



Research article

Locus of control, environment, and small-medium business performance in pilgrimage tourism: The mediating role of product innovation

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ABSTRACT

Small and medium businesses in pilgrimage tourism are one of the most vulnerable sectors in the post-pandemic due to product innovation and business activities. This study aims to investigate the impact of locus of control and environment on business performance, as well as to examine the role of product innovation. The data of this research were retrieved using a self-administered survey from small and medium businesses on Islamic pilgrimage in East Java of Indonesia. Using structural equation modeling, the findings indicate that locus of control and environment can support product innovation and small-medium business performance. Furthermore, this present research shows that there is a robust link between product innovation and performance. This research also reveals that product innovation partially mediates the link between locus of control and business performance, as well as the environment and small-medium business performance in pilgrimage tourism. These findings raise the need for small and medium enterprises to take the initiative for product innovations to escalate business performance.

1. Introduction

Recent studies on entrepreneurship agree that small-medium enterprises are seen as prominent in social-economic endeavors and economic growth [1,2]. In addition, some scholars have recognized the major contribution of small-medium enterprises to reaching sustainable local economic development and poverty alleviation through job creation [3,4]. Pilgrimage tourism is often linked with small and medium enterprises [5]. Prior studies remarked that pilgrimage tourism not only provides economic benefits but also supports cultural preservation and the welfare of local communities [6,7]. The presence and well-managed pilgrimage tourism have greatly altered how local businesses operate and the creation of new enterprises in society [8].

However, the COVID-19 pandemic has hampered small and medium enterprises in Indonesia and other countries [9]. One of the

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most frequently reported vulnerable groups is small and medium business in the religious tourism sector [10]. This is due to the fact that pilgrimage tourism involves the physical activity of gathering, which has forced many places of worship to temporarily close their doors or impose strict limits on the number of pilgrims allowed [11]. In the Indonesian context, despite some scholars believing that small and medium businesses can survive during the crisis [e.g., 12, 13], this claim is still subject to questioning pertaining to how to recover their performance and make the small business enterprises more sustainable in the post-COVID-19 pandemic, primarily for pilgrimage tourism.

Small and medium businesses in the religious tourism sector rely on the circumstances. Religious tourism that is frequently visited among Muslims in Indonesia is by pilgrimage to explore the tombs of Islamic leaders (*walisongo*), which are scattered in various regions around Indonesia [14]. The existence of pilgrimage tourism has inspired various elements of the community to optimize the opportunities available through real activities that contribute to local economic value [15]. The diversity of business activities in the community also colored by the rendition of small and medium businesses in the religious tourism area of *walisongo*, thus providing different products compared to tourism areas elsewhere. Some preliminary studies [e.g., 16, 17] remarked that the environment plays a significant role in influencing the performance of small and medium businesses in the tourism sector.

Therefore, there is an increasing demand for ways to improve the performance of small and medium enterprises. Performance is a series of management activities measured on the basis of comparisons with various standards [18]. For small and medium businesses, performance is often associated with product innovation. Product innovation is provided to meet market demand and to remaining attract consumers to buy [19,20]. From consumer's lenses, they will prefer to select the products that make them interested, and then the entrepreneurs will compete to innovate the products produced [21–23]. In this regard, innovation is necessary to follow the change. Some studies pointed out that product innovation is required for small and medium business performance to maintain survival along with increasing competition [24–26].

In addition to product innovation, stimulating the performance of small and medium businesses requires a need for self-control on the part of the entrepreneur. Self-control, or internal locus of control, consists of one category. Internality is people believe on something that happen in life, including success or failure, are determined by the abilities and efforts that they make independently [27,28]. Internal locus of control happens when they always take a role and responsibility in every decision-making process [29]. Business owners with an internal locus of control tend to take initiative and are proactive in seeking opportunities, which in turn can escalate business performance [30]. Later, several prior studies mentioned that internal locus of control can contribute to improved small and medium business performance by driving proactive behavior, effective problem-solving, resilience, continuous learning, and increased employee motivation [31,32].

