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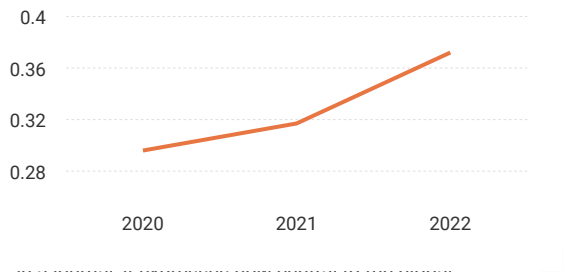

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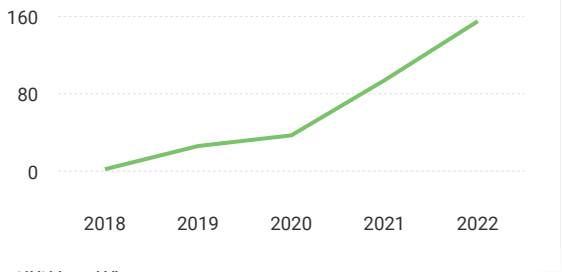

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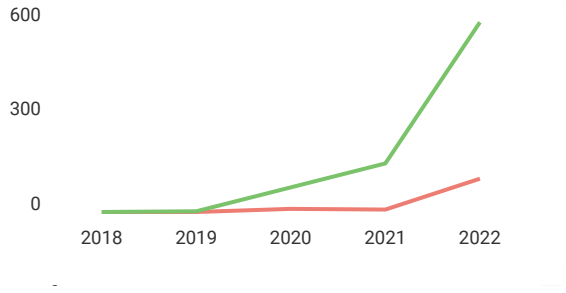

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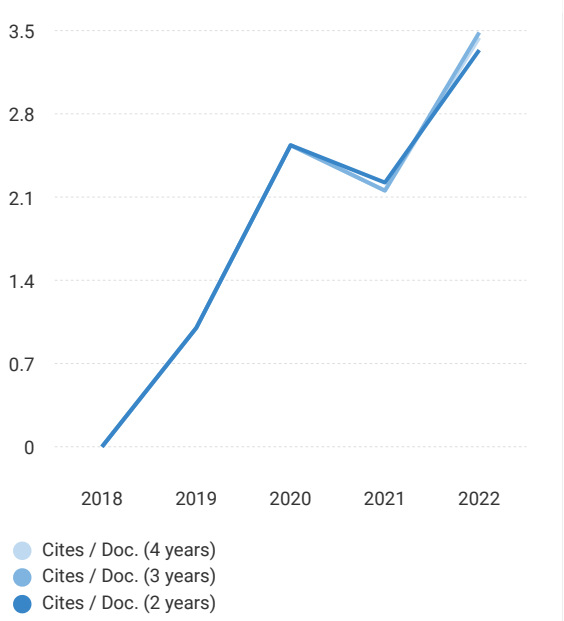

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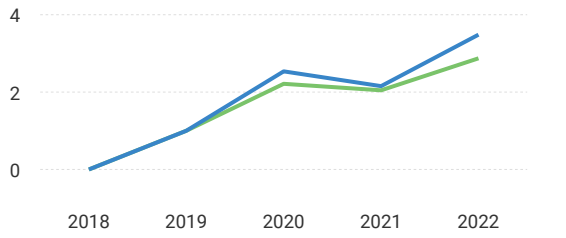

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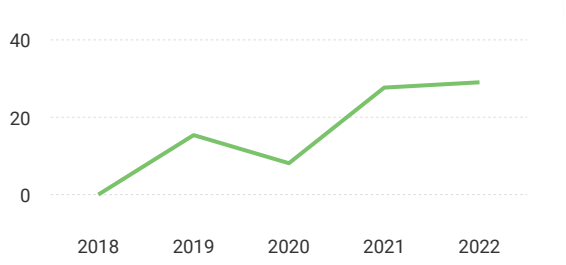

