Internal Capabilities for Enhancing Marketing Performance in Batik SMEs: The Mediating Role of Product Innovation and the Contributions of Digital Competence and Employee Engagement

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Abstract

This study aims to analyze the influence of digital competence and employee engagement on marketing performance through product innovation in batik MSMEs in the city of Surakarta. The research uses a quantitative approach with an explanatory research design. The research population consisted of 452 batik MSMEs registered with the Surakarta City Cooperatives, Small and Medium Enterprises Office, with a sample of 150 respondents selected using purposive sampling techniques. Data was collected through a questionnaire and analyzed using *Structural Equation Modeling* based *on Partial Least Squares* (SEM-PLS) with the help of SmartPLS 3. The results of the study show that digital competence has a positive and significant effect on product innovation and marketing performance. Employee engagement has a positive and significant effect on product innovation, but it does not have a direct effect on marketing performance. Product innovation has been proven to have a positive and significant effect on marketing performance. Mediation effect testing shows that product innovation does not mediate the influence of digital competence on marketing performance, but mediates the influence of employee engagement on marketing performance. These findings suggest that both internal capabilities have different mechanisms for improving marketing performance. Digital competence has a direct influence on marketing performance, while employee engagement requires product innovation as a connecting mechanism. This research contributes to the development of internal capability studies in MSMEs as well as being the basis for batik MSME actors in formulating strategies to increase competitiveness through strengthening digital competence, human resource involvement, and product innovation.

Keywords: Digital Competence, Employee Engagement, Product Innovation, Marketing Performance, Batik MSMEs.

1. Introduction

Maintaining cultural values while winning market competition is an increasingly complex challenge for the Indonesian batik industry in the era of digital transformation. As a cultural heritage that has been recognized by UNESCO as *an Intangible Cultural Heritage of Humanity* since 2009, batik not only represents the nation's identity, but also develops into one of the main drivers of the national creative industry that is able to create jobs, increase people's income, and strengthen the competitiveness of the culture-based economy. The development of digital technology, changes in consumer behavior, and increasing intensity of competition have changed the way the batik industry creates value for the market. Consumers no longer only consider the quality of the motive and cultural value of a product, but also pay attention to innovation, ease of access to information, shopping experience, and the ability of business actors to build communication through various digital platforms. This condition shows that the sustainability of the batik industry

is no longer enough to rely on the strength of tradition, but also depends on the ability of business actors to integrate cultural values with innovation and digital transformation as a source of competitive advantage (UNESCO, 2009; Ministry of Tourism and Creative Economy, 2024).

This transformation is reflected in the development of the batik industry in the city of Surakarta which has been known as one of the national batik centers through the existence of the Laweyan Batik Village and the Kauman Batik Village. The two regions are not only the center of batik production, but also develop as a creative economy ecosystem that connects production activities, trade, tourism, and cultural preservation. Based on data from the Surakarta City Cooperatives, Small and Medium Enterprises Office, there are 452 batik MSMEs spread across five sub-districts, with the largest concentration in Laweyan District with 191 business units and Pasar Kliwon District with 128 business units. In addition, as many as 99 batik MSMEs were recorded as micro and small business actors actively fostered by local governments in certain data collection periods. The large number of business actors shows that the batik industry is still one of the main drivers of the local economy. However, on the other hand, these conditions also show the increasing level of competition between business actors, so that the ability to create product differentiation, expand the market, and maintain customer loyalty is a factor that increasingly determines the success of the business. In other words, the growth in the number of batik MSMEs needs to be balanced by an increase in the quality of competitiveness in order to be able to maintain the sustainability of their business in the midst of changing market dynamics (Surakarta City Cooperatives, Small and Medium Enterprises Office, 2024).

The change in the business landscape is further accelerated by the development of digital technology that changes the pattern of interaction between producers and consumers. Various digital platforms have opened up opportunities for batik MSMEs to reach a wider market, strengthen promotions, and build closer relationships with customers without being limited by space and time. However, the ease of access to technology has not fully resulted in an increase in the competitiveness and marketing performance of MSMEs. The results of the Study on the Digitalization of Small and Medium Industries (SMEs) and MSMEs in Surakarta City show that some business actors still face various obstacles, including low digital literacy, limited ability to utilize technology to support marketing activities, not optimal development of digital-based business strategies, and low ability to create innovations in accordance with changing market needs. This phenomenon shows that digital transformation has not automatically resulted in a competitive advantage. Technology only provides opportunities, while the ability to turn those opportunities into economic value is largely determined by the quality of human resources and the organization's ability to create innovations that are of value to consumers. This phenomenon is the starting point of this research to understand the factors that are able to improve the marketing performance of batik MSMEs in the city of Surakarta through strengthening the internal capabilities of the organization (BRIDA Kota Surakarta, 2023).