This study provides three primary contributions. First, this research adds to the literature on small and medium business performance by revealing the impact of locus of control and environment, as well as product innovation, which were overlooked in the preliminary literature. The existing studies on small and medium business performance were concerned with technological information [e.g., 33; 34], social media usage [e.g., 13; 35], and human resource management [e.g., 36, 37]. Second, this study adds insight by involving small and medium enterprises in pilgrimage tourism, which promotes a unique pattern for small businesses. The focus on pilgrimage tourism in Indonesia is unique, as religious tourism has been a tradition for Indonesians that can involve the potential for business performance. Third, through empirically investigation of this relationship, this study can promote critical suggestions to enhance the business performance of religious tourism as it contributes to the Indonesian economy.

The rest of this paper is provided as follows. The next section stipulates a literature review and hypothesis development. The next section outlines the study design, which covers data collection, measurement, and analysis. The empirical findings are provided next, and then the conclusions, implications, and suggestions are presented in the last section.

1.1. Literature review and hypothesis development

In recent decades, numerous researches on how to enhance small and medium business performance as its prominent in alleviating poverty and escalate economic growth. This section provides the literature and hypothesis development for promoting business performance.

1.2. Religious tourism in Indonesia

The concept of a tourist area is a particular location or region that offers authenticity in terms of social culture, customs, craftsmanship and art, contemporary art, classic architecture, countryside spatial structure, and other attractions [38]. Some studies stated that religious tourism is meant as a tourist pursuit in places that have a special sense for religious people, commonly some sites of worship that have benefits [39,40]. Hence, religious tourism attractions have a wide-ranging coverage, including each place that can arouse the taste of religiousness concerned with religious tours, which are distressed with reinforcing religious insights and experiences as well as deepening the spiritual sense [15]. In Indonesia, Islamic religious tourism to the tomb of the Guardians is well-known as the pilgrimage of *walisongo*. In its history, these guardians spread the shariah of Islam in the fourteenth-century, which commenced from the north coast of Java in locations such as Surabaya, Gresik, Lamongan, Tuban in East Java, Demak, Kudus in Central Java, and Cirebon in West Java.

1.3. Locus of control, product innovation, and business performance

The basic term of locus of control first proposed by Rotter [41]—is an action in which an individual believes that the output

depends on their behavior or characteristics [42]. Opportunity arises through the use of a variety of potential behaviors that exist [13]. An individual will learn to make a decision based on their potential and also on the opportunities that are available. In this regard, people who have an internal locus of control can adapt to the environment and the changes that occur in that environment [28]. They strive to solve the problems they face by looking for various alternative solutions. Unfortunately, because of their lack of locus of control, some small and medium businesses may fail in supporting their business performance.

Several studies have reported that entrepreneurs have a greater locus of control than others. For example, Bernardus et al. [43] remarked that the internal locus of control has a positive influence on entrepreneurial intentions. In addition, Arkorful and Hilton [44] stated that the internal locus of control had a direct link on entrepreneurial intentions and behaviors. According to these studies, people who have a high internal locus of control feel that they can control outcomes and more persistently build and manage new ventures. On the other hand, an externally controlled person can be more passive when one believes that they cannot control the outcome. Some scholars have found consistency in the linkage between locus of control and venture performance [31,32].

Small and medium businesses typically have small embodies with few managerial compositions. According to Ajzen [27], people with a locus of control are convinced that success and failure enable them to promote innovation. Individuals with a locus of internal control are more likely to take risks. They perceive that their decisions and actions can affect the outcome. In this context, individuals will be more creative in developing new ideas, trying out untested approaches, and overcoming barriers that may arise in the innovation process. Several studies remarked that there is a direct link between locus of control and innovation. For instance, Xu et al. [45] noted that locus of control can promote innovative behavior among Chinese employees, which further promotes the innovation of the company's product. Therefore, the first set of hypotheses is extended below.

H1. Locus of control has a significant influence on business performance

H2. Locus of control has a significant influence on product innovation

1.4. *Environment, product innovation, and business performance*

A supportive environment provides the necessary resources and support for small and medium businesses to thrive. Some overarching environmental principles include family entrepreneurship, business circumstances, geographical sites, and other supports [46]. In addition, a prior study remarked that small and medium businesses often confront challenges in accessing capital, and a supportive environment includes a range of funding options, such as grants, loans, and investment opportunities [47]. In summary, some environments inherent in small and medium businesses may promote the perfect setting for business performance. This is consistent with prior studies connecting the environment with escalated small and business performance. Hence, the environment is the best complement for small and medium businesses and may motivate entrepreneurs' continuous business performance.

