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RESEARCH ARTICLE

THE IMPLEMENTATION OF STRATEGIC INNOVATION MANAGEMENT AND ITS EFFECT ON FIRM INNOVATION PERFORMANCE IN INDONESIAN WOMEN ENTREPRENEUR ASSOCIATION

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ABSTRACT

Entrepreneurship provides opportunity for women, due to its flexible participation characteristic. Entrepreneurial activities for women would not only provide economic benefit, but also positive social impact for them and their families. However, entrepreneurial business performance requires great management effort over various aspects. One key aspect that would be focused in this research is the management of innovation. This study aimed to investigate Firm Innovation Performance based on the effect of factors such as Product Innovation, Process Innovation, and Market Innovation. The object of the research was the West Java Chapter of Indonesian Women Entrepreneur Association.

KEYWORDS

Firm Innovation Performance; Strategic Innovation Management; Women Entrepreneur; Small Medium Size Enterprise.

1. INTRODUCTION

Entrepreneurship was a prominent factor in economic growth and development that helps creating employment opportunity and country's competitiveness (Aimasari and Ghina, 2015). Various researches showed that entrepreneur contribution towards economic development was significant. In the United Kingdom, 99% of the business was small-medium size enterprises (SMEs) that contribute to 59% of national employment (Benzing and Chu, 2009). Furthermore, in Europe, 99,8% of the business were SMEs that employed two-third of total workforce.

In Indonesia, SMEs contribute to 60, 34% of GDP. With such major contribution, the President of The Republic of Indonesia, Joko Widodo, stated that developing SMEs should be prioritized for national economy. The Deputy of Macro Economy and Finance from The Coordinating Ministry of Economy, Iskandar Simongkir, stated that 93,4% of Indonesian businesses were small-size, 5,1% were medium-sized, and only 1% of the businesses were large enterprise entities. He further stated that to maintain strong pillar of Indonesian economy, the government need to grow the number.

However, in the West Java region, there were major gap in the workforce participation between men and women. Women were a major part of the population experiencing unemployment and low professional education. Therefore, entrepreneurship provides proper opportunity for women. Because it responds to flexibility in participation, change, and innovation (Sandybayev, 2013). The opportunity from entrepreneurship was responded positively by Indonesian Women. The Minister of Labor, Muhammad Hanif, stated that the number of women entrepreneurs in Indonesia was significantly increasing in recent years. Many of them were gathered in The Association of Indonesian Women Entrepreneur (IWAPI), as an organization that supports the development of women entrepreneurs in Indonesia.

Entrepreneurship was heavily related to innovation. The performance of SMEs is studied based on management of strategic innovation and how impact of strategic innovation affects the performance in this prior empirical research (Kalay, 2016; Wahyuningtyas et al., 2015; Rismayani et al., 2022). Two researches study the same indicators for strategic innovation management in different geographic context. They found that the SMEs performances were influenced by their innovation strategy, innovation culture, and organizational structure. However, in the context of Indonesian SMEs, the research concerning innovation management in SMEs was still scarce. Therefore, this study aims to fill the knowledge gap by studying how the practice of strategic innovation management could impact the SMEs performance, specifically in West Java, Indonesia.

2. RESEARCH FRAMEWORK

To investigate the product innovation, process innovation and market innovation influence firms' performance and influence on strategic innovation management practice in common as shown in literature (Osuga, 2016). On the basis of research interaction of variables leads to hypotheses development as illustrated in Figure 1.

H1: *Product Innovation positively influences Firm Innovation Performance.*

In the process of production, new and better materials used or new product introduced in the market with the changes in production line of an organization are termed as product innovation (Wong, 2014). Firm Innovation Performance is positively influenced by product innovation found in several prior studies (Camisón and Villar, 2010; Varis and Littunen, 2010). Product innovation strategy implemented by firms indicates firms' innovation performance is increased in a better manner as compared to those firms does not implement product innovation strategy.