Digital transformation is ultimately not solely a matter of technology adoption, but an organizational change process that is highly dependent on the quality of human resources. Technology only provides infrastructure, whereas the ability to turn technology into business excellence is determined by the competence of the individual who manages the business. In the context of batik MSMEs, business actors are required not only to be able to use digital media as a means of promotion, but also to have digital competence to obtain market information, understand consumer behavior, manage marketing communications, and make data-based business decisions. These capabilities allow businesses to respond to changes in the business environment more adaptively while

building more effective marketing strategies. However, various studies show that digital capabilities do not automatically improve business performance if they are not supported by the organization's readiness to utilize these competencies into activities that create value for customers (Herhausen et al., 2020; Gonzalez-Varona et al., 2024).

The success of digital transformation is also influenced by the involvement of human resources in carrying out the change process. Most batik MSMEs in Surakarta City are still dominated by family businesses and small-scale businesses that rely on batik skills for generations. In these conditions, the success of the business is not only determined by the owner's ability to manage the business, but also by the involvement of all individuals involved in the production and marketing process. Employee engagement is an important factor because it encourages the emergence of commitment, creativity, a sense of belonging, and a willingness to adapt to change. Individuals who have a high level of engagement tend to be more proactive in developing new ideas, improving service quality, and supporting the innovation process needed by the organization to maintain competitiveness. Therefore, strengthening digital competencies and employee engagement are two internal capabilities that complement each other in facing the dynamics of the increasingly competitive batik industry (Schaufeli et al., 2002; Saks, 2006; Bakker & Albrecht, 2018).

However, digital competence and employee engagement do not necessarily directly result in better marketing performance. In a creative industry such as batik, the internal capabilities of the new organization will have an impact if it can be translated into product innovations that have value for consumers. Innovation in the batik industry is not only realized through the creation of new motifs, but also through design development, product diversification, color combinations, quality improvement, and the creation of derivative products that are in accordance with changes in market preferences. Thus, product innovation acts as a strategic mechanism that connects the organization's internal capabilities with the success of creating a competitive advantage in the market. A number of studies show that product innovation is able to increase competitiveness while strengthening the marketing performance of MSMEs, but the effectiveness of innovation is highly dependent on the organization's ability to utilize human resource competencies and digital technology in an integrated manner (Aksoy, 2017; Homburg & Wielgos, 2022; Wicaksono, 2026).

The phenomenon of batik MSMEs in Surakarta City shows that the increase in the use of digital technology has not always been followed by increased product innovation and marketing performance. Some business actors have used social media and marketplaces to expand market reach, but have not been able to optimize digital information as the basis for product development that suits consumer needs. On the other hand, the involvement of human resources in encouraging organizational learning and innovation also still faces various challenges. This condition indicates that marketing success is not only determined by digital capabilities or individual involvement separately, but by the ability to integrate these two capabilities into product innovations that provide added value for customers. Departing from this phenomenon, this study aims to analyze the influence of business actors' digital competencies and employee engagement on marketing performance through product innovation in Batik MSMEs in the city of Surakarta. This research is expected to enrich the study of the integration of Human Resource Management and Marketing perspectives in explaining the improvement of culture-based MSME marketing performance, as well as providing practical recommendations for business actors and local governments in formulating batik MSME development strategies that are oriented towards digital transformation, strengthening human resources, and product innovation in a sustainable manner.

2. Hypothesis Development

2.1. Digital Competence for Product Innovation

Changes in consumer behavior and the development of digital technology encourage batik MSMEs to be more adaptive in developing products that suit market needs. In these conditions, digital competence is no longer limited to the ability to use technology, but becomes a strategic capability that allows business actors to obtain market information, understand consumer preferences, and utilize digital technology as the basis for product development. The higher the digital competence possessed by business actors, the greater the opportunity for MSMEs to produce innovations that are able to increase their competitiveness (Herhausen et al., 2020; Gonzalez-Varona et al., 2024).

The findings of various studies show that digital competence plays an important role in improving the ability of organizations to create innovation through the use of digital information and technology (Sharabati et al., 2024; Gonzalez-Varona et al., 2024). In the context of batik MSMEs, the ability to read market trends, identify customer needs, and integrate digital information into the product development process is believed to be an important factor in creating valuable innovations for consumers. Thus, digital competence is seen as an internal capability that is able to encourage the increase of product innovation in batik MSMEs. Based on these arguments, this study proposes the following hypothesis.

H1. Digital Competence has a Positive Effect on Product Innovation.

2.2. Employee Engagement Towards Product Innovation

The ability of batik MSMEs to produce product innovation is not only determined by the use of digital technology, but also by the involvement of human resources in the business development process. Most batik MSMEs in Surakarta City are still managed on a family or small business scale that relies on collaboration between individuals in production and marketing activities. This condition places employee engagement as one of the important internal capabilities because it reflects the level of commitment, enthusiasm, and involvement of individuals in achieving organizational goals. Individuals who have a high level of engagement tend to be more open to change, actively provide ideas, and participate in the development of products that are more creative and in accordance with market needs (Schaufeli et al., 2002; Bakker & Albrecht, 2018).