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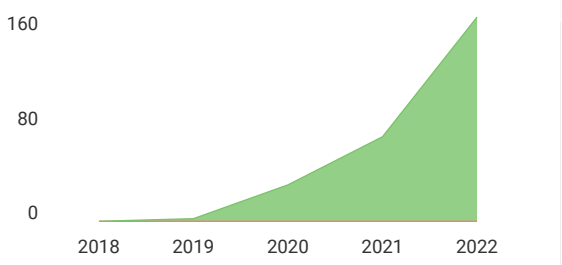

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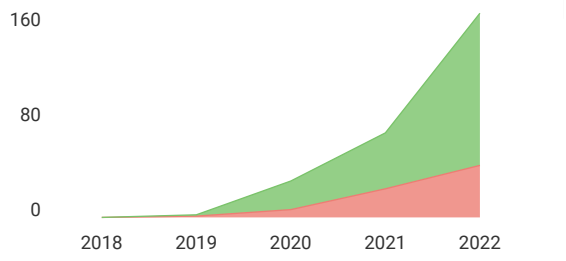

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Author 1:
First Name: Aang
Last Name: Munawar
Organization: Institut Bisnis dan Informatika Kesatuan
Country: Indonesia
Email: amunawar.ibik@gmail.com

Author 2:
First Name: Ani
Last Name: Mekaniwati
Organization: Universiti Tun Hussein Onn Malaysia
country: Indonesia
Email:

Author 3:
First Name: Abdul Talib
Last Name: Bon
Organization: Universiti Tun Hussein Onn Malaysia
Country: Indonesia
Email:

Author 4:
First Name: Iswandi
Last Name: Sukartaatmadja
Organization: Institut Bisnis dan Informatika Kesatuan
Country: Indonesia
Email:

Contact Author: Author 1

SOCIAL AND ENVIRONMENTAL MARKETING FOR SUSTAINABLE INDUSTRY PERFORMANCE: UTILIZING DATABASE MARKETING STRATEGY FOR SMALL AND MEDIUM ENTERPRISES

Aang Munawar[1], Ani Mekaniwati[2], Abdul Talib Bon[2], Iswandi Sukartaatmadja[1]

1. Faculty of Business, Institut Bisnis dan Informatika Kesatuan, Bogor, Indonesia
2. Faculty of Technology Management and Business, Universiti Tun Hussein Onn Malaysia

Abstract

This research aims to analyze sustainability challenges in the small and medium scale batik industry in Indonesia, focusing on factors such as Sustainable Industrial Performance (SIP), Marketing Orientation (MO), and Environmentally Friendly Marketing. As consumer awareness of environmental sustainability increases, demand for environmentally friendly products such as batik also increases. By investigating SIP, MO, and green marketing mix (GMM), this research seeks to explore sustainable development in the batik industry. Data from 238 respondents in Pekalongan, Central Java Province, Indonesia, was analyzed using the SEM-PLS method. These findings support six hypotheses that reveal the impact of Marketing Orientation on various aspects of Sustainable Industrial Performance and the influence of the green marketing mix on economic, environmental and social dimensions. However, four hypotheses were not supported, especially regarding the relationship between Marketing Orientation and the environmentally friendly marketing mix, as well as their combined influence on Sustainable Industrial Performance in environmental, environmental and social aspects. These results have significant implications for the batik industry. Understanding the influence of Marketing Orientation and the green marketing mix on Sustainable Industrial Performance can inform strategic decisions for businesses in this sector. Additionally, the findings highlight areas where intervention may be needed to improve sustainability practices, such as increasing alignment between Marketing Orientation and green marketing strategies. By overcoming these challenges, batik companies can better meet the growing demand for sustainable products and contribute to the long-term sustainability of the batik industry.

Keywords: Sustainable Industry Performance, Marketing Orientation, Green Marketing, SMEs

1. Introduction

The contemporary business landscape is facing pressure to respond positively to environmental challenges, driven by the increasing awareness of environmentally conscious consumers in light of increasing environmental concerns (Sun et al., 2021). However, critics argue that advertising's lack of credibility and reliability, particularly regarding environmental standards, reduces consumers' willingness to engage in environmentally responsible consumption. Eco labels serve as a mark of certification or endorsement that ensures the authenticity of eco-friendly claims, acting as a reminder to customers of the environmental attributes of their products or services. These labeled products serve as educational tools designed to help users understand the adverse environmental impacts associated with product manufacture, consumption, and disposal (Atkinson & Rosenthal, 2014; Göçer & Sevil, 2017). Businesses that are able to adapt to developing market dynamics and anticipate changing conditions will gain a competitive advantage (Ali et al., 2020). As a result, both academics and industry professionals are increasingly focusing on improving market orientation capabilities (Arief et al., 2020); oerstl et al., 2020); Murillo et al., 2021).