Environments promote product innovation through the involvement of culture, creativity, and circumstance. In such an environment, businesses are escalated to think creatively outside the box and deal with innovative ideas. Small and medium businesses in religious tourism are required to differentiate products since they are more likely to provide almost the same products [47]. In this matter, innovation can drive to the creation of new products that are unlike anything else on the market [48]. In addition, environments promote product innovation by providing individuals with the necessary resources to bring their ideas to fruition [49]. In sum, it may be possible for businesses to take their ideas from concept to reality, which can lead to the development of new and innovative products.

Later, some consensus reported that product innovation has a robust impact on small and medium business performance [21,22]. Using innovative products, small and medium businesses can gain a competitive advantage, increase sales, and increase customer satisfaction [23]. This advantage can result in increased market share, increased customer attractiveness, and reduced level of competition in the market. To explain this, several papers pointed out that innovative products can help strengthen the business's brand image [50,51]. Thus, providing a unique and positive experience to customers can build a reputation as innovation leaders in their business, which in turn can increase brand awareness, increase customer loyalty, and strengthen the business position in consumer minds [51]. Therefore, the second set of hypotheses is presented below.

H3. Environment has a significant influence on business performance

H4. Environment has a significant influence on product innovation

H5. Product innovation has a significant influence on business performance

1.5. *Product innovation as mediator*

Drawing from the innovation theory developed by Schumpeter [52], this study explains the role of product innovation in linking the locus of control and small-medium business performance. Some scholars acknowledged that innovation is considered a major driver of competitiveness [21,22]. In addition, a preliminary study described product innovation as the quest for a unique product or raising the value added. Product innovation creation can be formed into quality, function, design, and technology, which can be distinct from others [54]. Later, Hutahayan and Yufra [54] noted that if individuals seem to have a consciousness locus of control, their tendency is to create such an innovative product. Thus, individuals' awareness of product innovation motivates them to achieve greater business performance. In addition, Rum [55] stated that product innovation can explain the connectivity between product innovation and business performance.

In addition, product innovation can mediate the link between environment and business performance. Environment refers to the external dimensions that influence a business, such as market competition and technological advancements. On the other hand, business performance links to the financial and operational success of a business [56]. One of the ways that product innovation mediates the link between the entrepreneurial environment and business performance is by allowing businesses to stay competitive in the market [57]. With the constant changes in the entrepreneurial environment support, businesses need to adapt to new market demands and trends. Product innovation allows businesses to produce new products or enhance existing ones, which can help them stay ahead of the competition. Therefore, the last set of hypotheses is presented below.

H6. Product innovation mediates locus of control and business performance

H7. Product innovation mediates environment and business performance

2. Method and materials

2.1. Study design

A quantitative study with descriptive and explanatory research is encompassed in this research to analyze the linkage between locus of control, environment, and small-medium business performance, as well as examine product innovation as a mediator. This study was conducted in religious tourism, which is often visited among Muslims in Indonesia by pilgrims to explore the tombs of Islamic religious leaders (*walisongo*). The data was analyzed using PLS-SEM since the challenges to retrieve large group of samples. While this study limited to small group of samples. According to Hair et al. [58], PLS-SEM can provide results that are at least as excellent as those of CB-SEM.

2.2. Participants and data collection

Data were retrieved from May to June 2023 using a self-administered survey with a Google Form. The questionnaires were set up in the link that further distributed through a WhatsApp group of small and medium businesses in religious tourism in East Java of Indonesia. Due to the majority of Islamic pilgrimage tourism being located in East Java, this research is forecast to be relevant for supporting small and medium enterprises in East Java and Indonesia. A convenience sampling method was adopted to easily approach small and medium businesses in the religious tourism area, following the proposed criteria: (1) entrepreneurs who have been conducting their business for approximately two years and (2) entrepreneurs who are involved in technology and/or social media. A total of 367 observations were thus gathered from five religious tourism sites in East Java.