Various studies show that employee engagement contributes to increasing creativity, innovative behavior, and organizational ability to produce sustainable innovations (Saks, 2006; Bakker & Albrecht, 2018). In the context of batik MSMEs, the active involvement of owners and workers is believed to be able to encourage the emergence of creative ideas in the development of motifs, designs, color combinations, and product diversification that are more in line with the dynamics of consumer preferences. Thus, the higher the employee engagement owned by human resources in batik MSMEs, the greater the opportunity for product innovation that can increase business competitiveness. Based on these arguments, this study proposes the following hypothesis.

H2. Employee Engagement has a positive effect on Product Innovation.

2.3. Digital Competence to Marketing Performance

The development of digital technology has changed the marketing strategy of MSMEs from a conventional approach to data-driven marketing and digital platforms. In the batik industry, digital competence is a capability that allows business actors to utilize social media, marketplaces, and various digital technologies to expand market reach, understand consumer behavior, and build more effective marketing communication. This ability

provides opportunities for batik MSMEs to increase product visibility, expand customer networks, and strengthen competitiveness in an increasingly competitive market (Herhausen et al., 2020; Homburg & Wielgos, 2022).

Various studies show that digital competencies contribute to improving marketing performance through the ability of organizations to utilize technology as a source of competitive advantage (Sharabati et al., 2024; Gonzalez-Varona et al., 2024). In batik MSMEs, the ability to use digital information appropriately is believed to be able to increase the effectiveness of promotions, expand market access, and strengthen relationships with customers so that it has an impact on improving marketing performance. Thus, digital competence is seen as one of the internal capabilities that can increase the marketing success of batik MSMEs. Based on these arguments, this study proposes the following hypothesis.

H3. Digital Competence has a positive effect on Marketing Performance.

2.4. Employee Engagement on Marketing Performance

The success of batik MSME marketing is not only determined by product quality, but also by the involvement of human resources in providing services, building relationships with customers, and supporting marketing activities. In batik MSMEs, most of which are still managed directly by owners and workers on a small scale, employee engagement is a factor that encourages the emergence of commitment, responsibility, and orientation to customer satisfaction. The high involvement of individuals in business processes allows organizations to respond to market needs more quickly while creating a better customer experience (Schaufeli et al., 2002; Bakker & Albrecht, 2018).

Previous research findings show that employee engagement contributes to increasing productivity, service quality, and organizational performance (Saks, 2006; Bakker & Albrecht, 2018). In the context of batik MSMEs, the active involvement of owners and workers is believed to be able to improve the quality of interaction with customers, strengthen consumer loyalty, and support the effectiveness of marketing activities. Therefore, employee engagement is seen as an internal capability that contributes to improving the marketing performance of batik MSMEs. Based on these arguments, this study proposes the following hypothesis.

H4. Employee Engagement has a positive effect on Marketing Performance.

2.5. Product Innovation Towards Marketing Performance

In the batik industry, product innovation is one of the main strategies to maintain competitiveness in the midst of changing consumer preferences and increasing market competition. Innovation is not only realized through the creation of new motifs, but also through the development of designs, color combinations, product diversification, and quality improvement that are able to provide added value for customers. The ability to produce innovative products allows batik MSMEs to build differentiation so that it is easier to attract consumer interest and expand market share (Aksoy, 2017; Homburg & Wielgos, 2022).

Various studies prove that product innovation is one of the important determinants in improving the marketing performance of MSMEs (Aksoy, 2017; Wicaksono, 2026). In batik MSMEs, product innovation is believed to be able to increase product attractiveness, strengthen competitive advantages, and create value in accordance with consumer needs so that it has an impact on improving marketing performance. Thus, product innovation becomes a strategic mechanism that connects the organization's internal capabilities with marketing success. Based on these arguments, this study proposes the following hypothesis.

H5. Product Innovation has a positive effect on Marketing Performance.

2.6. The Role of Product Innovation Mediation on the Relationship of Digital Competency to Marketing Performance

Although digital competence allows batik MSMEs to utilize technology to obtain market information, understand consumer behavior, and expand marketing reach, these capabilities do not necessarily directly improve marketing performance. Digital information will only provide economic value if it can be translated into more innovative products and in accordance with market needs. In other words, digital competence is a capability that creates opportunities, while product innovation is a mechanism that turns these opportunities into competitive advantages through value creation for consumers (Herhausen et al., 2020; Homburg & Wielgos, 2022).

A number of studies show that digital competencies contribute to increasing organizational innovation, while product innovation is an important determinant in improving the marketing performance of MSMEs (Gonzalez-Varona et al., 2024; Aksoy, 2017). In the context of batik MSMEs in the city of Surakarta, the ability to utilize digital technology will have a greater impact on marketing performance if it is manifested in the form of developing motifs, designs, product variations, and improving quality in accordance with consumer preferences. Thus, product innovation is seen as a mechanism that translates digital competence into improving the marketing performance of batik MSMEs. Based on these arguments, this study proposes the following hypothesis.

