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

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ABSTRACT

Objectives: Global Innovation Index revealed that the innovation performance of Indonesia is relatively poor compared to several ASEAN countries. The lowest indicator of innovation performance is related to business sophistication. In business activities, some experts identify innovation as the key factor in company competitiveness. The author plans to analyze product innovation, innovation processes, and organizational innovations as intervening variables.

Methodology: This study is causal research with a 95% confidence interval in collecting and constructing data structures to evaluate the cause-and-effect relationship of the variables. The primary data was obtained through a survey of 90 small-scale leather apparel companies in Indonesia. Subsequently, the data was analyzed using a 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 there is 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 suggests further research to examine the path analysis 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 capitalistic success is an endeavor that has been proposed in the literature for more than half a century. Controlling 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 national characteristics, the company strategies, and the type of services provided (Bustinza et al., 2018). According to the company size, the percentage of 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 process innovation is essential and dependent on scientific advances in terms of tools and methods of innovation to lessen the meeting time spent by customers and suppliers (Maier et al., 2015). As a starting point in the process of 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 to process innovation (Jokubauskienė & Vaitkienė, 2019). Innovation is widely recognized as the key factor in 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 for the survival of small companies. Despite a 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 innovation performance in Indonesia is business sophistication with a total value of 17.5 points, which is in the lowest rank at 110th. Business sophistication is assessed based on 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. Therefore, companies need such prolific and creative individuals that can 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	Infrastructure	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)

Innovation in organizational contexts exhibits the combination of several new forms of activities that enabled an organization to gain and maintain a 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 behavioral 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, cultural innovation is considered to accommodate unusual ideas by the organization in the form of continuously improving 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 valuable and rare resources to build a company's competitive advantage. Quality products may provide 30% to 60% of the profit to company (Heizer et al., 2020). Therefore, product quality is a critical prerequisite to the company's performance in terms of new product development (Yang & Ju, 2017).

Small businesses generally process scarce resources that prevent product innovation of the company (Löfqvist, 2017). In small businesses, the analysis of the relationship between product innovation, process innovation, organizational innovation, and company performance is solely carried out partially with significant results respectively (Exposito & Sanchis-Llopis, 2018). Accordingly, the researcher is analyzing 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. Because the previous research was only partially observed. Another hand, the author plans to analyze product innovation, innovation processes, and organizational innovations as intervening variables. 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 value 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 and what is desired by the consumers. In other words, companies are expected to be able to choose and decide on appropriate strategies to encounter business competition (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 a 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's performance will be the total assessment. The new product performance is a vital instrument to achieve success and prosperity in small companies. Technological developments, the increase in global market competition, and market growth are the needs that require companies to develop new products continuously (Gofur, 2019; Handaruwati, 2020; Maulani & Hamdani, 2019). Customers are always demanding innovative products according to their preferences.

2. Product Innovation

Product innovation is possibly observed from the functional progress of a product that allows the product to be one step ahead of 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 time, fuel savings, materials, working comfort, and repairability. It is crucial to plan and implement 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, the researcher proposed the alternative hypothesis as follows:

H1: Product innovation influences new product performance.

Previous research describes that tacit knowledge has an important role to produce innovative products (Rengkung et al., 2019). Tacit knowledge is the 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, 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 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 proactive in responding to the wishes of their customers in a dynamic environment which 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. A multidimensional conceptualization of strategic flexibility is reactivity, proactivity, variety, speed, internally and externally (Herhausen et al., 2021). For this reason, 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.

3. 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). A previous study revealed that 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.