After screening the collected data, we removed 32 redundant observations and incomplete questionnaires. In the end, we used 335 valid questionnaires to address the research questions (91.28 response rates). The respondents were asked for their volunteerism and anonymity to meet ethical clearance. As shown in Table 1, the majority of respondents in this study were male, with a percentage of 67.2 percent. Approximately 77 percent of respondents have business experience spanning more than two years, with a business concern for goods (89.6 %) and services (10.45 %). Most of the respondents (55.2 %) had graduated from senior high schools, 21.3 % had bachelor's degrees, and the rest graduated from elementary and junior high schools. More than 55 % of participants have at least IDR 3,000,000 of their income, while 27.2 percent have business revenue greater than IDR 5,000,000 monthly.

2.3. Instrument development and measurement

The questionnaire for this research was proposed based on well-established papers and relevant theories to ensure reliability and validity. The constructs of this work were performed on a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree. To estimate the locus of control, we adopted instruments from Rotter [41], which cover some indicators of responsibility,

Table 1
Sample characteristics ($n = 335$).

Category	Description	Frequency	%
Gender	Male	110	32.8
	Female	225	67.2
Business type	Services	35	10.4
	Products	300	89.6
Business experience	Less than 2 years	74	22.1
	More than 2 years	261	77.9
Educational level	Elementary School	68	20.3
	Junior High School	10	3.0
	Senior High School	185	55.2
	Bachelor Degree	72	21.5
Average Income	≤ IDR 1,000,000	22	6.6
	> IDR 1,001,000–3,000,000	31	9.3
	>IDR 3,000,001–5,000,000	191	57.0
	IDR 5,000,000 and more	91	27.2

discipline, the soul of leadership, control of the external environment, control of the internal environment, the environmental opportunity, sources, and control of ideas. In addition, to measure product innovation, we adopted some major studies [21,22], which cover some dimensions of uniqueness, values, technological use, and new materials. Later, small and medium business performance was calculated using indicators from Astadi et al. [59], which cover sales growth, financial and employee growth, market expansion, and profitability. Lastly, to measure the environment, we adopted instruments from Prajogo [60], which consist of family support, business dynamics, and circumstance support. The instruments were translated using back-to-back translations from English to Bahasa Indonesia to reach a better understanding.

2.4. Data analysis

This present work elaborated PLS-SEM for the estimation of theoretical models and hypotheses for cross-sectional. The use of this method is beneficial to analysis the measurement and structural model in an effort to understand the linkage between variables and hypotheses priorly proposed. Before predicting the hypotheses, a measurement model was provided to ensure the discriminant validity, convergent validity, and composite reliability of the construct in the model. This research estimated the reliability and validity by examining the discriminant and convergent validity. Furthermore, structural model was performed to analysis internal consistency. After accomplishing those requirements, this study followed hypotheses testing (with direct and indirect effects) using bootstrapping resampling procedure [61].

3. Results

3.1. Outer model estimation

As previously mentioned, this study refers to the procedures from Hair et al. [58], which cover (1) measurement model and (2) structural model assessment, and (3) hypothesis testing. Data analytics techniques with Smart-PLS version 3.0 are used to evaluate outer models with convergent validity, discriminant validity, and composite reliability. The convergence validity with reflective indicators is calculated on the basis of the linkage between the item score or component score. As provided in Table 2, loading factor values demonstrated at 0.7 and higher are considered ideal and valid.

As informed in Table 2, the statistical estimation exceeded the minimum cut-off value for composite reliability and convergent validity (AVE), which ranges from 0.604 to 0.769. In addition, all items have CR scores ranging from 0.884 to 0.913, indicating that composite reliability was established. However, we removed one item for the environment and two items for the locus of control, since the value is lower than 0.5. Later, we also performed discriminant validity using the robust model by considering the square root of the AVE of each construct. As shown in Table 3, the proposed model has met discriminant validity, taking into consideration that each loading value of a latent variable is upper than the other in the table (see bold).

Table 2
Validity and reliability.