H6. Product Innovation mediates the influence of Digital Competence on the Marketing Performance of Batik MSMEs.

2.7. The Role of Product Innovation Mediation in the Relationship of Employee Engagement to Marketing Performance

Employee engagement encourages the emergence of commitment, creativity, and active participation of human resources in carrying out organizational activities. However, high engagement does not automatically improve marketing performance if it does not produce added value that can be felt by consumers. In batik MSMEs, the involvement of owners and workers needs to be realized in the form of creative ideas, design development, and product improvement in order to increase attractiveness and competitiveness in the market. Therefore, product innovation is a link that explains how employee engagement can contribute to improving marketing performance (Schaufeli et al., 2002; Bakker & Albrecht, 2018).

Previous research findings show that employee engagement plays a role in encouraging innovative behavior, while product innovation contributes to improving marketing performance through value creation that is more in line with customer needs (Saks, 2006; Wicaksono, 2026). In the context of batik MSMEs, the active involvement of all individuals in the business development process is believed to be able to produce product innovations that are more adaptive to changes in consumer preferences so as to have an impact on improving marketing performance. Thus, product innovation is a mechanism that connects employee engagement with the success of batik MSME marketing. Based on these arguments, this study proposes the following hypothesis.

H7. Product Innovation mediates the influence of Employee Engagement on the Marketing Performance of Batik MSMEs.

3. Research Conceptual Model

Based on the development of the hypothesis that has been described, this study develops a conceptual model that describes the relationship between internal capabilities and

marketing performance in batik MSMEs. Digital competence and employee engagement are positioned as two strategic capabilities that affect marketing performance, either directly or indirectly through product innovation as a mediating variable. This model emphasizes that the marketing excellence of batik MSMEs is not only determined by the organization's ability to utilize digital technology and build human resource involvement, but also by its ability to transform these two capabilities into product innovations that are able to create added value for consumers. The conceptual model of the research presented in Figure 1 is the basis for testing the direct and indirect relationships between variables using the Structural Equation Modeling approach based on Partial Least Squares (SEM-PLS).

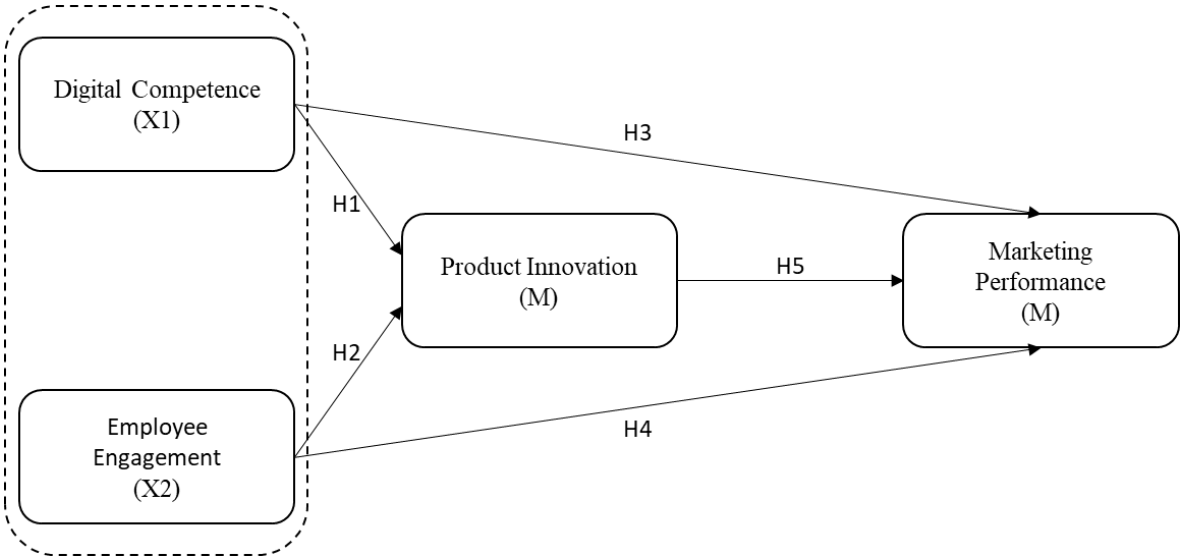


Figure 1. Research Model
Source: Developed in this study (2026)

4. Research Methods

This study uses a quantitative approach with an explanatory research design to analyze the causal relationship between variables in the research model. The object of the research is batik MSMEs in the city of Surakarta with a population of 452 business units, based on data from the Cooperatives, Small and Medium Enterprises Office of Surakarta City. The study used a purposive sampling technique with the criteria of respondents, namely: (1) the owner or manager of batik MSMEs, (2) they have been running a business for at least two years, and (3) they have utilized digital media, such as social media or marketplaces, in marketing activities. The determination of the number of samples refers to the recommendation of Hair et al. (2022) who stated that research using Structural Equation Modeling based on Partial Least Squares (SEM-PLS) requires an adequate sample size according to the complexity of the research model. Based on these considerations, this study used 150 respondents, who were considered to have met an adequate sample size to produce stable parameter estimates.

