
THE ROLE OF EXPLORATIVE LEARNING IN IMPROVING BUSINESS PERFORMANCE

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Abstract

The aim of the study was to analyze and describe the effect of explorative, transformative, and exploitative learning on business performance improvement through innovation. The population in the study was the owners/ managers of batik SMEs in Pekalongan City based on batik superior industry in Central Java Province which was is in mature condition with the the samples of 80 respondents. The results of the study show that explorative, transformative, and exploitative learning have a positive significant effect on innovation. Explorative learning has the greatest effect compared to transformative and exploitative learning. Furthermore, innovation has a positive significant effect on business performance.

Keywords: Explorative, Transformative and Exploitative Learning, Innovation, and Business Performance

Introduction

In the perspective of organizational behavior, individual learning occurs when constantly assimilating new knowledge through experience and from other sources. Atuahene et al., (2007) and Lichtenthaler (2009) provide the research results that organizational learning has a positive effect on organizational performance, while Jimenez et al. (2008) suggest that organizational learning accelerates innovation but has insignificant effect on organizational performance. According to Liao et al., (2009), organizational learning has insignificant effect on financial and marketing performances.

Therefore, organizational learning is required in the form of explorative, transformative, and exploitative learnings in influencing innovation. Explorative learning is the process of organizational learning in obtaining and absorbing knowledge beyond current experience (Atuahene-Gima, Kwaku and Murray, Janet ,2007). Transformative learning is necessary because it connects exploratory and exploitative learning and also refers to maintaining knowledge over time (Lane et al., 2006). Transformative learning is an organizational learning process that emphasizes maintaining the already absorbed knowledge and reactivating knowledge (Marsh dan Stock, 2006). Exploitative learning is an organizational learning process that emphasizes the process of altering the absorbed knowledge associated with previous experiences (Atuahene-Gima, Kwaku dan Murray, 2007).

Explorative, transformative, and exploitative learning processes vary, but they are dependent and supportive. Based on the problems sourced from the differences of the research results on the effect of organizational learning on innovation in achieving business performance, the research on Batik SMEs in Pekalongan city was conducted based on batik superior industries in Central Java Province which were is in mature condition (BappedaCentral Java Province, 2009). The aim of the study was to analyze and describe the effect of explorative, transformative, and exploitative learning on business performance improvement through innovation.

Development of Hypotheses and Empirical Research Models

1. The Effect of Explorative Learning on Innovation Diversit

Explorative learning can help improve changes in environmental conditions by creating new products and meeting the needs of emerging markets (Jensen et al., 2005). Slater and Narver (1995) gave the results that explorative learning is a necessary factor in making breakthroughs in innovation. The results of Atuahene et al., (2007) and Lichtenthaler (2009) show the finding that explorative learning has a positive significant effect on innovation.

H1: The higher the explorative learning, the higher the innovation

2. The Effect of Transformative Learning on Innovation

Market knowledge is important to decide to retain knowledge, to combine it with other knowledge, and to reactivate it (Marsh and Stock, 2006). The results of Lane et al (2006) and Lichtenthaler (2009) show the finding that transformative learning has a positive significant effect on the diversity of innovations.

H2: The higher the transformative learning, the higher the innovation

3. The Effect of Exploitative Learning on Innovation Diversity

Exploitative learning focuses on knowledge in the context of product or service, and the learning reaches the absorption of external knowledge (Lane et al. 2006). To successfully exploit knowledge, a company needs prior market knowledge. After assimilating external knowledge, a company usually has a deep understanding of technological knowledge. The results of Lane et al (2006) and Lichtenthaler (2009) show the finding that exploitative learning has a positive significant effect on innovation.

H3: The higher the exploitative learning, the higher the innovation

4. The Influence of Innovation on Business Performance

Kropp, Lindsay and Shoham (2005) suggest that innovation supported by creativity influences performance. Dibrell et al., (2008) state that the level of product and process innovations influences company performance. Paladino (2007) explains that there is a relationship between innovation and overall performance. Pinho (2007) states that organizational innovation, administrative processes, and technological innovation have the positive effects on performance.