Code	Construct	Loading Factor	CR	AVE
BP	Business Performance		0.900	0.643
BP1	The number of products/services sold has increased constantly	0.778		
BP2	The capital has always increased	0.808		
BP3	Every year, we recruit new staff/employee	0.832		
BP4	Sales and revenue targets are always exceeded	0.826		
BP5	The work that is currently underway is in line with the purpose	0.764		
PI	Product Innovation		0.913	0.677
PI1	Products/services we sell are unique	0.842		
PI2	Products/services are able to compete and outperform among other	0.846		
PI3	Product/service has its own variation of innovation compared to other	0.785		
PI4	Products/services have a different sales power value than others.	0.820		
PI5	Products/services involved new materials and technology	0.819		
LC	Locus of Control			
LC1	I can make the decision	0.879	0.952	0.769
LC2	I can identify new job/business opportunities	0.902		
LC3	I can think creatively	0.893		
LC4	I can commercialize new ideas or developments	0.884		
LC5	I am disciplined at work	0.846		
LC6	I compared the price before I make a decision	0.855		
EN	Environment		0.884	0.604
EN1	I know entrepreneurship from my parents	0.710		
EN2	My circumstances support in the business	0.762		
EN3	Family supports the business	0.834		
EN4	Majority of my neighbors work as entrepreneurs	0.817		
EN5	I have good entrepreneurship environments.	0.756		

3.2. Inner model estimation

After evaluating the measurement model, we subsequently evaluate the internal model or also known as structural model evaluation. Hair et al. [58] suggested five steps of procedure in structural model estimation: (1) checking collinearity, (2) analyzing path coefficient, (3) evaluating of R-Square (R^2), (4) assessing the size effect of (f^2), and (5) checking relevant prediction of Q^2 . As priorly mentioned, a collinearity estimation is performed to know the inter-variable has high collinearity or not. The method is to see the variance inflation factor (VIF) coefficient value, where the VIF value must be less than 5.00 [58]. From the statistical estimation, the value of VIF ranges from 1.590 to 4.019, indicating to meet the cut-off value.

Furthermore, R-square (R^2) was intended to determine whether each latent variable had predictive power over the model or not, which has three main categories: 0.75, 0.50, and 0.25 for substantial, moderate, and weak, respectively [58]. Statistical analysis of R^2 in Table 4 concluded that 45.4 % of the BP variables can be influenced by LC, EN, and PI, with the remainder of 54.6 % being affected by other variables outside this study. While 33 % of the PI variables can be influenced by LC and EN. The R^2 value remarks that the structural model is moderate, with a value above 0.33. Therefore, the high R^2 value indicates that this research model is ideal. In addition, Table 5 informs the f^2 level estimation. The results show that the impact of LC on BP is 0.043 (>0.02), showing a small impact. The effect of the LC on PI is 0.099 (>0.02), showing a small impact. Lastly, the impact of PI on BP is 0.075 (>0.02) shows a small impact.

4. Hypothesis estimation

As priorly explained, we involved the bootstrap resampling procedure from Henseler et al. [61]. The results indicated the stability of the PLS-SEM occurred in the model that has processed using 5000 bootstrapped samples. Subsequently, hypothesis testing is performed considering the t -test (>1.96), and the p -value must be lower than the threshold (0.05). When the data processing accomplished the cut-off value, then the research hypothesis is acceptable. The test of the research hypothesis will be presented step by step in accordance with the proposed hypotheses. The study proposes seven hypotheses, which are discussed in Table 6 and Fig. 1.

Table 6 informs that the shows that H1, H2, H3, H4, and H5 were supported by this research. The H1 ($b = 0.180$, $t = 3.510$, $p = 0.000$), H2 ($b = 0.394$, $t = 6.827$, $p = 0.000$), H3 ($b = 0.287$, $t = 4.820$, $p = 0.000$), H4 ($b = 0.386$, $t = 6.391$, $p = 0.000$), and H5 ($b = 0.248$, $t = 4.534$, $p = 0.000$) showed the connection between locus of control, environment, product innovation, and business performance. In addition, the result of mediation estimation showed that product innovation partially mediates the link between locus of control and small-medium business performance ($b = 0.071$, $t = 3.452$, $p = 0.001$), supporting H6. Indeed, product innovation partially mediates the link between environment and small-medium business performance ($b = 0.096$, $t = 3.376$, $p = 0.001$), supporting H7.