The research data was collected using a structured questionnaire that was distributed directly to the respondents. All statement items were measured using a five-point Likert scale, ranging from 1 = strongly disagree to 5 = strongly agree. The variables measured included digital competence, employee engagement, product innovation, and marketing performance. The measurement indicators of each variable were adapted from previous research that had met the criteria of validity and reliability, then adjusted to the context of

research on Batik MSMEs in the city of Surakarta. The operationalization of the research variables is presented in Table 1.

Table 1. Operationalization of Research Variables

Konstruk	Number of Indicators	Adaptation Source
Digital competence	5	Herhausen et al. (2020); Gonzalez-Varona et al. (2024)
Employee engagement	5	Schaufeli et al. (2002); Bakker & Albrecht (2018)
Product innovation	5	Aksoy (2017)
Marketing performance	5	Homburg & Wielgos (2022)

Data analysis was carried out using SmartPLS 3 with a Structural Equation Modeling approach based on Partial Least Squares (SEM-PLS). The evaluation of the measurement model (outer model) is carried out through testing convergent validity, discriminant validity, and construct reliability. Furthermore, the evaluation of the structural model (inner model) was carried out using the value of the determination coefficient (R^2), effect size (f^2), predictive relevance (Q^2), and hypothesis testing through a bootstrapping procedure to test direct and indirect influences through mediation variables.

5. Research Results

5.1. Evaluation of Measurement Models (Outer Model)

Before testing the relationship between constructs, the measurement model (outer model) is evaluated to ensure that each construct meets the criteria of validity and reliability. Evaluation was carried out based on the value of outer loading, Cronbach's Alpha, Composite Reliability, and Average Variance Extracted (AVE). A summary of the results of the evaluation of the measurement model is presented in Table 2.

Table 2. Evaluation of Construct Validity and Reliability

Konstruk	Cronbach's Alpha	Composite Reliability	AVE
Digital competence	0,879	0,912	0,675
Employee engagement	0,824	0,883	0,655
Product innovation	0,826	0,878	0,590
Marketing performance	0,865	0,903	0,651

The results of the evaluation of the measurement model showed that indicators that did not meet *the minimum outer loading* value had been eliminated so that all indicators in the final model had an *outer loading* value above 0.70 and met the convergence validity criteria. In addition, as presented in Table 2, all constructs have Cronbach's Alpha and Composite Reliability values above 0.70 and Average Variance Extracted (AVE) values above 0.50. These results show that the research instrument has met the criteria for validity and reliability so that it is suitable for use at the structural model evaluation stage.

5.2. Evaluation of Structural Models (Inner Model)

After the measurement model meets the criteria of validity and reliability, the next stage is to evaluate the structural model (*inner model*). The evaluation was carried out using the determination coefficient (R^2) and predictive relevance (Q^2) to determine the model's

ability to explain and predict endogenous constructs. The results of the structural model evaluation are presented in Table 3.

Table 3. Structural Model Evaluation Results (R^2 and Q^2)

Konstruk	R^2	Q^2
Product innovation	0,675	0,364
Marketing performance	0,777	0,450

Source: SmartPLS3, 2026

Based on Table 3, the R^2 value of product innovation of 0.675 indicates that digital competence and employee engagement are able to explain 67.5% of the variation in product innovation. Meanwhile, the R^2 value of marketing performance of 0.777 shows that digital competence, employee engagement, and product innovation are able to explain 77.7% of the variation in marketing performance. In addition, the product innovation Q^2 value of 0.364 and marketing performance of 0.450 indicate that the model has great predictive relevance. Thus, structural models have a good ability to explain and predict the relationship between research variables.

5.3. Hypothesis Testing

After the measurement model and structural model are declared to meet the required criteria, the next stage is to test the research hypothesis through path coefficients analysis using the bootstrapping procedure. The test was carried out to determine the direction, magnitude, and significance of the direct influence between constructs based on the value of the path coefficient (β), t-statistics, and p-values. The results of the hypothesis testing are presented in Table 4.

Table 4. Hypothesis Testing Results

Hypothesis	Relationships Between Constructs	β	t-statistics	p-values	Verdict
H1	Digital competence → product innovation	0,414	3,586	0,000	Accepted
H2	Employee engagement → product innovation	0,445	3,955	0,000	Accepted
H3	Digital competencies → marketing performance	0,374	4,462	0,000	Accepted
H4	Employee engagement → marketing performance	0,165	1,439	0,151	Rejected
H5	Product innovation → marketing performance	0,200	2,313	0,021	Accepted

Based on Table 4, the results of the hypothesis test show some important findings as follows.