H4: The higher the innovation, the higher the business performance

Furthermore, based on the study and development of the hypothesis, an empirical research model can be built as follows:

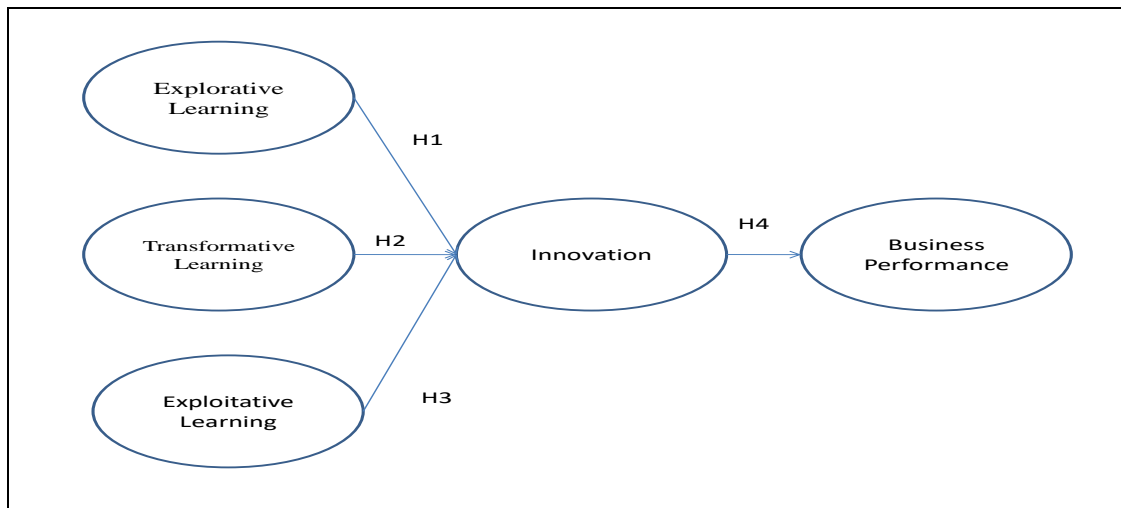


Figure 1: Empirical Research Model

Research Method

Types and Sources of Data

The study used the primary data obtained directly from the respondents through questionnaires.

Population, Sample and Sample Size Determination

The population in the study was the batik SMEs in Pekalongan City with the characteristics of: 1) Having at least 10 employees and the maximum of 100 employees, 2) Having a batik business license from the local government and owned by the citizen of Indonesian, 3) independent batik business and not a subsidiary or branch of a company. The determination of the number of samples ranged from 30 and smaller than 500, and it is in line with the opinion of Sekaran (2006) which states that it has been considered to represent.

The purposive sampling method was with the criterion 1) having workers at least 10 people and the maximum of 100 people (both permanent and non permanent employees, 2) having a batik business license from the local government and owned by the citizen of Indonesia, 3) independent batik businesses and not a subsidiary or branch of a company, and 4) willing to provide the required information. The number of

samples that could be obtained was 80 respondents. The data collection method used in this study was a questionnaire method using Likert scale 1-5.

Sampling technique

The sampling method in this research used purposive sampling method. The subjects in this study were the owners/ managers of Pekalongan batik

Data Processing Techniques and Data Analysis

Data processing technique was conducted using descriptive and statistical analysis.

Results And Discussion

Identification of Respondents

The samples in this research were batik craftsmen in Pekalongan City, who were classified in adult stage of 80 respondents. The number of questionnaires distributed to the crafters of Pekalongan batik was 120 questionnaires. The number of questionnaires returned and completely filled out was 80 sheets. Most of the respondents in this study was 60 women (75%), which means that the business is much in demand by women. The age of the respondents mostly ranged 41-50 years old of 43 respondents (53.75%), which means that they were in productive age. The last education of most respondents was high school by 55 people (68.75%), the high percentage of the respondents having high school education due to the view that a high school graduate is considered sufficient to have the ability to continue family business or to start a new business.

Validity and Reliability Tests

Based on the calculation, there is no loading factor value smaller than 0.50, and there is no reliability smaller than 0.70.

Data analysis

Multiple Regression Analysis, the Effects of Explorative, Transformative, and Exploitative Learning on Innovation

The significance of the effect of the independent variables on the dependent variables can be seen from the values of coefficient beta (standardized coefficients) as follows:

$$Y_1 = 0.353 X_1 + 0.201 X_2 + 0.287 X_3$$

The results can be interpreted that the regression coefficients of explorative, transformative, and exploitative learning variables are positive. It can be interpreted that an increase in explorative, transformative, and exploitative learning will increase innovation.

Multiple Regression Analysis Influence of Innovation on Business Performance

The regression calculation of the effect of innovation on business performance was obtained by the result of regression equation as follows:

$$Y_2 = 0.602 Y_1$$

The results can be interpreted that the regression coefficient of the innovation variable is positive. It can be interpreted that an increase in innovation will improve business performance.