5. Discussion

This section comprehensively describes the research results in the form of discussions. The first finding showed that locus of control has an influence on small and medium business (SMEs) performance in religious tourism in Indonesia, meaning that the higher the level of locus of control of the community will promote higher business performance. To increase the performance of SMEs, self-control by the entrepreneur is required. Internal locus of control consists of one category, which is internality—a group of people who agree that something that happen in life that include success or failure are determined by the abilities and efforts that they do independently [27–29]. This study confirms the result of previous studies [43,44] that the internal locus of control influences on entrepreneurial activities and business performance.

Later, empirical estimation indicated that locus of control can promote the performance of SMEs in pilgrimage tourism in Indonesia. The underlying reason is that when people who have this capability feel that they can control outcomes, they should strive harder and more persistently to build and manage new ventures. According to Ajzen [27], individuals with a locus of control are convinced that success and failure enable them to promote innovation. In other words, individuals with a locus of internal control are more likely to take risks. This finding confirms and is aligned with prior studies which have remarked that there is a positive link between locus of control and product innovation. For instance, Xu et al. [45] noted that locus of control can promote innovative behavior among Chinese employees, which further promotes the innovation of the company's product.

Next, environmental factors influence SMEs performance. This implies that the more accustomed to the business environment, many habits and business mindset patterns, as well as the family environment. The findings of this work reinforce some previous research stating that religious tourism is understood as travel activities to places that have exceptional sense for religious people, frequently some places of worship that have benefits [39,40]. Around the tourists found many traders of specialty supplies in the area,

Table 3
Discriminant validity.

	BP	PI	LC	EN
Business Performance (BP)	0.802			
Product Innovation (PI)	0.602	0.777		
Locus of Control (LC)	0.469	0.445	0.877	
Environment (EN)	0.533	0.514	0.459	0.823

Table 4
R² estimation.

	R-Square	Adjusted R-Square
Product Innovation (PI)	0.454	0.449
Business Performance (P)	0.330	0.326

Table 5
f² estimation.

	PI	BP	EN	LC
Product Innovation (PI)		0.075		
Business Performance (BP)				
Environment (EN)	0.179	0.194		
Locus of Control (LC)	0.099	0.043		

Table 6
Hypothesis estimation.

	Relationship	Beta	T-value	P-values	Decision
H ₁	Locus of Control → Business Performance	0.180	3.510	0.000	Accept
H ₃	Environment → Business Performance	0.394	6.827	0.000	Accept
H ₂	Locus of Control → Product Innovation	0.287	4.820	0.000	Accept
H ₄	Environment → Product Innovation	0.386	6.391	0.000	Accept
H ₅	Product Innovation → Business Performance	0.248	4.534	0.000	Accept
H ₆	Locus of Control → Product Innovation → Business Performance	0.071	3.452	0.001	Accept
H ₇	Environment → Product Innovation → Business Performance	0.096	3.378	0.001	Accept

