**Analysis of Intervening Variables of New Product Performance affected Tacit Knowledge and Strategic Flexibility**

**Nizar Alam Hamdani 1)** \*)**; Muhammad Ridwan 2); Galih Abdul Fatah Maulani 3); Intan Permana 4)**

**1)** \*)[**nizar\_hamdani@uniga.ac.id**](mailto:nizar_hamdani@uniga.ac.id)**, Fakultas Ekonomi, Universitas Garut, Indonesia**

**2) 24081119054@fkwu.uniga.ac.id, Fakultas Kewirausahaan, Universitas Garut, Indonesia**

**3) galihafm@uniga.ac.id, Fakultas Kewirausahaan, Universitas Garut, Indonesia**

**4) intan@uniga.ac.id, Fakultas Kewirausahaan, Universitas Garut, Indonesia**

\*) Corresponding Author

**ABSTRACT**

**Objectives**: Global Innovation Index revealed that the innovation performance in Indonesia demonstrated a relatively poor contribution value compared to several ASEAN countries. The lowest indicator of the innovation performance is related to the business sophistication. In business activities, some experts identify innovation as the key factor in the company competitiveness.

**Methodology**: This study is causal research at 95% of confidence interval in collecting and constructing the data structure to evaluate the cause-and-effect relationship of the variables. The primary data was obtained through survey from 90 small scale leather apparel companies in Indonesia. Subsequently, the data was analysed using structural equation model and multiple.

**Finding**: Compared to the previous studies, the results of this study indicated a novelty, product innovation and process innovation can be intervening variables if strategic flexibility as exogenous variables and new product performance. To improve new product performance, every leather apparel industry in Indonesia must first increase tacit knowledge, strategic flexibility, product innovation and process innovation.

**Conclusion**: Based on the findings, the researcher suggested further research to examine to examine path analyze research framework are exogenous variables (strategic flexibility and tacit knowledge), endogenous variables (organizational innovation and new product performance) and intervening variables (product innovation and process innovation).

**Keywords**: new product performance; organizational innovation; process innovation; product innovation; strategic flexibility; tacit knowledge.

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**INTRODUCTION**

Evaluating the performance of a company is conducted through two aspects, namely profitability and operational aspects. Every company aims to maximize the shareholders’ profits to increase their wealth and prosperity (Goh et al., 2022). However, 57,23% of companies prefer to evaluate the performance through the operational aspect (Exposito & Sanchis-Llopis, 2018). In the evaluation process, the operational aspect consists of product innovation, process innovation and organizational innovation (Autio et al., 2014).

Product innovation as the key factor of the capitalistic success is an endeavour that has been proposed in the literature for more than half a century. Controlling the product innovation needs to be conducted continuously as market interests and trends change all the time. Providing the authenticity of product features, attributes and specifications that are more stringent, durable, reliable and stronger is an effort to attain market needs that are not met by other products. Current product innovation analyses are only conducted based on the level of the industry, but it is possible to conduct the analysis based on the business sizes, the nation characteristics, the company strategies and the type of the services provided (Bustinza et al., 2018). According to the company size, the percentage of the product innovation frequency is the least among small companies compared to medium and large companies.

Table 1. **The percentage of the Product Innovation based on the Company Size**

|  |  |  |  |
| --- | --- | --- | --- |
| No | Number of employees | Company size | % |
| 1 | > 1000 | Large | 55,22 |
| 2 | 300 – 999 | Mid | 24,39 |
| 3 | < 299 | Small | 20,39 |

Source: (Shi et al., 2016)

58% of small companies believe that the process innovation is essential and dependent on the science advances in term of tools and methods innovation to lessen the meeting time spent by the customers and suppliers (Maier et al., 2015). As a starting point in the process innovation, small companies may ask some important questions regarding the innovation such as “why”, “what”, “how”, “who” and “where” (Dieter & Schmitt, 2018). Consequently, the mechanism becomes the key of the process innovation (Jokubauskienė & Vaitkienė, 2019). Innovation is widely recognized as the key factor in the company competitiveness. Small companies need to be creative and innovative in addressing the crises encountered during the growth phase. In other words, innovation is expected to be essential to the survival of small companies. Despite large number of studies on innovation among small companies, few studies addressed the factors that drive innovative performance (Abdul-Halim et al., 2018).