Despite the potential benefits, small and medium-sized enterprises (SMEs) in developing countries face challenges in achieving sustainable operations due to the high costs associated with sustainability practices, lack of skills and training, absence of standard metrics, and reluctance to adopt new technologies (Schulze et al., 2022). SME performance may be disrupted due to incomplete implementation of sustainable and innovative technological processes (Kumar & Ghodeswar, 2015). This study uses marketing orientation and environmentally friendly marketing strategies to encourage sustainable

performance among SMEs, especially in the textile sector. The aim of this research is to analyze the extent of the relationship between Marketing Orientation (MO) and Environmentally Friendly Marketing Mix (GMM) in improving the sustainable performance of the textile sector in small and medium enterprises (SMEs) in Central Java Province, Indonesia. . This study evaluates the main constructs of marketing orientation (MO) and environmental marketing (GMM) in supporting sustainable performance in textile industry SMEs in Central Java Province, Indonesia.

2. Literature Review and Hypotheses

Various previous studies have shown that companies with a market-oriented approach tend to perform better when introducing new products under conditions of uncertainty. Previous research shows that market uncertainty can strengthen the influence between Marketing Orientation (MO) and the success of new product launches (Centobelli et al., 2019). MO refers to the degree to which a company prioritizes, supports, and implements strategies in line with its marketing philosophy. According to this concept, effective marketing is essential for businesses to achieve sustainable success by identifying and satisfying customer needs more efficiently than their competitors (Taghvaee & Talebi, 2023). In addition, externally, MO pays great attention to environmental factors, emphasizing business strategies that take into account surrounding conditions (Kirca et al., 2005).

Green marketing emphasizes the ecological consequences of marketing activities and plays an important role in addressing environmental problems (Lazer, 1969). Originally conceptualized by Pride and Ferrell in 1993, environmental marketing encompasses organizational efforts to develop, promote, and sell environmentally friendly products (Day & Wensley, 1988; Jeevandas et al., 2019). At the same time, environmentally friendly management has a significant influence on ecosystem sustainability, with stakeholder demands, resources, knowledge and product uniqueness being determining factors for its success (Mekaniwati et al., 2023). When companies want to have significant market influence, especially in the contemporary and future era, overcoming environmental obstacles becomes a necessity (Raharjo, 2019). Green marketing, similar to green marketing, underscores the ecological impact of marketing and its important role in environmental mitigation (Jones et al., 2008). Embracing environmentally friendly innovation is an optimal way to increase profitability while maintaining economic competitiveness (Lazer, 1969). In addition, efforts to achieve business sustainability through environmentally friendly innovation have been catalyzed by environmentally friendly marketing principles (Costantini et al., 2017; Foerstl et al., 2020). Improving company performance is an important prerequisite for the effectiveness of marketing capabilities, the creation of mutual customer value, and market orientation in forming marketing strategies (Chen & Liu, 2018). The integration of three core interests, namely fair economic participation, environmental preservation, and social responsibility, in the decision-making process is the foundation of sustainable development (Purba et al., 2019). Accordingly, these following hypotheses are proposed in this study:

H1: Implementing Market Orientation negatively impacts Sustainable Industry Performance (Economics).
H2: Market Orientation has a positive effect on Sustainable Industry Performance (Environment).
H3: Market Orientation positively influences Sustainable Industry Performance (Social).
H4: Market Orientation does not significantly affect the implementation of Green Marketing Mix.
H5: Implementing Green Marketing Mix positively influences Sustainable Industry Performance (Economics).
H6: Implementing Green Marketing Mix has a beneficial impact on Sustainable Industry Performance (Environment).
H7: Implementing Green Marketing Mix positively affects Sustainable Industry Performance (Social).
H8: The mediating effect of Implementing Green Marketing Mix between Market Orientation and Sustainable Industry Performance (Economics) is not significant.
H9: The mediating effect of Implementing Green Marketing Mix between Market Orientation and Sustainable Industry Performance (Environment) is not significant.
H10: The mediating effect of Implementing Green Marketing Mix between Market Orientation and Sustainable Industry Performance (Social) is not significant.