1. Digital competence has a positive and significant effect on product innovation ($\beta = 0.414$; $t = 3.586$; $p < 0.001$), so H1 is accepted. These results show that the higher the digital competence possessed by batik MSME actors, the higher their ability to produce product innovations.
2. Employee engagement had a positive and significant effect on product innovation ($\beta = 0.445$; $t = 3.955$; $p < 0.001$), so H2 was accepted. These findings indicate that the active

involvement of human resources is able to encourage the creation of product innovations in batik MSMEs.

3. Digital competence has a positive and significant effect on marketing performance ($\beta = 0.374$; $t = 4.462$; $p < 0.001$), so H3 is accepted. This shows that increasing digital competence contributes directly to improving the marketing performance of batik MSMEs.
4. Employee engagement had no significant effect on marketing performance ($\beta = 0.165$; $t = 1.439$; $p = 0.151$), so H4 was rejected. These findings suggest that employee engagement has not been able to improve marketing performance directly.
5. Product innovation has a positive and significant effect on marketing performance ($\beta = 0.200$; $t = 2.313$; $p = 0.021$), so H5 is accepted. Thus, the increase in product innovation is able to encourage an increase in the marketing performance of batik MSMEs in the city of Surakarta.

5.4. Mediation Effect Testing

In addition to examining the direct influence between variables, this study also examines the mediating role of product innovation in the relationship between digital competence and employee engagement on marketing performance. Mediation effect testing was carried out using specific indirect effects analysis through a bootstrapping procedure. The results of the mediation effect testing are presented in Table 5.

Table 5. Mediation Effect Test Results

Hypothesis	Mediation Relationship	β	t-statistics	p-values	Verdict
H6	Digital competencies → product innovation → marketing performance	0,083	1,792	0,074	Rejected
H7	Employee engagement → product innovation → marketing performance	0,089	2,111	0,035	Accepted

Based on Table 5, the results of the mediation effect test show the following findings.

1. Product innovation did not mediate the influence of digital competency on marketing performance ($\beta = 0.083$; $t = 1.792$; $p = 0.074$), so H6 was rejected. These findings show that digital competence has a stronger influence directly on marketing performance than through the product innovation mechanism.
2. Product innovation mediated the influence of employee engagement on marketing performance ($\beta = 0.089$; $t = 2.111$; $p = 0.035$), so H7 was accepted. These findings show that the contribution of employee engagement to marketing performance occurs through increasing product innovation as a mechanism that creates added value for batik MSMEs.

6. Discussion

6.1. Digital Competence to Product Innovation

The results of the study showed that digital competence had a positive and significant effect on product innovation in batik MSMEs in Surakarta City ($\beta = 0.414$; $t = 3.586$; $p < 0.001$), so that H1 was accepted. These findings indicate that the higher the digital competence possessed by batik MSME actors, the greater their ability to create product innovations. Digital competence is no longer only interpreted as the ability to use technological tools, but also includes the ability to obtain market information, utilize

digital media, understand consumer trends, and integrate technology into the product development process. In the context of batik MSMEs, the use of social media, marketplaces, and various digital platforms allows business actors to obtain information about consumer preferences faster so that they can produce motifs, designs, packaging, and product variations that are more in line with market needs.

The findings of this study can be explained through the perspective of the Resource-Based View (RBV) which states that internal resources that are valuable, scarce, difficult to imitate, and not easily replaceable are the basis for the formation of competitive advantage (Barney, 1991). In the context of this research, digital competence is an internal capability that allows batik MSME actors to access market information, understand consumer trends, and develop product designs and variations more quickly. The results of this study are consistent with the findings of Herhausen et al. (2020) who stated that digital capabilities increase companies' ability to produce innovations that are oriented to customer needs. Similarly, Gonzalez-Varona et al. (2024) found that digital transformation encourages organizations to be more adaptive in developing product innovations. However, these studies are generally conducted on manufacturing companies and MSMEs in general. This study expands on previous findings by providing empirical evidence on batik MSMEs as a culture-based creative industry, where digital competence not only supports the efficiency of business processes, but also becomes a means of obtaining design inspiration, following fashion trends, and accelerating the creation of batik motifs that suit consumer preferences. Therefore, digital competence can be seen as a strategic capability that strengthens the innovation ability of batik MSMEs in the city of Surakarta.

6.2. Employee Engagement to Product Innovation

The results of the study showed that employee engagement had a positive and significant effect on product innovation in batik MSMEs in Surakarta City ($\beta = 0.445$; $t = 3.955$; $p < 0.001$), so that H2 was accepted. These findings indicate that the higher the level of involvement of owners and workers in business activities, the greater the ability of batik MSMEs to produce product innovations. In the batik industry dominated by micro and small businesses, the innovation process is not only determined by technology, but also by the involvement of individuals in generating ideas, experimenting with new designs, improving product quality, and responding to changes in consumer preferences. The high involvement of human resources creates a more collaborative work environment so as to encourage the birth of creativity which is then manifested in the form of product innovation.