The innovation performance in Indonesia shows relatively poor contribution values. Global Innovation Index stated that Indonesia is ranked 87th in 2021 compared to Brunei Darussalam ranked 82nd, Philippines 51st, Vietnam 44th, Thailand 43rd, Malaysia 36th and Singapore 8th. The lowest indicator of the innovation performance in Indonesia is the business sophistication with the total value of 17.5 points, which is in the lowest rank at 110th. Business sophistication is assessed based on the knowledge absorption at 23.4, the relevance of the innovation at 20.7 and worker knowledge at 8.0 (Global Innovation Index, 2021). The step in this study is necessary, considering that innovation deals with something new, something that is not known how to get or manage it, thereby there is a gap between what is now known and what needs to be known to innovate. Companies need such prolific and creative individuals that are able to work in teams.

Table 2. **The Innovation Performance in Indonesia**

|  |  |  |  |
| --- | --- | --- | --- |
| No | Indicators | Rank | Score |
| 1 | Institutions | 107 | 51.2 |
| 2 | Market sophistication | 57 | 48.5 |
| 3 | Infrastucture | 68 | 41.4 |
| 4 | Human Capital and research | 91 | 22.4 |
| 5 | Knowledge and technology outputs | 74 | 18.3 |
| 6 | Creative outputs | 91 | 17.5 |
| 7 | Business sophistication | 110 | 17.5 |

Source: (Global Innovation Index, 2021)

The innovation in organizational contexts exhibit the combination of several new forms of activities that enable an organization to gain and maintain the competitive advantage. It may be created in a form of new products, product quality, production method, market and source of supply and new strategies of the company. To develop high-quality products, workers are required to have relevant knowledge and a willingness to learn. Based on the perspective of individual behavioural characteristics, the desire to continue learning is one of the characteristics, namely culture (Song et al., 2019). Culture in this context is a trait that affects the curiosity of workers. Workers who are open to new experiences have a higher appreciation of art and are more likely to accept unconventional ideas to achieve certain qualities. Thus, the culture innovation is considered to accommodate unusual ideas by the organization in the form of continuously improving the product quality (Abdul-Halim et al., 2018). The implementation of new methods carried out by all levels of the company's organization to improve product quality is called organizational innovation (Paudel, 2019). In line with resource-based theory, new methods of high-quality products are considered a valuable and rare resource to build a company's competitive advantage. Quality products may provide 30% to 60% of the profit to the company (Heizer et al., 2020). Therefore, the product quality is a critical prerequisite of the company performance in term of new product development (Yang & Ju, 2017).

Small businesses generally process scarce resources that prevent the product innovation of the company (Löfqvist, 2017). In small businesses, the analysis of the relationship between product innovation, process innovation and organizational innovation and the company performance is solely carried out partially with significant results respectively (Exposito & Sanchis-Llopis, 2018). Accordingly, the researcher is conducting the analysis of the simultaneous relationship between product innovation, process innovation and organizational innovation with new product performance. New product performance results should be observed competitively from the manager's perspective since it is an organizational capability and the source of the competitive advantage.

The author plans to conduct an analysis of product innovation, innovation processes and organizational innovations as intervening variable. The performance results of new products should be viewed competitively from the perspective of managers because they are organizational capabilities and a source of profit in the competition (Guo et al., 2018).

**LITERATURE REVIEW**

1. **New Product Performance**

As previous research on new product development stated, new product performance is the extent to which a new product offers unique and eminent benefits over competitors' products (Heimonen & Kohtamäki, 2019). The three natures of new product performance used in the apparel industry are novelty (unique), meaningfulness (useful) and superiority (superior) (Heimonen & Kohtamäki, 2019). Novelty is a cognition based on an overall analysis of the similarity of a product with other products to distinguish the product from the competitors and discover more values in the new product. Meaningful is the result of consumer evaluation of unknown and similar products through key cues in product perception that are highly relevant to their quality. Superiority is the identification of two main reasons for the failure of new products introduced to the market, namely: 1) knowledge gaps between actual customer needs and company offerings, and 2) new products that are not superior to competitors.