3. Research Method

By amalgamating the issues, methodologies, frameworks, and models synthesized and refined in the ongoing research, the author endeavors to yield outcomes in environmental-focused marketing as formulated through the literature review in the preceding section (second section). This aids in delineating avenues to enhance a company's competitive edge through environmentally oriented marketing strategies that contribute to achieving sustainable development objectives, serving as the foundation for research material. The subsequent section comprises results and evaluations, encompassing a comprehensive discourse on the research findings. Prior to testing, ensuring the suggested theoretical framework's integrity concerning validity and reliability is imperative. Employing a quantitative research design, this study utilizes a questionnaire disseminated to 238 respondents from small and medium-sized enterprises (SMEs) to gather data. Subsequently, the data undergoes examination through partial least squares structural equation modeling. With three latent variables/dimensions and ten indicators, the research aims to explore how the interplay between Marketing Orientation (MO) and Green Marketing Mix (GMM) influences the long-term sustainability of the SME sector in Central Java Island, Indonesia. Quantitative methods facilitate the resolution of specific issues tied to clearly defined occurrences. Data analysis is conducted using Smart PLS version 4.9.5 software.

4. Results

Each item within every variable exhibits a positive loading value exceeding 0.50 and a p-value below 0.05, indicating their capability to elucidate associated dimensions or variables. Items not considered in the analysis due to their loading value falling below 0.05 are omitted from tables 1.2 and 3 in the appendix as they hold no significance.

Table 1. Path coefficient values, AVE and Cronbach's Alpha

Construct	Path Coefficient	t-value	p-value	Average Variable Extracted (AVE)	Cronbach's Alpha	Composite Reliability	VIF
Market Orientation	-	-	-	0.57	0.63	0.80	-
Customer Orientation	0.75	18.06	0.000	0.69	0.55	0.82	-
Competitor Orientation	0.72	16.45	0.000	0.60	0.35	0.75	-
Inter-function Coordination	0.80	16.46	0.000	0.51	0.68	0.80	-
Green Marketing Mix							
Green Product	0.07	1.29	0.098	0.52	0.70	0.81	1.629
Green Price	0.31	1.98	0.024	0.81	0.92	0.94	9.129
Green Place	0.12	1.85	0.032	0.62	0.79	0.87	3.334
Green Promotion	0.17	1.27	0.103	0.71	0.87	0.91	8.655
Green Process	0.19	2.29	0.011	0.65	0.86	0.90	3.027
Green People	0.19	1.75	0.040	0.76	0.89	0.93	5.335
Green Physical Evidence	0.06	0.61	0.270	0.71	0.86	0.91	3.476
Sustainable Industry Performance (Economics)	-	-	-	0.54	0.79	0.85	-
Sustainable Industry Performance (Environment)	-	-	-	0.70	0.78	0.87	-
Sustainable Industry Performance (Social)	-	-	-	0.61	0.78	0.86	-

Almost all dimensions consisting of the second order of each variable show path coefficient values exceeding 0.50 and p values below 0.05, which indicates an effective explanation of the related latent

variables. In the case of the Environmentally Friendly Marketing Mix Implementation variable, three indicator variables, namely Environmentally Friendly Products, Environmentally Friendly Promotion, and Environmentally Friendly Physical Evidence, have p values above 0.05, thus making these variables statistically insignificant.

The second-order dimensions as well as the primary latent variable all demonstrate AVE values surpassing or nearing 0.50. This indicates that these dimensions or primary latent variables satisfy the construct validity criteria. The majority of dimensions constituting the second-order and primary latent variables exhibit Composite Reliability values exceeding 0.70. This indicates that these dimensions or primary latent variables have fulfilled the construct reliability criteria. Lastly, the formative indicators of the Implementing Green Marketing Mix variable all display VIF values below 10, signifying the absence of multicollinearity among these indicators.