4. Organizational Innovation

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 an 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 the 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 has 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 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). In this way, the researcher proposed the research framework as follows:

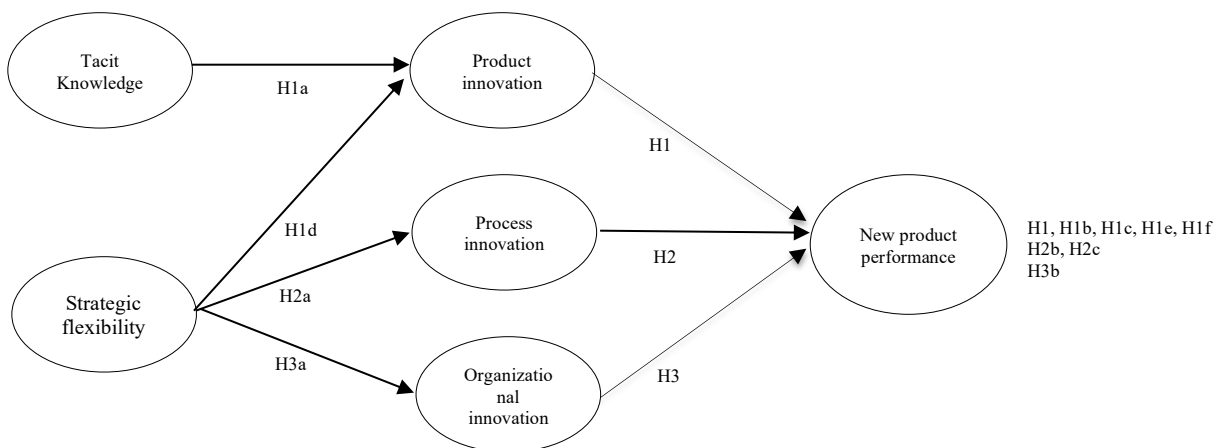


Figure 1. **Research Framework**

Source: (May & Stahl, 2016)(Sumiati, 2018)(Dogbe et al., 2019)
(Rengkung et al., 2019)(Saleem et al., 2020)

Analysis of product innovation, innovation processes, and organizational innovations as an intervening variable for tacit knowledge, strategic flexibility, and new product performance as the gap from the previous studies.

METHODS

This study is a causal research at a 95% confidence interval. This design allows the researcher to collect the data and construct the data structure to perceive the cause-and-effect of 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 variables. To collect the data, this causal research design utilized a 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. Questionnaires as instruments used are distributed to respondents via email

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. The basic formula of the sample refers to the number of independent variables, namely $N \geq 50 + 8i$ (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 behavior of research variables. The data analysis technique used to determine the correlative relationship in this study is Partial Least Square to provide a combination of three main goals, namely: 1) to estimate 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 than 100, and 3) to confirm or predict an applied, middle or grand theory. The program used to perform data analysis with the 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 by 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 constructed variables is indicated by the size of the loading factor value owned by each dimension or indicator of the constructed variable.

Based on the output of the Smart PLS program, the estimation of the λ 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 X and λ to describe Y on outer loadings.

The 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 do not match as strategic flexibility indicators on this study. Then, mass does not match as product innovation indicator on this study. Last, technological ideas do not match as process innovation indicators on this study.

Table 3. Outer Loadings

Exogenous Variables	λ	Endogenous Variables	λ	Intervening Variables	λ
<i>Tacit Knowledge</i>		<i>New Product Performance</i>		<i>Product Innovation</i>	
TK1-Action learning	0.910	KPB1-Noveltly	0.925	IPK1-Productivity	0.777
TK2-Conscious awareness	0.930	KPB2-Meaningfulness	0.911	IPK2-Efficiency	0.886
TK3-Demonstrability	0.884	KPB3-Superiority	0.846	<i>Process Innovation</i>	
<i>Strategic Flexibility</i>				IPS2-R&D functions	0.830
SF5-Internally	0.848			IPS3-Operational routines	0.849
SF5-Externally	0.880			<i>Organizational Innovation</i>	
				IPO1-Knowledge sharing	0.813
				IPO2-Atmosphere	0.837
				IPO3-Change	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 $\alpha = 0.05$. This means that the indicator sets a valid and reliable factor on each latent variable or its construct.