Companies are demanded to always comprehend and realize what is happening in the market what is desired by the consumers. In other words, companies are expected to be able to choose and decide appropriate strategies to encounter the business competitions (Dewi, 2016; Hamdani & Maulani, 2018). Various changes in the business environment determine the ability to compete with other companies. Companies should strive to minimize weaknesses and maximize strengths.

The process of maximizing the company's strengths may be performed by managing the resources adequately. It encourages the company to create the competitive advantage with the ability to provide more value to customers than what is provided by its competitors (Dewi, 2016; Zulkarnain, 2021). New product performance might be generated from various activities such as designing, producing, marketing, delivering and supporting the product. Each activity is necessarily directed to promote the company’s relative cost position and create the basis of creating differentiation (Dewi, 2016; Nizar Alam Hamdani, 2018).

The consumer's perception of the new product performance will be the total assessment. The new product performance is a vital instrument to achieve the success and prosperity in small companies. The technological developments, the increase of global market competition and the market growth and needs require companies to develop new products continuously (Gofur, 2019; Handaruwati, 2020; Maulani & Hamdani, 2019). Customers are always demanding innovative products according to their preferences.

1. **Product Innovation**

Product innovation is possibly observed from the functional progress of a product that allows the product to be one step ahead from the competitors’ products (Permana, 2020). The level of product innovation (base, improvement and adaptation) is determined by indicators of productivity, efficiency and mass (Damianov, 2019). Productivity refers to achieving a world-class product. Efficiency refers to the reliability of the resources used. Mass refers to the time, fuel savings, materials, working comfort and repairability. It is crucial to plan and implement the product innovation carefully (Dewi, 2016; Nasir, 2017; Zulkarnain, 2021). Product innovation positively and significantly affected new product performance by 36.7% at a 99% confidence level (Dogbe et al., 2019). For this reason, as the researcher proposed the alternative hypothesis as follows:

H1: Product innovation influences new product performance.

Previous research describe that tacit knowledge have an important role to produce innovative products (Rengkung et al., 2019). Tacit knowledge is knowledge of techniques, methods and designs that work in a certain way and are personal, difficult to formulate and difficult to communicate with others (Lei et al., 2020). Tacit knowledge is personal and difficult to formulate and rooted in actions, procedures, commitments, values and emotions (Le et al., 2020). The factors of action learning, conscious awareness and demonstrability are factors that have a significant influence on product innovation in the creative industry sector (Rengkung et al., 2019). For this reason, as the researcher proposed the alternative hypothesis as follows:

H1a: Tacit knowledge influences product innovation.

H1b: Tacit knowledge influences new product performance intervened by product innovation.

H1c: Tacit knowledge influences new product performance.

If tacit knowledge is only explained as the main influence on product innovation, then the strategic flexibility can affect the entire performance of innovation if it is supported by processes and structures that are also more flexible in the company (Sumiati, 2018). Organizations that have strategic flexibility will be more pro-active in responding to the wishes of their customers in a dynamic environment so that it will encourage companies to be more innovative (Martinez-Sanchez et al., 2020). The concept of strategic flexibility has been addressed by scholars across the strategy, management, marketing, innovation, entrepreneurship and operations disciplines. Multidimensional conceptualization of strategic flexibility are reactivity, proactivity, variety, speed, internally and externally (Herhausen et al., 2021). For this reason, as the researcher proposed the alternative hypothesis as follows:

H1d: Strategic flexibility influences product innovation.

H1e: Strategic flexibility influences new product performance intervened by product

innovation.

H1f: Strategic flexibility influences new product performance.