The findings of the endogenous latent variable analysis in Table 2 show that the Implementation of Market Orientation and the Implementation of an Environmentally Friendly Marketing Mix show weak predictive power. In addition, Sustainable Industrial Performance in the Economic, Environmental and Social dimensions shows moderate to strong R2 values, which indicates that there is a significant proportion of variance that can be explained by the model. Finally, the Q2 value for the Sustainable Industrial Performance variable shows acceptable predictive relevance, implying the model's ability to accurately predict sustainability outcomes. Even though the implementation of an environmentally friendly marketing mix has a minimal impact on sustainable industrial performance in the economic sector, it has a significant impact on the environmental and social dimensions as indicated by the fairly large $f2$ value.

Table 2. Coefficient of Determination (R2) and Predictive Relevance (Q2)

Endogenous Latent Variables	f^2	R^2	Q^2
Implementation of Market Orientation	0.00		
Implementing Green Marketing Mix		0.00	0.01
Sustainable Industry Performance (Economics)		0.57	0.29
Sustainable Industry Performance (Environment)		0.53	0.36
Sustainable Industry Performance (Social)		0.76	0.46
Implementing Green Marketing Mix		0.00	0.01
Sustainable Industry Performance (Economics)		0.57	0.29
Implementation of Market Orientation	0.05		
Implementing Green Marketing Mix	1.28		
Sustainable Industry Performance (Environment)		0.53	0.36
Implementation of Market Orientation	0.05		
Implementing Green Marketing Mix	1.05		
Sustainable Industry Performance (Social)		0.76	0.46
Implementation of Market Orientation	0.18		
Implementing Green Marketing Mix	2.96		

The findings in Table 3 illustrate the relationship between Market Orientation and Sustainable Industrial Performance in the economic, environmental and social dimensions. Market Orientation is positively correlated with Environmental and Social Performance, indicating its influence in promoting sustainability. However, this is negatively correlated with Economic Performance. Sustainable Industrial Performance shows a strong positive correlation between its dimensions, indicating a cohesive relationship between economic, environmental and social aspects. These results suggest that although Market Orientation may have a positive impact on environmental and social sustainability, its impact on the economic performance of the batik industry may not be as pronounced.

Table 3. Second Order Fornell-Lacker

Variable	Market Orientation	Sustainable Industry Performance (Economics)	Sustainable Industry Performance (Environment)	Sustainable Industry Performance (Social)
Market Orientation	0.578			
Sustainable Industry Performance (Economics)	-0.109	0.737		
Sustainable Industry Performance (Environment)	0.193	0.674	0.836	
Sustainable Industry Performance (Social)	0.255	0.638	0.757	0.780

The hypothesis testing revealed that the Implementation of Market Orientation influences Sustainable Industry Performance (Economics) significantly (p-value = 0.00 < 0.05) (Table 4). Therefore, the first hypothesis is accepted, indicating that implementing Market Orientation negatively impacts Sustainable Industry Performance (Economics). The findings of this research are consistent with previous research exploring the relationship between Market Orientation and Sustainable Industrial Performance. Previous research has highlighted the importance of Market Orientation in driving organizational performance, including its impact on economic, environmental and social dimensions. For example, Udriyah et al. (2019) research emphasizes the positive influence of Market Orientation on company performance, especially in terms of market responsiveness and competitiveness. Similarly, Tajeddini & Ratten (2020) found that Market Orientation was associated with increased business performance and customer satisfaction.