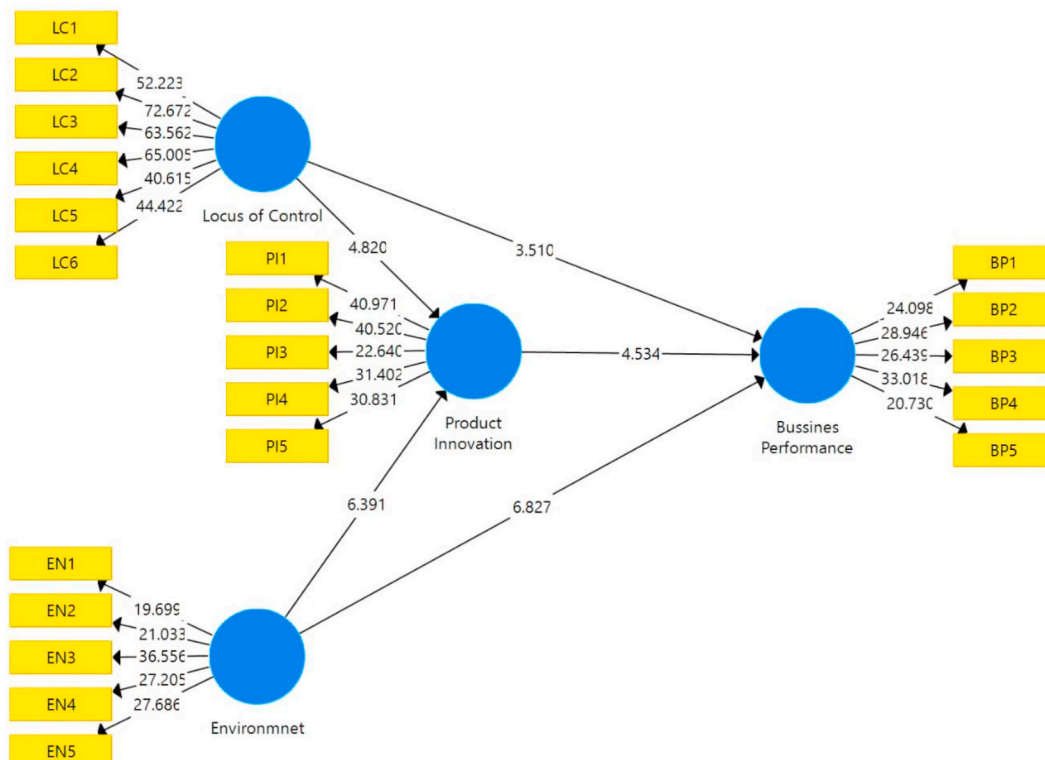


Fig. 1. Structural model.

specialty local food, to worship equipment. When viewed from the historical side, the existence of myths and legends about the place, or the uniqueness and excellence of architectural buildings, make the attractiveness of design in terms of sales; otherwise, this religious tour is much in connection with the intention and goal of the tourist to acquire blessings and wisdom of life.

The business environment also has an impact on product innovation. With the same family environment conditions as entrepreneurs and the neighboring environment of the entrepreneur, adaptation and racing each other to upgrade products are things to be performed. Create new products or enhance the value-added that suitable the needs and desires of consumers so that there is a purchase interest in the product, which is forecasted to be acknowledged through the purchase decision. Product innovation should provide a sustainable competitive advantage in a remarkably shifting environment and in the global market. Successful product innovation requisites compatibility between processes and a supportive environment. Furthermore, the success of innovation must be continuous and not accidental [24–26].

The next finding signifies that product innovation can promote the performance of SMEs. In this regard, continues to expand product innovation, small and medium businesses have a greater ability to compete and survive in favorable situations. This finding supports some prior studies, explaining that product innovation has a positive effect on business performance [21,22]. Similarly, a previous study also noted that innovation can be formed into technological and promotion integration, which further drives small and medium business performance [23]. Therefore, SMEs can comprehend innovation as it is essential to compete and survive with the changes and conditions. For this reason, exploring product innovation provides some benefits for businesses of various scales and types.

In addition to directly affecting business performance, product innovation has been acknowledged as a mediator in connecting locus of control and business performance. The rationale to support this finding is that through continuous innovation concerned with efficiency, product, and marketing, some studies claimed beneficial for most business performance [53]. The findings extend the innovation theory developed by Schumpeter [52], which remarked on the role of product innovation in linking the locus of control and SMEs performance. One of the ways in which product innovation can mediate locus of control is by providing businesses with new opportunities to take control of their goals. Hutahtayan and Yufra [54] remarked that if individuals seem to have a conscious locus of control, their tendency to create such an innovative product is higher. Thus, individuals' awareness of product innovation motivates them to achieve more incredible business performance. The findings confirmed prior research by Rum (2013), which mentioned the enormous role of product innovation.

As with locus of control, it is revealed that product innovation can mediate the connection between environment and SMEs performance. Product innovation is applied to encounter market demand, which means that entrepreneurs must design their products according to consumer wishes so that the resulting product remains attractive to consumers to buy and improve business performance [56]. One of the ways that product innovation mediates the link between the entrepreneurial environment and business performance is by allowing businesses to stay competitive in the market. With the constant changes in the entrepreneurial environment, businesses need to adapt to new market demands and trends [57].