1. **Process Innovation**

Product innovation is presented as the development of new products while process innovation is presented as the development of new production processes (Ozturk & Ozen, 2021). Innovation must be an idea that is replicable at an economical cost and must meet certain needs (Alecia, 2021). The presence of both innovations had similar goals in the new product developments. In fact, it has been assumed that changes in management practices and processes can increase product and process innovation because process innovation introduces new input materials, equipment or systems into the company's production operations. The measurement of process innovation may use indicators of technological ideas, R&D functions and operational routines (Aliasghar et al., 2020). Previous study revealed that the process innovation determines the performance of new products in small and medium-sized companies (Saleem et al., 2020). Accordingly, the researcher proposed the alternative hypothesis as follows:

H2: Process innovation influences new product performance.

H2a: Strategic flexibility influences process innovation.

H2b: Strategic flexibility influences new product performance intervened by process

innovation.

1. **Inovasi Organisasi**

Organizational innovation is the implementation of new ideas to improve products, and new organizational processes or methods applied to organizations, groups, workplaces and operations (Waheed et al., 2019). Organizational innovation might be measured by indicators of knowledge sharing, atmosphere and change (Xie et al., 2021). Knowledge sharing indicates an individual's willingness to share knowledge with others in the organization. Atmosphere is a shared perception among organizational members regarding the work environment including policies, procedures and practices that support innovation. One of the drivers of internal expansion applied by every organization is managerial resources (Susesno et al., 2022). Organizational innovation can strengthen a company's ability to produce more innovative products. Companies with good organizational innovation have better new product performance (May & Stahl, 2016). In this way, the researcher proposed the alternative hypothesis as follows:

H3: Organizational innovation influences new product performance.

H3a: Strategic flexibility influences organizational innovation.

H3b: Strategic flexibility influences new product performance intervened by organizational

innovation.

Within cases in small companies, the analysis of relationship between product innovation, process innovation and organizational innovation with the company performance is carried out partially with significant results respectively (Exposito & Sanchis-Llopis, 2018). New product performance results should be observed competitively from the manager's perspective because it is an organizational capability and a source of competitive advantage (Guo et al., 2018). Tacit knowledge have an important role to produce innovative products (Rengkung et al., 2019). If tacit knowledge is only explained as the main influence on product innovation, then the strategic flexibility can affect the entire performance of innovation if it is supported by processes and structures that are also more flexible in the company (Sumiati, 2018). Analysis of product innovation, innovation processes and organizational innovations as intervening variable for tacit knowledge, strategic flexibility and new product performance as the gap from the previous studies.

H1

H2

H3

H1, H1b, H1c, H1e, H1f

H2b, H2c

H3b

H1a

H1d

H2a

H3a

Figure 1. **Research Framework**

Source: (May & Stahl, 2016)(Sumiati, 2018)(Dogbe et al., 2019)

(Rengkung et al., 2019)(Saleem et al., 2020)

**METHODS**

This study is causal research at 95% of confidence interval. This design allows the researcher to collect the data and construct the data structure to perceive the cause-and-effect on the research variables (Suhartanto, 2014). The causal research aims: 1) to understand exogenous and endogenous variables towards marketing phenomena, 2) to decide the nature of the relationship among the variables, and 3) to test the hypothesis of causal relationship variable.

To collect the data, this causal research design utilized survey as a method to collect the data from a sample through questionnaires comprising structured questions (Suhartanto, 2014). Questionnaires as the data collection was carried out by giving a series of questions or written statements to the respondents to be answered.

The target population was the owners of the three largest industrial groups of small companies, namely: 1) food industry, 2) wickers made from rattan, bamboo and etc, and 3) apparel industry to determine the performance of new products on product innovation, process innovation and organizational innovation (Diliana et al., 2019). Furthermore, the ideal limit of the population according to the provisions of the number of workers owned by small industries in Indonesia is between 5 to 9 people. Sampling was conducted randomly, thereby each individual had the same probability of being selected from the population and representing it. Basic formula of the sample refers to the number of the independent variables, namely N ≥ 50 + 8i (i is the number of independent variables) (Creswell & Creswell, 2018). Therefore, the sample of this study was 90 respondents: 50 + 8 (5). Meanwhile, the selection of the research setting, namely Garut, was due to its achievement as the best leather apparel industry in Indonesia (Ahmad Gabriel, 2021).