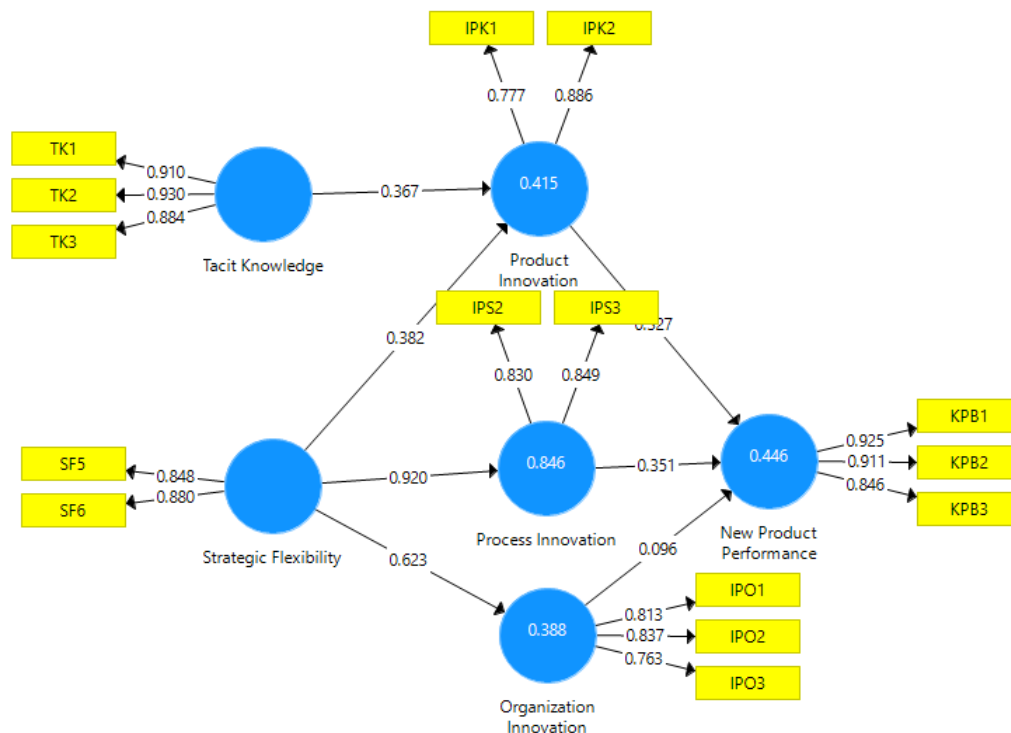


Figure 2. Outer Loadings
Source: (SmartPLS, 2022)

2. 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 R^2 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 4. 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)

The 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 values > 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.