5.1. Theoretical implications

From the theoretical lens, the finding of this study adds to the literature on management, tourism, and economic development within the specific context of SMEs, which provides insights into the unique challenges and opportunities faced by small and medium businesses in pilgrimage tourism. In addition, it contributes to the development of the field of science and theory explanation, especially on the theory of locus of control and the environment as the basic capital for the expansion of the traditional market toward digitalization as well as can develop the enterprise in the era of competitive disruption. Lastly, understanding the influence of locus of control, environment, and performance through product innovation, this study also proposes theoretical insights into how small and medium enterprises can adapt technological matters and strategize through product innovation.

6. Practical implications

In addition to providing theoretical implications, this empirical investigation of the business performance of SMEs raises an increasing demand for product innovation to support their growth. Thus, this research suggests business training programs to enhance business ideation to promote innovativeness. Furthermore, this study provides small and medium enterprises with the opportunity to collaborate with the government, the tourism sector, and industry to differentiate products and innovations continually. Product innovation is prominent in mediating locus of control, environment, and SMEs performance. For this matter, enhancing and integrating innovation in terms of product, marketing, and production will enable businesses in confronting different changes and opportunities. Third, this study also showed the essential locus of control and business environment. Therefore, recognizing locus of control will allow better decisions to take the initiative, seek opportunities, and make necessary changes to improve SMEs performance. Later, small-medium businesses can adapt to the specific characteristics of the pilgrimage tourism environment to enhance their competitiveness and success.

7. Conclusion

This study was intended to examine the influence of locus of control, environment, and business performance among SMEs through product innovation in pilgrimage tourism in Indonesia. The output of this work indicate that locus of control can influence product innovation and performance of SMEs in religious tourism in Indonesia. Similarly, the empirical result shows that the environment can

promote product innovation and business performance. This study also remarks a robust link between product innovation and small-medium enterprises. Moreover, this study confirms the partial mediation role of product innovation in connecting locus of control and business performance, as well as environment and business performance. The study may rely on self-reported data from business owners or managers, introducing the potential for response bias.

8. Limitations

While this study provides sufficient empirical data and analysis on product innovation on the connection between locus of control, environment, and small-medium business performance which have few limitations. First, the findings may be limited in terms of generalizability due to the specific context of pilgrimage tourism in Indonesia, which may not apply to other tourism sectors or industries. Furthermore, a limited number of small-medium businesses in five sites in East Java may restrict the generalizability of the findings.

9. Future direction

Based on the findings, this study provided some direction for future scholars. First, the present study is limited to the locus of control, which could be expanded to covert and overt forms of behavioral control, which can be substantiated by the theory of behavioral control [62,63]. Second, with the reopening of borders and the strengthening/weakening of exchange rates, tourism has boomed, and with the nature of tourism that is often sensationalized on social media today, it will be interesting to encourage future work to examine whether the fear of missing out or FOMO can have an impact on pilgrimage tourism [64]. Lastly, the output of this research can be used as input material and consideration for conducting research linked to locus of control and environmental problems. It can be performed through the reflection of this research on other areas or the development of new variables or dimensions that have not been explored in this present project.

Data availability statement

Data included in article/supp. Material/referenced in article.

CRediT authorship contribution statement

Amelia Setyawati: Writing – review & editing, Supervision, Project administration, Investigation, Formal analysis, Conceptualization. **Rayyan Sugangga:** Visualization, Resources, Project administration, Methodology, Data curation, Conceptualization. **Raya Sulistyowati:** Writing – original draft, Project administration, Formal analysis, Data curation, Conceptualization. **Bagus Shandy Narmaditya:** Writing – review & editing, Visualization, Software, Methodology, Formal analysis. **Farij Ibadil Maula:** Project administration, Methodology, Investigation, Formal analysis. **Nyuherno Aris Wibowo:** Writing – review & editing, Software, Project administration, Methodology, Investigation, Formal analysis. **Yuda Prasetya:** Resources, Project administration, Methodology, Investigation, Formal analysis.

Declaration of competing interest

The authors declare no conflict of interest.

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