The data analysis technique in this quantitative study utilized statistical analysis. Verifiable data analysis will be used to test hypotheses and focus on the disclosure of the behaviour of research variables. The data analysis technique used to determine the corelative relationship in this study is Partial Least Square to provide a combination of three main goals, namely: 1) to estimating path analysis using latent contracting with multiple indicators, 2) does not assume a specific distribution so that it can be used for likert scales with a small sample count of less than100, and 3) to confirm or predict an applied, middle or grand theory. The program used to perform data analysis with path analysis method was Smart PLS.

The measurement scale used was interval as a scale that allows researchers to perform arithmetic calculations on data collected from respondents (Suhartanto, 2014). The measurement has no real zero value. The measure of attitude that is commonly used in business research is the Likert scale. The Likert scale is a scale that requires respondents to respond to the extent to which they agree or disagree about a perceived object, namely strongly agree, agree, neutral, disagree and strongly disagree.

**RESULTS AND DISCUSSION**

1. **Outer Model Testing**

The formulation or statement of hypotheses that have been formulated from the structure of the relationship of construct or latent variables can be carried out measurements of the dimensions or indicators of each construct variable completed. Variations in data values in dimensions or indicators will describe variations in construct variables. The strong or weak relationship of various indicators with construct variables is indicated by the size of the loading factor value owned by each dimension or indicator of the construct variable.

Based on the output of the Smart PLS program, the estimation of the parameter is the same as the estimated value of the standardized regression parameter or referred to as the path coefficient. With the discovery of the magnitude of the value of the path coefficient, the calculation of how much the value of the structural influence is directly, indirectly or the total influence of the predictor variable on the predictor can be known and determined. The magnitude of the coefficient values resulting from the estimation of parameters to describe and to describe Y on outer loadings.

First measurement showed that there are five indicators in the construct variables strategic flexibility, product innovation and process innovation with uncompleted status. This means that reactivity, proactivity, variety and speed does not match as strategic flexibility’s indicator on this study. Then, mass does not match as product innovation’s indicator on this study. Last, technological ideas does not match as process innovation’s indicator on this study.

Table 4. Outer Loadings

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Exogenous Variables** |  | **Endogenous Variables** |  | **Intervening Variables** |  |
| Tacit Knowledge  TK1-Action learning  TK2-Conscious awareness  TK3-Demonstrability | 0.910  0.930  0.884 | New Product Performance  KPB1-Novelty  KPB2-Meaningfulness KPB3-Superiority | 0.925  0.911  0.846 | Product Innovation  IPK1-Productivity  IPK2-Efficiency  Process Innovation  IPS2-R&D functions  IPS3-Operational routines | 0.777  0.886  0.830  0.849 |
| Strategic Flexibility  SF5-Internally  SF5-Externally | 0.848  0.880 |  |  |
|  |  | Organizational Innovation  IPO1-Knowledge sharing  IPO2-Atmosphere  IPO3-Change | 0.813  0.837  0.763 |

Source: (SmartPLS, 2022)

The result of outer model testing in this study are: 1) action learning, conscious awareness and demonstrability can develop a variable construct of tacit knowledge, 2) internally and externally can develop a variable construct of strategic flexibility, 3) novelty, meaningfulness and superiority can develop a variable construct of new product performance, 4) productivity and efficiency can develop a variable construct of product innovation, 5) R&D functions and operational routines can develop a variable construct of process innovation, and 6) knowledge sharing, atmosphere and change can develop a variable construct of organizational innovation. The estimated value of the λ parameter on the indicators of exogenous, endogenous and intervening variables shows a coefficient greater than 0.7 and is significant at α = 0.05. This means that the indicator sets a valid and reliable factor on each latent variable or its construct.