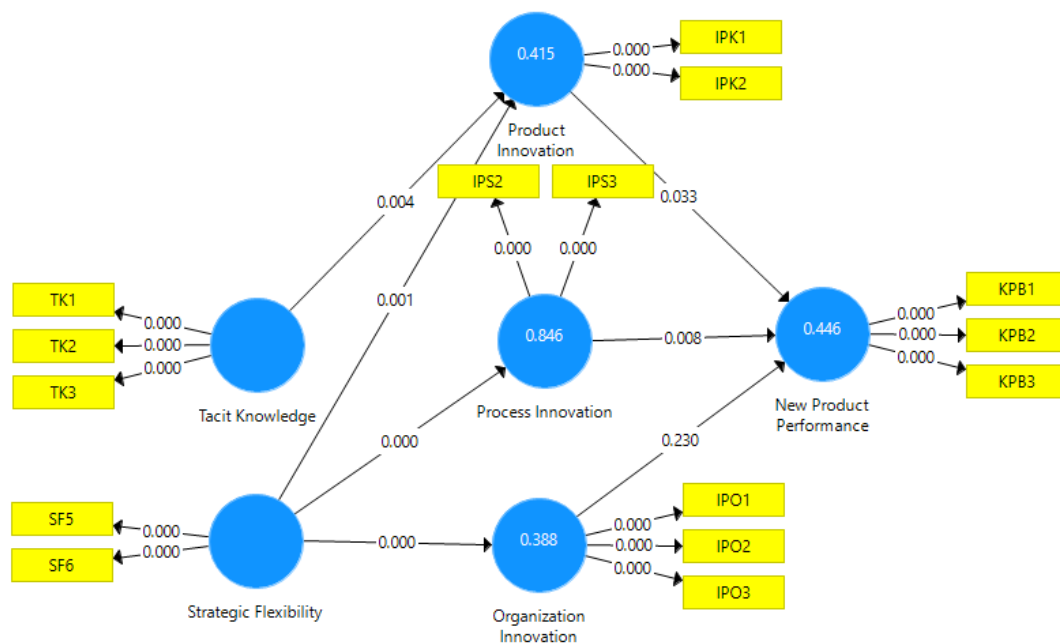


Figure 3. Bootstrapping (P-Value)
Source: (SmartPLS, 2022)

3. 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) the effect of product innovation to new product performance indicated by R^2 value of 0.603 or 60.3%, 2) the effect of tacit knowledge to product innovation indicated by R^2 value of 0.612 or 61.2%, 3) indirect effect of tacit knowledge to new product performance intervened by product innovation variables R^2 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 R^2 value of 0.920 or 92%, 6) indirect effect of strategic flexibility to new product performance intervened by product innovation R^2 value 0.556 or 55.6%, and 7) direct effect of strategic flexibility to new product performance indicated by R^2 value 0.511 or 51.1%. The direct effect of tacit knowledge to new product performance is highest than the indirect effect intervened by product innovation. On the other hand, the indirect effect of strategic flexibility to new product performance intervened by product innovation is highest than the direct effect. In fact, this study

revealed product innovation can be an intervening variable if strategic flexibility is an exogenous variable and new product performance is an endogenous variable.

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 was positively and significantly influenced by product innovation (Dogbe et al., 2019), product innovation was positively and significantly influenced by tacit knowledge, (Rengkung et al., 2019), innovation was positively and significantly influenced by strategic flexibility (Sumiati, 2018).

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

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

Source: (SmartPLS, 2022)

4. 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) the effect of process innovation to new product performance indicated by R^2 value of 0.603 or 60.3%, 2) the effect of strategic flexibility to process innovation indicated by R^2 value of 0.920 or 92%, and 3) indirect effect of strategic flexibility to new product performance intervened by process innovation R^2 value of 0.554 or 55.4%. The indirect effect of strategic flexibility to new product performance intervened by process innovation is highest than the direct effect. In fact, this study revealed process innovation can be an intervening variable if strategic flexibility is an exogenous variable and new product performance is an endogenous variable.

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. A previous study revealed that process innovation determines the performance of new products in small and medium-sized companies (Saleem et al., 2020), and innovation was positively and significantly influenced by strategic flexibility (Sumiati, 2018).

Table 6. Hypothesis testing of H2, H2a, and H2b

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

Source: (SmartPLS, 2022)

5. 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) the effect of organizational innovation to new product performance indicated by R^2 value of 0.464 or 46.4%, 2) the effect of strategic flexibility on organizational innovation indicated by R^2 value of 0.623 or 62.3%, and 3) indirect effect of strategic flexibility to new product performance intervened by organizational innovation R^2 value of 0.289 or 28.9%. The indirect effect of strategic flexibility to new product performance intervened by organizational innovation lowest than the direct effect. In fact, this study revealed organizational innovation cannot be an intervening variable if strategic flexibility is an exogenous variable and new product performance is an endogenous variable.

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. The previous study revealed that innovation was positively and significantly influenced by strategic flexibility (Sumiati, 2018).

Table 7. Hypothesis testing of H3, H3a, and H3b

Hypothesis	λ	STDEV	T-values	P-values	R-square
H3 Organizational innovation \rightarrow New product performance	0.096	0.129	0.724	0.230	0.464
H3a Strategic flexibility \rightarrow Organization innovation.	0.623	0.064	9.679	0.000	0.623
H3b Strategic flexibility \rightarrow Organizational innovation \rightarrow 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 researchers concluded the results of the main hypotheses testing as follows: 1) product innovation can be an intervening variable if strategic flexibility is an exogenous variable and new product performance is an endogenous variable 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 analysis 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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