha	Composite reliability	Description
Learning Orientation	0.816	0.889	Reliable
Knowledge Competence	0.852	0.910	Reliable
Innovation	0.906	0.941	Reliable

The results of composite reliability output construct of learning orientation is 0.889, knowledge competence is 0.910, and innovation is 0.941. Furthermore, Cronbach's alpha learning orientation construct is 0.816, knowledge competence is 0.852 and innovation is 0.906 which means that all items can be relied upon because the value exceeds 0.70 (Latan & Ghozali, 2012). Testing of the

structural model was conducted by looking at the R-Square value, which was a goodness-fit model.

The results of statistical tests using PLS can be seen in Figure 1. Each hypothesis is supported if the p value is less than 0.05. The results show that H1, H2, H3, H4 are supported.

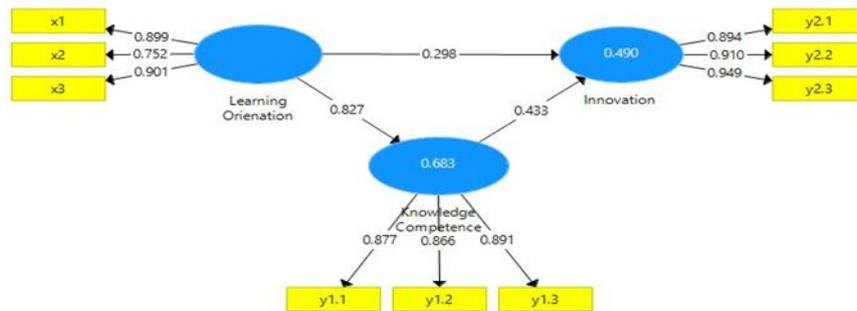


Figure 1

The complete model of the relationship between learning orientation, knowledge competence, and innovation

The effect of learning orientation on innovation

Learning orientation was found to be associated with increased innovation ($\beta = 0.298$; $p = 0.046 < 0.05$). The results of the research show that learning orientation had a direct and significant effect on innovation, where the original sample value was 0.298. The current research reveals that the more learning, the greater the ability of innovation. The results of this research support previous scientific investigations (Calantone et al., 2002; Mahmoud et al., 2016). Therefore, if the learning orientation of SME textile managers is high, which is reflected in the behavior of learning commitment, for example with behavior in establishing relationships with customers, distributors, and suppliers; share vision with subordinates; having an open mind to accept ideas, information, new knowledge, then the new insights improve innovative behavior of textile SME managers in Bali.

The effect of learning orientation on knowledge competence

It is also found a direct effect of learning orientation on knowledge competence ($\beta = 0.827$; $p = 0.000 < 0.05$). The results of this research support the research of (Foong & Khoo, 2015), that is able to provide an empirical explanation of how learning orientation mechanisms strengthen knowledge competence. If textile SMEs have a high level of learning orientation that is reflected in the behavior of commitment to learning by

establishing relationships with partners, it will improve competency in generating knowledge of SME textile managers in Bali.

The effect of Knowledge competence on innovation

Furthermore, the results show that knowledge competence has a direct and significant effect on innovation ($\beta = 0.433$; $p = 0.026 < 0.05$). These results support previous scientific investigations (Li & Calantone, 1998; Ozkaya et al., 2015). Therefore, if textile SME managers have high knowledge competence that is reflected in the behavior of trust in the ability of the work team, and this knowledge competence enhances the innovation strategy of the UKM textile manager in Bali.

The role of Knowledge competence in mediating the effect of learning orientation on innovation.

It was also found that there was an indirect effect of learning orientation on innovation through knowledge competence ($\beta = 0.358$; $p = 0.029 < 0.05$). This means that knowledge competence partially mediates the relationship between learning orientation and innovation. This finding is able to explain how learning orientation mechanisms such as behaviors share vision with a lower level to recall organizational goals, create competencies in gaining and utilizing knowledge, and then knowledge competencies have a significant effect on innovation

capabilities.

CONCLUSIONS

This research offers empirical evidence about the relationship of learning orientation, knowledge competence and innovation. This research makes a theoretical contribution to the clarification that high learning orientation levels can increase innovation capacity. An important finding of this research is the role of learning orientation to increase innovation through the mediation of knowledge competence.