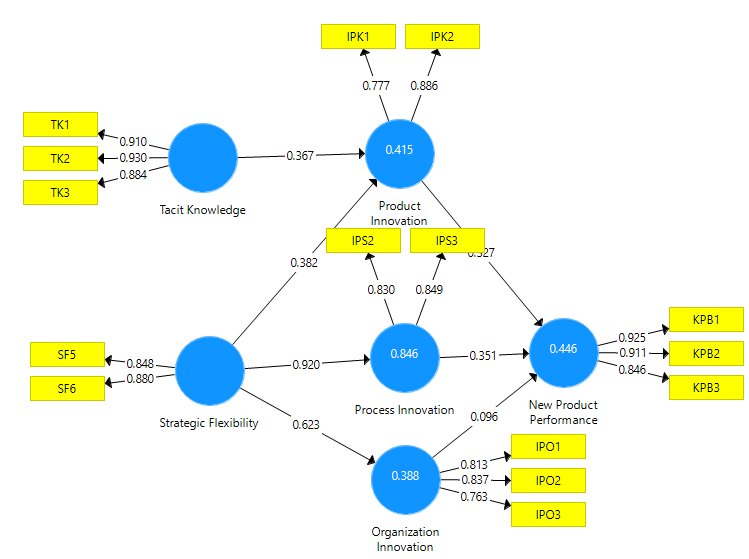


Figure 2. Outer Loadings

Source: (SmartPLS, 2022)

1. **Inner Model Testing**

Inner model testing can only be done if outer model testing has been declared valid and reliable by loading the value of R2 in the construct. The structural model in Partial Least Square is evaluated using the God of Fit Model, which is a way to be able to show the difference between the observed value and the value estimated by the model. Based on Table 5. it is known that the position of variable new product performance in the inner model is middle.

Table 5. Structural Model Testing

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Latent variables** | **AVE** | **Cronbach Alpha** | **Rho** | **R-Square** |
| Tacit Knowledge | 0.824 | 0.893 | 0.895 |  |
| Strategic Flexibility | 0.747 | 0.762 | 0.667 |  |
| Product Innovation | 0.694 | 0.767 | 0.601 | 0.399 |
| Process Innovation | 0.706 | 0.783 | 0.684 | 0.844 |
| Organizational Innovation | 0.648 | 0.734 | 0.753 | 0.380 |
| New Product Performance | 0.800 | 0.874 | 0.875 | 0.423 |

Source: (SmartPLS, 2022)

Square root of Average Variance Extracted will be used to analyze the discriminant validity of all constructs in the research model. It is known that all AVE value > 0.6, Cronbach Alpha > 0.7 and Rho value > 0.7 means that the measurement model of the six variables is consistent and has accuracy in making measurements and constructive testing. Fully measurement model on Figure 3. describes that five variables have a P-value level of < 0.05 so it can be said to be valid, except for the variable organizational innovation.

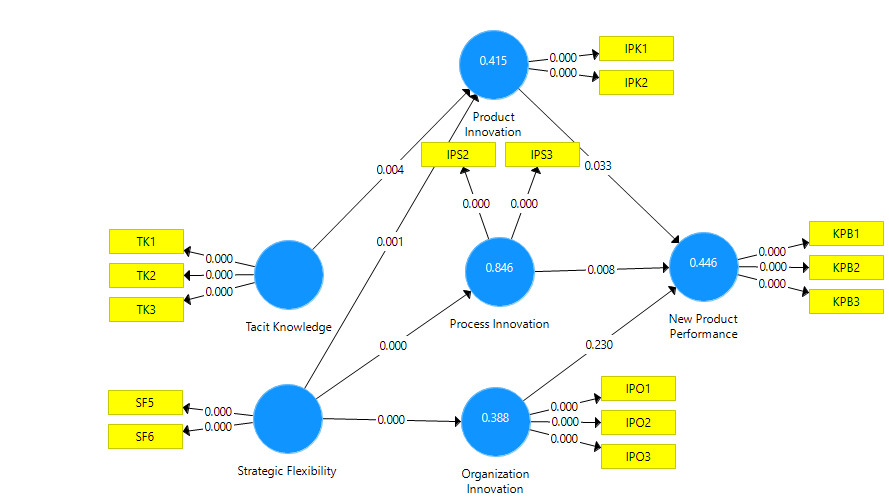


Figure 3. Bootstrapping (R-square)

Source: (SmartPLS, 2022)

1. **Hypothesis Testing of H1, H1a, H1b, H1c, H1d, H1e and H1f**

The first analysis was conducted to latent variable correlation described on outer model testing. Action learning, conscious awareness and demonstrability can develop a variable construct of tacit knowledge. Internally and externally can develop a variable construct of strategic flexibility. Novelty, meaningfulness and superiority can develop a variable construct of new product performance. Productivity and efficiency can develop a variable construct of product innovation. R&D functions and operational routines can develop a variable construct of process innovation. Knowledge sharing, atmosphere and change can develop a variable construct of organizational innovation.