The Implementation of Market Orientation positively influences Sustainable Industry Performance (Environment) significantly (p-value = 0.00 < 0.05). Hence, the second hypothesis is accepted, demonstrating that Market Orientation has a positive effect on Sustainable Industry Performance (Environment). Furthermore, the positive influence of Market Orientation on Sustainable Industrial Performance (Environmental and Social) is in line with the principles of sustainable development and corporate social responsibility (CSR). The Implementation of Market Orientation positively affects Sustainable Industry Performance (Social) significantly (p-value = 0.00 < 0.05). Consequently, the third hypothesis is accepted, highlighting the positive impact of Market Orientation on Sustainable Industry Performance (Social). Previous research in the fields of sustainability and marketing has underscored the role of Market Orientation in promoting environmentally and socially responsible business practices. For example, Tjahjadi et al. (2020) highlight the importance of Market Orientation in driving environmentally friendly product innovation and meeting consumer demand for environmentally friendly products. Likewise, Alhakimi & Mahmoud (2020) found that Market Orientation had a positive effect on a company's responsiveness to social issues.

The Implementation of Market Orientation does not significantly influence the implementation of Green Marketing Mix (p-value = 0.27 > 0.05). Thus, the fourth hypothesis is rejected, suggesting no significant effect of Market Orientation on the implementation of Green Marketing Mix. However, the lack of significant influence of Market Orientation on the implementation of the Environmentally Friendly Marketing Mix observed in this study is different from several previous studies. Research by Keszey (2020) states a positive relationship between Market Orientation and the adoption of environmentally friendly marketing practices. For example, Danso et al. (2019) found that Market Orientation had a

positive effect on a company's environmental marketing strategy. This difference may be caused by contextual factors specific to the batik industry.

Table 4. Hypothesis testing results

Hypothesis		β	Standard Error	t-value	p-value	Conclusion
H1	MO → SIP Eco	-0.15	0.05	3.12	0.001	Accepted
H2	MO → SIP Env	0.15	0.05	3.33	0.000	Accepted
H3	MO → SIP Soc	0.21	0.04	4.92	0.000	Accepted
H4	MO → GMM	0.06	0.09	0.62	0.268	Rejected
H5	GMM → SIP Eco	0.75	0.03	26.03	0.000	Accepted
H6	GMM → SIP Env	0.70	0.04	16.86	0.000	Accepted
H7	GMM → SIP Soc	0.84	0.02	35.48	0.000	Accepted
H8	MO → GMM → SIP Eco	0.04	0.07	0.61	0.270	Rejected
H9	MO → GMM → SIP Env	0.04	0.07	0.62	0.269	Rejected
H10	MO → GMM → SIP Soc	0.05	0.08	0.62	0.269	Rejected

The Implementation of Green Marketing Mix significantly affects Sustainable Industry Performance (Economics) (p-value = 0.00 < 0.05). Consequently, the fifth hypothesis is accepted, indicating a positive influence of Implementing Green Marketing Mix on Sustainable Industry Performance (Economics). Moreover, the Implementation of Green Marketing Mix significantly influences Sustainable Industry Performance (Environment) (p-value = 0.03 < 0.05). Therefore, the sixth hypothesis is accepted, illustrating a significant effect of Implementing Green Marketing Mix on Sustainable Industry Performance (Environment). In addition, the Implementation of Green Marketing Mix significantly influences Sustainable Industry Performance (Social) (p-value = 0.00 < 0.05). Thus, the seventh hypothesis is accepted, indicating a positive effect between Implementing Green Marketing Mix and Sustainable Industry Performance (Social). The findings regarding the significant influence of the Implementation of an Environmentally Friendly Marketing Mix on Sustainable Industrial Performance echo previous research in the field of sustainable marketing. A number of studies have highlighted the positive impact of green marketing strategies on various dimensions of business performance. For example, Liao et al. (2020) emphasize the economic, environment and social benefits of green marketing, suggesting that green products can attract premium prices and increase brand loyalty. Similarly, Gelderman et al. (2021) found that green marketing initiatives contributed to improved environmental performance and customer perceptions.