Model Testing (Goodness of Fit)

a. Determination Coefficient

Based on the results of the regression analysis, the determination coefficient in model 1 of Adjusted R Square value is 0.387. It means that 38.7% of the change of innovation variable can be explained by explorative, transformative, and exploitative learning variables in the model, while the remaining 62.3% is described out of the model above. The Model 2 of Adjusted R Square value is 0.354 meaning that 35.4% of the change of business performance variable can be explained by innovation variable in the model, while the rest of 64,5% is explained out of the model above.

b. F-Test

In model 1, the value of F equal to the significance level of 0.00 which is much smaller than 0.05, so the model meets the Goodness of Fit requirement and it can be used to explain the effect of explorative, transformative, and exploitative learning on innovation. Model 2 obtained the value of F equal to the level of significance of 0.00 which is much smaller than 0.05, so the model meets the requirements of Goodness of Fit and it can be used to explain the effect of innovation on business performance.

Hypothesis testing

The research results show that, in hypothesis 1, the beta standardized coefficient shows that the effect of explorative learning on innovation is 0.353 with positive sign and the significance level of 0.001. Hypothesis 2 shows that the beta standardized coefficient of the effect of transformative learning on innovation is 0.205 with positive sign and the level of significance of 0.037. In hypothesis 3, the beta standardized coefficient of the effect of exploitative learning on innovation is 0.2872 with positive sign and the significance level of 0.005 which is still far below 0.05. Thus, it is proved that hypothesis 1, hypothesis 2, and hypothesis 3 are accepted. In hypothesis 4, the beta standardized coefficient is 0.602 which is positive with the significance level of 0.000 and still far below 0.05. Thus, it is proved that hypothesis 4 is accepted. The SMEs can enhance explorative learning by comparative studies, training, trade shows, sharing, improving experiments to test and develop new products, and following the development to acquire knowledge and to develop their products.

Conclusions And Recommendations

Conclusion

Based on the results obtained, it can be concluded that explorative, transformative, and exploitative learning has a positive significant effect on innovation. The higher the explorative, transformative, and exploitative learning, the higher the innovation. Innovation has a positive significant effect on business performance. The higher the innovation, the higher the business performance.

Recommendation

Based on the results, it is recommended that batik artisans need to improve their creative techniques skills to develop their creativity in innovation and to improve their business performance. In addition, they need facilitation, mentoring and coaching from the government of Pekalongan city/ regency and the relevant parties.

REFERENCES

- Atuahene-Gima, Kwaku and Murray, Janet Y (2007). Exploratory And Exploitative Learning In New Product Development: A Social Capital Perspective On New Technology Ventures In China, *Journal of International Marketing*, Vol 15, 2
- BappedaProvinsiJawaTengah, 2009
- Dibrell, Clay; Davis, Peter S dan Craig, Justin, (2008), Fueling Innovation through Information Technology in SMEs, *Journal of Small Business Management*, 46,2, ABI/INFORM Global
- Jansen, J. J. P., Van den Bosch, F. A. J., and Volberda, H. W.; (2005), Managing Potential and Realized Absorptive Capacity: How Do Organizational Antecedents Matter?; *Academy of Management Journal*, 48: 999–1015.
- Jimenez-Jimene, D., R.S. Valle, Adn M.H. Espallardo. (2008), Fostering Innovation, *European Journal Of Innovation Management*, Vol.44 No.3,Pp.389-412.
- Kropp, Fredric; Lindsay Noel J; Shoham Aviv; (2006), Entrpreneurial, Market And Learning Orientation And International Entrepreneurial Business Ventures Performance In South African Firms; *International Marketing Review*; Vol. 23 No.5 pp. 504-523.
- Lane, P. J., Koka, B., and Pathak, S, (2006), The Reification Of Absorptive Capacity: A Critical Review And Rejuvenation Of The Construct, *Academy of Management Review*, 31: 833–863.
- Liao, S And Chi-Chuan Wu. (2009), The Relationship Among Knowledge Management Organizational Learning, And Organizational Performance, *International Journal Of Business And Management*, Vol.4 No.4.
- Lichtenthaler, Ulrich; (2009), Absortive Capacity, Environmental Turbulance, And The Complementary of Organizational Learning Processes, *Academy of management Journal*, vol 52 No 4.822-946
- Paladino, Angela (2007), Investigating The Drivers of Innovation and New product Success: A Comparison of Strategic Orientations, *Product Innovation Management*, 24
- Pinho, Jose, Carlos (2007), TQM and Performance In Small Medium Entreprises: The Mediating Effect of Customer Orientataion And Innovation, *International Journal of Quality and reliability Management*, Vol 25, No 3
- Sekaran, Uma. (2006), *Research Methods For Business: A Skill Building Approach*, Second Edition, New York, ChichesterBrisbane Toronto, Singapore, Jhon Willey & Sons, Inc.
- Slater SF and Narver, JC, (1995), Market Orientation And The Learning Organisation, *Journal of Marketing*, Vol 59

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