H2: *Process Innovation positively influence Firm Innovation Performance*

Introducing new products and services in the market which ultimately led

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to creation of ideas is termed as process innovation (Morris et al., 2011). The organization performance which is positively correlated to a firm's performance according to study of Varis and Littunen Technological innovation included in process innovation as improved in outperform of the organization in agreement to this also established in empirical study (Varis and Littunen, 2010; Murat and Baki, 2011).

H3: *Market Innovation positively influence Firm Innovation Performance*

Next, how market innovation relates to innovation performance of firms is examined through this study. The organization aims to enable faster and efficient ways to reach out customers with satisfying preferences as using marketing mix and selection is termed as market innovation (Rosli and Sidek). Internal R&D is rarely undertaken by SMEs through marketing innovation therefore it can be noted as large firms with internal R&D successful results that can be attained by SMEs (Rammer et al., 2013). To achieve a sustainable competitive advantage by organizations considering marketing innovation as a necessary tool. The current activities for continuous and additional adjustments in marketing innovation that enable differentiation in offerings of SMEs with large firms (Epetimehin, 2011). As firms engage in marketing innovation will be more innovative ultimately when considered as part of overall innovation strategy.

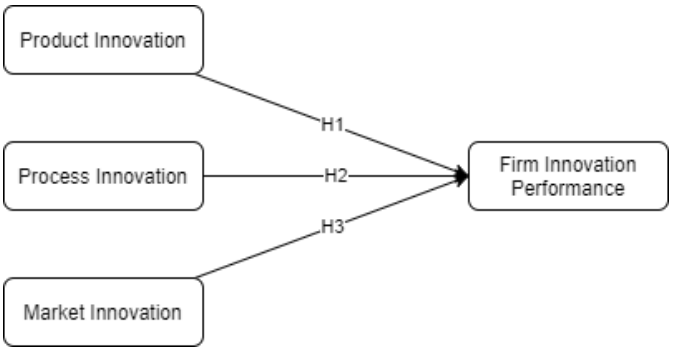

Figure 1: Research Framework

3. METHODS

In this study, the research objective population which is members of Indonesian Women Entrepreneurs Association (IWAPI) Chapter West Java is 459 small-medium size enterprises (SMEs). To obtain required research samples proportional stratified random sampling technique is applied which results in 82 SME entities that are represented as population samples. Data gathered with questionnaire, containing 32 questions. Likert scale was employed as the method of measurement. Cronch's alpha, average variance extracted, and Fonell-Lacker analysis were used to ensure the reliability and validity of research instruments (San et al. 2020). Afterwards, data were analyzed using SEM-PLS technique with the help of SMARTPLS 3.0 software.

4. RESULTS

4.1 Outer Model Test

To analyze the outer SEM-PLS model deploy techniques such as Cronbach's alpha and composite reliability (CR). It is the common indicator to determine the internal consistency of research instruments (San et al., 2020). If the research indicator for values of Cronbach's alpha and CR value is higher than 0.7, then it could be accepted as a reliable research instrument. Table 1 described the result of indicators used in the questionnaire. Overall, the two indicators found to be indicating that the research instruments are highly consistent.

Table 1: Research Instruments' Internal Consistency Result

Variables	*Cronch's Alpha*	*Composite Reliability*
Product Innovation	1.000	1.000
Process Innovation	0.807	0.912
Market Innovation	0.771	0.852
Firm Innovation Performance	0.785	0.861

The next step is the research instruments validity test which determines their convergent validity by using average variance extracted (AVE). Variables used in this research were determined valid to fulfill the convergent validity criteria as the value of the AVE was higher than 0.5 (Table 2).

Table 2: Research Instruments' AVE Results

Variables	*AVE*	Keterangan
Product Innovation	1.000	Valid
Process Innovation	0.838	Valid
Market Innovation	0.541	Valid
Firm Innovation Performance	0.608	Valid

The last step is to determine the discriminant validity implementing the Fornell-Lacker test that considers validity and reliability test. The result of analysis for the Fornell-Lacker test is described in table 3. The highlighted diagonal value is AVE square value within the table. Meanwhile, the values below AVE square value are correlated to the other constructs values. The test results suggest that the research model succeeds in fulfilling criteria of being discriminately valid research instruments.