The findings are in line with Social Exchange Theory, which explains that individuals who have an emotional attachment and high commitment to the organization will make contributions that exceed the demands of their job, including in creating innovation. The results of this study are consistent with the findings of Schaufeli et al. (2002) and Bakker and Albrecht (2018) who stated that *employee engagement* increases creativity, innovative behavior, and organizational ability to generate sustainable innovation. In addition, Saks (2006) also emphasized that employee involvement encourages the emergence of proactive work behaviors that support organizational development. Nevertheless, most of the research was conducted on large corporations or formal organizations. This research expands on empirical evidence on batik MSMEs, where the involvement of owners and workers has a more flexible and direct role in the process of creating designs, motifs, and product diversification. Thus, *employee engagement* is one of the internal capabilities that contributes to increasing product innovation in batik MSMEs in the city of Surakarta.

6.3. Digital Competence to Marketing Performance

The results of the study showed that digital competence had a positive and significant effect on marketing performance in batik MSMEs in Surakarta City ($\beta = 0.374$; $t = 4.462$; $p < 0.001$), so that H3 was accepted. These findings show that the ability of MSME actors to utilize digital technology contributes directly to improving marketing performance. The use of social media, *marketplaces*, digital payment services, and communication based on digital platforms allows batik MSMEs to expand market reach, increase the intensity of interaction with customers, and accelerate the dissemination of information about products. This condition makes digital competence a factor that can increase the effectiveness of marketing activities without having to rely entirely on product innovation.

These findings can be explained through the perspective of Dynamic Capability Theory, which emphasizes that an organization's ability to integrate and utilize digital resources is an important factor in maintaining a competitive advantage in a dynamic business environment. The results of this study support the findings of Herhausen et al. (2020) who stated that digital capabilities increase marketing effectiveness through technology integration and customer orientation. In addition, Homburg and Wielgos (2022) show that digital transformation allows companies to build better customer relationships while improving marketing performance. This study expands the findings in the context of batik MSMEs in the city of Surakarta, where digital competence is proven to have a direct impact on marketing performance through the optimization of digital marketing channels. Therefore, digital competence can be seen as a strategic capability that directly increases the competitiveness of batik MSME marketing.

6.4. Employee Engagement on Marketing Performance

The results of the study showed that employee engagement did not have a significant effect on marketing performance in batik MSMEs in Surakarta City ($\beta = 0.165$; $t = 1.439$; $p = 0.151$), so H4 was rejected. These findings indicate that high human resource involvement has not been able to improve marketing performance directly. This condition can be explained by the characteristics of batik MSMEs, most of which are still micro and family-scale, where marketing activities are more determined by the decision of business owners than by the level of labor involvement. Thus, while *employee engagement* is able to create a positive work environment, its effect on marketing performance does not occur directly.

The results of this study provide a different perspective than some previous studies that found that *employee engagement* contributes to improving organizational performance. Bakker and Albrecht (2018) and Saks (2006) explain that employee involvement increases productivity and service quality which ultimately impacts organizational performance. However, in the context of batik MSMEs, marketing activities are more influenced by the owner's ability to make strategic decisions, utilize digital technology, and build a market network. Therefore, labor involvement has not automatically improved marketing performance if it is not realized in activities that generate added value for consumers. These findings show that the relationship between *employee engagement* and marketing performance in batik MSMEs is indirect, but requires other mechanisms that are able to transform human resource involvement into competitive advantage.

6.5. Product Innovation on Marketing Performance

The results of the study showed that product innovation had a positive and significant effect on marketing performance in batik MSMEs in Surakarta City ($\beta = 0.200$; $t = 2.313$; $p = 0.021$), so that H5 was accepted. These findings show that the ability of batik MSMEs to produce new motifs, improve designs, improve quality, and diversify products is able to increase the attractiveness of products in the market. Product innovation allows batik

MSMEs to provide added value in accordance with changing consumer preferences, thus having an impact on increasing sales, expanding market share, and strengthening competitiveness.

These findings support the Resource-Based View (RBV) which explains that innovation is one of the sources of competitive advantage that is difficult for competitors to replicate. The results of this study are consistent with the research of Aksoy (2017) which states that product innovation is an important determinant in improving marketing performance. In addition, Homburg and Wielgos' (2022) research shows that companies that are able to generate innovation in a sustainable manner tend to have better marketing performance. This research strengthens these findings in the context of batik MSMEs, where product innovation not only functions as a differentiation strategy, but also as a means of maintaining competitiveness in the culture-based creative industry. Thus, product innovation is a strategic mechanism that allows batik MSMEs to create added value for consumers while improving marketing performance.

6.6. The Role of Product Innovation Mediation on the Relationship of Digital Competency to Marketing Performance

The results of the study showed that product innovation did not mediate the influence of digital competence on marketing performance in batik MSMEs in Surakarta City (β = 0.083; t = 1.792; p = 0.074), so H6 was rejected. These findings show that digital competence plays a greater role in improving marketing performance directly than through product innovation mechanisms. This condition indicates that batik MSME actors who have digital competence are able to utilize various digital platforms, such as social media, *marketplaces*, and business communication applications to expand market reach, increase interaction with customers, and accelerate the promotion process without having to first produce product innovations. In other words, the improvement of marketing performance is more influenced by the ability to utilize digital technology as a means of marketing than through changes in the characteristics of the resulting product.