REFERENCES

- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120.
- Calantone, R. J., Cavusgil, S. T., & Zhao, Y. (2002). Learning orientation, firm innovation capability, and firm performance. *Industrial Marketing Management*, 31(6), 515–524.
- Darroch, J. (2003). Developing a measure of knowledge management behaviors and practices. *Journal of Knowledge Management*, 7(5), 41–54. Retrieved from <https://doi.org/10.1108/13673270310505377>
- Foong, S.-Y., & Khoo, C.-H. (2015). Attitude, learning environment and current knowledge enhancement of accounting students in Malaysia. *Journal of Accounting in Emerging Economies*, 5(2), 202–221.
- Frank, H., Kessler, A., Mitterer, G., & Weismeier-Sammer, D. (2012). Learning Orientation of SMEs and Its Impact on Firm Performance. *Journal Of Marketing Development And Competitiveness*, 6(3), 29–41.
- Griese, I., Pick, D., & Kleinaltenkamp, M. (2012). Antecedents of knowledge generation competence and its impact on innovativeness. *Journal of Business & Industrial Marketing*, 27(6), 468–485.
- Kandemir, D. (2005). *A study of market knowledge competence as a source of SBU performance*. Michigan State University.
- Keskin, H. (2006). Market orientation, learning orientation, and innovation capabilities in SMEs. *European Journal of Innovation Management*, 9(4), 396–417.
- Lages, L. F., Silva, G., & Styles, C. (2009). Relationship Capabilities, Quality, and Innovation as Determinants of Export Performance. *Journal of International Marketing*, 17(4), 47–70. Retrieved from <https://doi.org/10.1509/jimk.17.4.47>
- Latan, H., & Ghozali, I. (2012). *Partial Least Squares. Smart PLS Concepts, Techniques and Applications 2.0M3 For Empirical Research*. Semarang: Universitas Diponegoro.
- Lee, T., & Tsai, H. (2015). The effects of business operation mode on market orientation, learning orientation and innovativeness. *Industrial Management & Data Systems*, 105(3), 325–348. Retrieved from <https://doi.org/10.1108/02635570510590147>
- Li, T., & Calantone, R. J. (1998). The Impact of Market Knowledge Competence on New Product Advantage: Conceptualization and Empirical Examination. *Journal of Marketing*, 62(4), 13–29. Retrieved from <https://www.jstor.org/stable/1252284>
- Mahmoud, M. A., Blankson, C., Owusu-Frimpong, N., Nwankwo, S., & Trang, T. P. (2016). Market orientation, learning orientation and business performance. *International Journal of Bank Marketing*, 34(5), 623–648.
- Morgan, N. A., Slotegraaf, R. J., & Vorhies, D. W. (2009). Linking marketing capabilities with profit growth. *International Journal of Research in Marketing*, 26(4), 284–293.
- Nasution, H. N., Mavondo, F. T., Matanda, M. J., & Ndubisi, N. O. (2011). Entrepreneurship: Its relationship with market orientation and learning orientation and as antecedents to innovation and customer value. *Industrial Marketing Management*, 40(3), 336–345. Retrieved from <https://doi.org/10.1016/j.indmarman.2010.08.002>
- Ndubisi, N. O., & Iftikhar, K. (2012). Relationship between entrepreneurship, innovation and performance. *Journal of Research in Marketing and Entrepreneurship*, 14(2), 214–236. Retrieved from <https://doi.org/10.1108/14715201211271429>
- Ozkaya, H. E., Droge, C., Hult, G. T. M., Calantone, R., & Ozkaya, E. (2015). Market orientation, knowledge competence, and innovation. *International Journal of Research in Marketing*, 32(3), 309–318.
- Raj, R., & Srivastava, K. B. L. (2016). Mediating role of organizational learning on the relationship between market orientation and innovativeness. *The Learning Organization*, 23(5), 370–384.
- Rhee, J., Park, T., & Lee, D. H. (2010). Drivers of innovativeness and performance for innovative SMEs in South Korea: Mediation of learning orientation. *Technovation*, 30(1), 65–75. Retrieved from <https://doi.org/10.1016/j.technovation.2009.04.008>
- Sandvik, I. L., & Sandvik, K. (2003). The impact of market orientation on product innovativeness and business performance. *International Journal of Research in Marketing*, 20(4), 355–376. Retrieved from <https://doi.org/10.1016/j.ijresmar.2003.02.002>
- Silva, G. M., Gomes, P. J., Lages, L. F., & Pereira, Z. L. (2014). The role of TQM in strategic product innovation: an empirical assessment. *International Journal of Operations & Production Management*, 34

- (10), 1307–1337. Retrieved from <https://doi.org/10.1108/IJOPM-03-2012-0098>
- Sinkula, J. M., Baker, W. E., & Noordewier, T. (1997). A framework for market-based organizational learning: Linking values, knowledge, and behavior. *Journal of the Academy of Marketing Science*, 25(4), 305–318.
- Suliyanto, & Rahab. (2012). The Role of Market Orientation and Learning Orientation in Improving Innovativeness and Performance of Small and Medium Enterprises. *Asian Social Science*, 8(1), 134–145.
- Westerlund, M., & Rajala, R. (2010). Learning and innovation in inter-organizational network collaboration. *Journal of Business & Industrial Marketing*, 25(6), 435–442. Retrieved from <https://doi.org/10.1108/08858621011066026>
- Wolff, J. A., Pett, T. L., & Ring, J. K. (2015). Small firm growth as a function of both learning orientation and entrepreneurial orientation. *International Journal of Entrepreneurial Behavior & Research*, 21(5), 709–730.
- Wu, L.-W., & Lin, J.-R. (2013). Knowledge sharing and knowledge effectiveness: learning orientation and co-production in the contingency model of tacit knowledge. *Journal of Business & Industrial Marketing*, 28(8), 672–686.