Table 3: Fornell-Lacker Results

	IS	OS	IC	FIP
PrI	***1.000***			
PsI	0.099	***0.915***		
MI	0.398	0.354	***0.773***	
FIP	0.315	0.4	0.578	***0.774***

4.2 Inner Model Test

Following to comply the outer model test result, the inner model or structural model test could be conducted. Observing R^2 value of dependent construct that evaluated by inner model and the path coefficient test for obtaining T-statistics value. The prediction capability of the proposed model is better determined by higher R-square value. The Firm Innovation Performance R^2 value that is equal to **0.540**. It was categorized as having substantial predictive capability since the value was higher than 0.26. Thus, 54% changes in Firm Innovation Performance is confirmed as caused due to the change in Management of Strategic Innovation.

In this research, the proposed model evaluates the observation of f^2 value which describes the measurement of the effect. f^2 value measured through the increasing value of R^2 relative to the variance proportion of the endogen variable yet to be clarified. The f^2 value is categorized as between 0.02-0.14 is considered to be weak effect, 0.15-0.34 considered moderate effect otherwise value more than 0.35 considered strong effect. Each independent variable effects on the dependent variable which is described in table 4. Both product and process innovation were found to have weak effects on firm innovation performance. Meanwhile, market innovation as a variable was found with moderate effect on firm innovation performance.

Table 4: *F-Square* Results

	Firm Innovation Performance	Effect
Product Innovation	0.023	Weak
Process Innovation	0.003	Weak
Market Innovation	0.032	Moderate

Hypotheses testing conducted through bootstrapping techniques that evaluate values which are related to both independent and dependent variables obtained by implementing Smart PLS(Partial Least Square) 3.0 software. Rule-of-thumb used in this research was t-statistic value > 1.96 with sig. p-value 0.05 (5%). Table 5 represents values based on the test result, as indicating H3 was accepted and H1-H2 was rejected.

5. DISCUSSION

Table 5 represents test results, product innovation with no positive significant influence on innovation performance of firms is considered as a research variable. The test result's probable cause can be evaluated as diving more into respondent characteristics. Developing new products affected by factors of lack of fund capability such as incompetence and capital that becomes the source for finding related to both product innovation and firm innovation performance. Because SMEs were arguably more inclined to undertake the process of new product development, compared to large organizations.

Table 5: *Path Coefficients* Results					
Hypotheses	***Original Sample (O)***	***Standard Deviation (STDEV)***	***T Statistic (IO/STDEV)***	***P Values***	**Keterangan**
H1: *Product Innovation →FIP*	0.112	0.088	1.276	0.203	Reject
H2: *Process Innovation → FIP*	-0.047	0.074	0.634	0.526	Reject
H3: *Market Innovation →FIP*	0.219	0.094	2.332	0.020	Supported

Next, the test result also implies that process innovation was found to be in absence of positive influence towards firm innovation performance. The probable cause of this finding was again related to the capability of SMEs, whether in manpower, funding, and other forms of capital. SMEs studied in this research were more focused in pursuing financial performance with lack of comprehensive understanding of their business process. Thus, they presumably preferred to adhere to the traditional way that proved to bring benefit, instead of experimenting with their business process to develop competitive edges.

On the other hand, the results of test that relates to market innovations and firm innovation which are considered research variables implied by positive influence. Market innovation involves developing a marketing mix that brings the best performance for the business. In the success of SMEs, customer is an important element so that customer centered and market-oriented activities are needed. SMEs were presumably focusing their capital in reaching and fulfilling the needs of their customers. Thus, the innovation that they pursued was more from the marketing perspective. Since the fulfillment of customer needs would bring forth economic value for the SMEs.