These findings can be explained through Dynamic Capability Theory, which emphasizes that an organization's ability to integrate technology and respond to changes in the business environment can result in a direct competitive advantage. The results of this study are in line with Herhausen et al. (2020) who stated that digital capabilities are able to increase the effectiveness of marketing activities through optimizing the use of digital technology and interaction with customers. In addition, Homburg and Wielgos (2022) also explain that digital transformation allows companies to improve marketing performance through strengthening digital communication channels and customer relationship management. However, this study provides a different perspective because it shows that in batik MSMEs, product innovation has not yet become a mechanism that bridges the influence of digital competencies on marketing performance. These findings indicate that the benefits of digital competence are realized faster in the form of increased marketing activities than in the process of creating product innovations. Therefore, digital competence can be seen as a strategic capability that directly strengthens the marketing performance of batik MSMEs without having to go through a product innovation mediation mechanism.

6.7. The Role of Product Innovation Mediation on the Relationship of Employee Engagement to Marketing Performance

The results of the study showed that product innovation mediated the influence of employee engagement on marketing performance in batik MSMEs in Surakarta City (β = 0.089; t = 2.111; p = 0.035), so that H7 was accepted. These findings show that human

resource involvement has not been able to improve marketing performance directly, but is able to contribute when it is realized in the form of product innovation. In batik MSMEs, the involvement of owners and workers encourages the emergence of creative ideas, the development of new motifs, improving product quality, and diversifying designs in accordance with market needs. These innovations then become an added value that increases the attractiveness of the product so that it has an impact on improving marketing performance. Thus, product innovation plays a role as a mechanism that transforms human resource involvement into marketing excellence.

These findings are in line with Social Exchange Theory, which explains that individuals who have a high level of engagement tend to contribute more to the achievement of organizational goals through innovative behaviors. The results of this study support the findings of Schaufeli et al. (2002) and Bakker and Albrecht (2018) who stated that *employee engagement* encourages creativity and innovation in organizations. In addition, Aksoy (2017) research shows that product innovation is a factor that is able to improve marketing performance through the creation of added value for customers. This study expands on these findings by showing that in batik MSMEs, the relationship between *employee engagement* and marketing performance is indirect, but through product innovation as a mediation mechanism. These findings make an empirical contribution that human resource engagement does not automatically increase marketing success, but must first translate into innovations that are able to meet consumer needs and preferences. Therefore, product innovation is a strategic link that transforms internal capabilities in the form of *employee engagement* into improving marketing performance for batik MSMEs in the city of Surakarta.

7. Conclusions and Suggestions

7.1. Research Conclusions

This study aims to analyze the role of digital competence and employee engagement as internal capabilities in improving the marketing performance of batik MSMEs in Surakarta City through product innovation as a mediation variable. The results of the study show that digital competence has a positive and significant effect on product innovation and marketing performance, while employee engagement has a positive and significant effect on product innovation, but does not have a direct effect on marketing performance. In addition, product innovation has been proven to have a positive effect on marketing performance.

Mediation effect testing showed that product innovation did not mediate the influence of digital competence on marketing performance, but succeeded in mediating the influence of employee engagement on marketing performance. The findings show that the two internal capabilities have different mechanisms for improving marketing performance. digital competence contributes directly through the use of digital technology to expand the market, increase the effectiveness of promotions, and strengthen interactions with customers. On the other hand, employee engagement only has an impact on marketing performance if the involvement of human resources can be realized in the form of product innovation that provides added value for consumers.

These findings emphasize that the success of batik MSME marketing in the digital era is not only determined by the mastery of technology and the involvement of human resources separately, but by the ability to manage these two capabilities into a sustainable competitive advantage.

7.2. Research Suggestions

Based on the results of the research, there are several suggestions that can be considered as follows.

1) For batik MSME actors, digital competency improvement needs to be carried out in a sustainable manner through digital marketing training, the use of marketplaces, social media, and other digital technologies to expand market reach and increase the effectiveness of marketing activities. In addition, the involvement of human resources should be directed to activities that encourage the birth of product innovation, such as the development of design, motifs, quality, and product diversification in order to increase business competitiveness.
2) For local governments and MSME coaching agencies, the results of this research can be used as a basis for designing a mentoring program that not only focuses on the digitalization of MSMEs, but also on developing innovation capacity through improving human resource competencies, so that digital transformation and product innovation can run synergistically.
3) For the next researcher, this study still has limitations because it only involves batik MSMEs in the city of Surakarta with a quantitative approach. The next research is suggested to expand the research object in other creative industry sectors or different regions, as well as add variables such as market orientation, innovation ability, digital marketing capability, customer relationship management, or competitive advantage in order to obtain a more comprehensive model in explaining the factors that affect the marketing performance of MSMEs.

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