The second analysis was conducted to determine the level of: 1) effect of product innovation to new product performance indicated by R2 value of 0.603 or 60.3%, 2) effect of tacit knowledge to product innovation indicated by R2 value of 0.612 or 61.2%, 3) indirect effect of tacit knowledge to new product performance intervened by product innovation variables R2 value of 0.369 or 36.9%, 4) direct effect of tacit knowledge to new product performance indicated by 0.863 or 86.3%, 5) effect of strategic flexibility to product innovation R2 value of 0.920 or 92%, 6) indirect effect of strategic flexibility to new product performance intervened by product innovation R2 value 0.556 or 55.6%, and 7) direct effect of strategic flexibility to new product performance indicated by R2 value 0.511 or 51.1%. Direct effect of tacit knowledge to new product performance highest than indirect effect intervened by product innovation. In other hand, indirect effect of strategic flexibility to new product performance intervened by product innovation highest than direct effect. In fact, this study revealed product innovation can be intervening variables if strategic flexibility as exogenous variables and new product performance as endogenous variables.

The third analysis was conducted to determine whether product innovation affected new product performance. In this study, the main hypothesis that was tested was H1, H1a, H1b, H1c, H1d, H1e and H1f. The significance of P-value 0.00 < 0.05 means that H1, H1a, H1d, H1e and H1f described in Table 5. was accepted and widely applied outside the research focus. The results of this study are in line with the previous study that stated that new products performance were positively and significantly influenced by product innovation (Dogbe et al., 2019), product innovation were positively and significantly influenced by tacit knowledge, (Rengkung et al., 2019), innovation were positively and significantly influenced by strategic flexibility (Sumiati, 2018).

Table 5. **Hyphothesis testing of H1, H1a, H1b, H1c, H1d, H1e and H1f**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Hyphothesis | |  | STDEV | T-values | P-values | R-square |
| H1 | Product innovation —› New product performance | 0.327 | 0.176 | 1.863 | 0.033 | 0.603 |
| H1a | Tacit knowledge —› Product innovation. | 0.367 | 0.136 | 2.698 | 0.004 | 0.612 |
| H1b | Tacit knowledge —› Product innovation —› New product performance | 0.120 | 0.104 | 1.147 | 0.127 | 0.369  (0.612\*0.603) |
| H1c | Tacit knowledge —› New product performance | 0.120 | 0.104 | 1.147 | 0.127 | 0.863 |
| H1d | Strategic flexibility —› Product innovation | 0.920 | 0.036 | 25.657 | 0.000 | 0.920 |
| H1e | Strategic flexibility —› Product innovation —› New product performance | 0.125 | 0.065 | 1.932 | 0.029 | 0.556  (0.920\*0.603) |
| H1f | Strategic flexibility —› New product performance | 0.507 | 0.101 | 5.046 | 0.000 | 0.511 |

Source: (SmartPLS, 2022)

1. **Hypothesis Testing of H2, H2a and H2b**

The first analysis was conducted to latent variable correlation described on outer model testing. Internally and externally can develop a variable construct of strategic flexibility. Novelty, meaningfulness and superiority can develop a variable construct of new product performance. R&D functions and operational routines can develop a variable construct of process innovation.

The second analysis was conducted to determine the level of: 1) effect of process innovation to new product performance indicated by R2 value of 0.603 or 60.3%, 2) effect of strategic flexibility to process innovation indicated by R2 value of 0.920 or 92%, and 3) indirect effect of strategic flexibility to new product performance intervened by process innovation R2 value of 0.554 or 55.4%. Indirect effect of strategic flexibility to new product performance intervened by process innovation highest than direct effect. In fact, this study revealed process innovation can be intervening variables if strategic flexibility as exogenous variables and new product performance as endogenous variables.