6. Conclusions

The study examined the strategic innovation implementation and its' relationship to SMEs' innovation performance. SMEs that were examined were members of Indonesian Association of Woman Entrepreneur (IWAPI) chapter West Java. By investigating capabilities of Indonesian SMEs competing strategies based on product innovation, process innovation, and market innovation of organizations as result of this research. Market innovation was found to be the variable that brought positive influence towards firm innovation performance. Thus, SMEs should enhance their capability in using marketing mix that fit their customer needs in order to develop better business performance.

References

Aimasari, N., and Ghina, A., 2015. Analisis faktor-faktor yang memotivasi Wanita untuk menjadi wira usaha (studi pengusaha Wanita umkm di kota bandung tahun 2015, eProceedings of Management, 2 (3).

Benzing, C., and Chu, H.M., 2009. A comparison of the motivations of small business owners in Africa. Journal of Small Business and Enterprise Development, 16 (1), Pp. 60–77. doi: 10.1108/14626000910932881.

Camisón, C., and Villar López, A., 2010. An examination of the relationship between manufacturing flexibility and firm performance: The mediating role of innovation. International Journal of Operations & Production Management, 30 (8), Pp. 853–878. doi: 10.1108/01443571011068199.

Epetimehin, F.M., 2011. Achieving competitive advantage in insurance industry: the impact of marketing innovation and creativity, Journal of emerging trends in economics and management sciences, 2 (1), Pp. 18–21.

Kalay, F., 2015. The impact of strategic innovation management practices on firm innovation performance, Pressacademia, 2 (3), Pp. 412–412, doi: 10.17261/Pressacademia.2015312989.

Morris, D.F., Kuratko, and Schindehutte, M., 2001. Towards Integration: Understanding Entrepreneurship through Frameworks, The International Journal of Entrepreneurship and Innovation, 2 (1), Pp. 35–49, doi: 10.5367/000000001101298765.

Murat, Ar., and Baki, B., 2011. Antecedents and performance impacts of product versus process innovation: Empirical evidence from SMEs located in Turkish science and technology parks, European Journal of Innovation Management, 14 (2), Pp. 172–206. doi: 10.1108/14601061111124885.

Osuga, P.O., 2016. The effects of strategic innovation on the performance of SMES in Nairobi County, PhD Thesis, United States International University-Africa,

Rammer, C., Czarnitzki, D., and Spielkamp, A., 2009. Innovation success of non-R&D-performers: substituting technology by management in SMEs, Small Bus Econ, 33 (1), Pp. 35–58. Jun., doi: 10.1007/s11187-009-9185-7.

Rismayani, R., Manuel, B., and Latifah, U., 2022. The influence of strategic innovation management on firm innovation performance in the Indonesian mid-size telecommunication industry, F1000Res, 11, Pp. 956. doi: 10.12688/f1000research.121673.1.

Rosli, M.M., and Sidek, S., 2013. The Impact of innovation on the performance of small and medium manufacturing enterprises: Evidence from Malaysia. Journal of Innovation Management in Small & Medium Enterprises, 1,

San, W.H., Von, W.Y., and Qureshi, M.I., 2020. The Impact of E-Service Quality on Customer Satisfaction in Malaysia, Journal of Marketing and Information Systems, 3 (1), Pp. 46–62.

Sandybayev, 2018. Women Entrepreneurship in the UAE: Factors of Motivation and Drive. International Journal of Pure and Applied Mathematics, 119 (15), Pp. 2061–2069,

Varis, M., and Littunen, H., 2010. Types of innovation, sources of information and performance in entrepreneurial SMEs, European Journal of Innovation Management, 13 (2), Pp. 128–154, , doi: 10.1108/14601061011040221.

Wahyuningtyas, R., Disastra, G., and Rismayani, R., 2022. Toward cooperative competitiveness for community development in Economic Society 5.0, Journal of Enterprising Communities: People and Places in the Global Economy,

Wong, S.K.S., 2014. Impacts of environmental turbulence on entrepreneurial orientation and new product success. European Journal of Innovation Management, 17 (2), Pp. 229–249. doi: https://doi.org/10.1108/EJIM-04-2013-0032.