In this study, the main hypothesis that was tested was H2, H2a and H2b. The significance of P-value 0.00 < 0.05 means that H2, H2a and H2b described in Table 6. was accepted and widely applied outside the research focus. Previous study revealed that the process innovation determines the performance of new products in small and medium-sized companies (Saleem et al., 2020), and innovation were positively and significantly influenced by strategic flexibility (Sumiati, 2018).

Table 6. **Hyphothesis testing of H2, H2a and H2b**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Hyphothesis | |  | STDEV | T-values | P-values | R-square |
| H2 | Process innovation —› New product performance | 0.351 | 0.143 | 2.458 | 0.008 | 0.603 |
| H2a | Strategic flexibility —› Process innovation. | 0.920 | 0.036 | 25.657 | 0.000 | 0.920 |
| H2b | Strategic flexibility —› Process innovation —› New product performance | 0.323 | 0.131 | 2.472 | 0.008 | 0.554  (0.920\*0.603) |

Source: (SmartPLS, 2022)

1. **Hypothesis Testing of H3, H3a and H3b**

The first analysis was conducted to latent variable correlation described on outer model testing. Internally and externally can develop a variable construct of strategic flexibility. Novelty, meaningfulness and superiority can develop a variable construct of new product performance. Knowledge sharing, atmosphere and change can develop a variable construct of organizational innovation.

The second analysis was conducted to determine the level of: 1) effect of organizational innovation to new product performance indicated by R2 value of 0.464 or 46.4%, 2) effect of strategic flexibility to organizational innovation indicated by R2 value of 0.623 or 62.3%, and 3) indirect effect of strategic flexibility to new product performance intervened by organizational innovation R2 value of 0.289 or 28.9%. Indirect effect of strategic flexibility to new product performance intervened by organizational innovation lowest than direct effect. In fact, this study revealed organizational nnovation cannot be intervening variables if strategic flexibility as exogenous variables and new product performance as endogenous variables.

In this study, the main hypothesis that was tested was H3, H3a and H3b. The significance of P-value 0.00 < 0.05 means that H3a described in Table 7. was accepted and widely applied outside the research focus. Previous study revealed that innovation were positively and significantly influenced by strategic flexibility (Sumiati, 2018).

Table 7. **Hyphothesis testing of H3, H3a and H3b**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Hyphothesis | |  | STDEV | T-values | P-values | R-square |
| H3 | Organizational innovation —› New product performance | 0.096 | 0.129 | 0.724 | 0.230 | 0.464 |
| H3a | Strategic flexibility —› Organization innovation. | 0.623 | 0.064 | 9.679 | 0.000 | 0.623 |
| H3b | Strategic flexibility —› Organizational innovation —› New product performance | 0.060 | 0.079 | 0.752 | 0.227 | 0.289  (0.623\*0.464) |

Source: (SmartPLS, 2022)

**CONCLUSION**

After analyzing the theories and the results of the previous studies, the research concluded the results of the main hypotheses testing as follows: 1) product innovation can be intervening variables if strategic flexibility as exogenous variables and new product performance as endogenous variables in the leather apparel industry in Indonesia, 2) process innovation can be intervening variables if strategic flexibility as exogenous variables and new product performance as endogenous variables in the leather apparel industry in Indonesia, and 3) organizational innovation cannot be intervening variables if strategic flexibility as exogenous variables and new product performance as endogenous variables in the leather apparel industry in Indonesia. To improve new product performance, every leather apparel industry in Indonesia must first increase tacit knowledge, strategic flexibility, product innovation and process innovation.

Despite successfully proving the research hypotheses, the small number of samples becomes the drawback of the study. Further studies are suggested to examine path analyze research framework are exogenous variables (strategic flexibility and tacit knowledge), endogenous variables (organizational innovation and new product performance) and intervening variables (product innovation and process innovation).

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