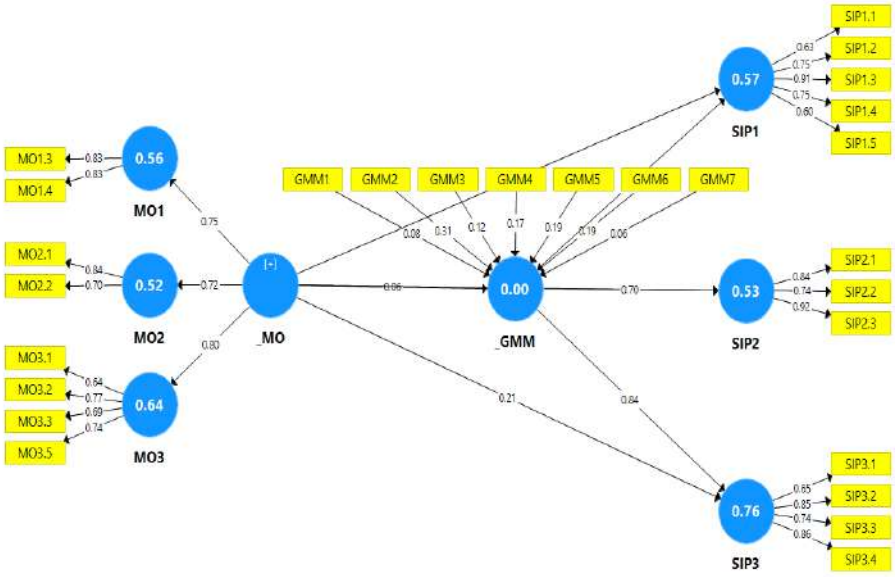

Figure 1. SEM PLS Result

The mediating effect of Implementing Green Marketing Mix between Implementation of Market Orientation and Sustainable Industry Performance (Economics) is not significant (p-value = 0.270 > 0.05). Consequently, the eighth hypothesis is rejected, suggesting no significant mediation effect. The mediating effect of Implementing Green Marketing Mix between Implementation of Market Orientation and Sustainable Industry Performance (Environment) is not significant (p-value = 0.269 > 0.05). Hence, the ninth hypothesis is rejected, indicating no significant mediation effect. The mediating effect of Implementing Green Marketing Mix between Implementation of Market Orientation and Sustainable Industry Performance (Social) is not significant (p-value = 0.269 > 0.05). Therefore, the tenth hypothesis is rejected, suggesting no significant mediation effect at an error level of 5%. Previous research has demonstrated the potential mediating role of green marketing practices in the relationship between Market Orientation and sustainability outcomes. Studies conducted by Abbas et al. (2019) and Papadas et al. (2019) have highlighted the positive impact of green marketing initiatives on a variety of organizational outcomes, including economic, environmental, and social performance. These findings indicate that environmentally friendly marketing can act as a mediator between Market Orientation and Sustainable Industrial Performance. However, the findings of this research indicate that the mediating effect of Implementing an Environmentally Friendly Marketing Mix between Market Orientation and Sustainable Industrial Performance (Economic, Environmental and Social) is not statistically significant in the context of the batik industry. This is different from the research of Guo et al. (2020) which shows that there are deviations from the expected mediating role of environmentally friendly marketing practices. This gap underscores the importance of considering industry-specific factors and contextual nuances in understanding the relationship between Market Orientation, Green Marketing Mix, and sustainability outcomes.

5. Conclusion

This study concludes that there is a significant relationship between Market Orientation, Environmentally Friendly Marketing Mix, and Sustainable Industrial Performance on economic, environmental and social dimensions in the batik industry. Even though Market Orientation has a negative impact on Economic Performance, Market Orientation has a positive impact on Environmental and Social Performance. On the other hand, the Implementation of an Environmentally Friendly Marketing Mix has a positive influence on all dimensions of Sustainable Industrial Performance, and highlights its role in driving overall industrial sustainability.

Theoretically, this study underscores the importance of integrating environmental considerations into marketing strategies and business operations to improve sustainability outcomes. This emphasizes the need for the business world to adopt a holistic approach that combines Market Orientation and Environmentally Friendly Marketing Mix strategies to achieve sustainable industrial performance. Practically, these findings provide valuable insights for stakeholders in the batik industry, and guide strategic decision-making processes. By aligning business practices with consumers' growing preferences for environmentally friendly products, companies can improve their sustainability performance across economic, environmental and social dimensions.

The limitation of this research is that it is limited to small and medium scale batik companies which limits the generalizability of these findings. Future research could overcome these limitations by expanding the scope of the study to cover a wider geographic area and a more diverse range of industry players.

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Gmail Aang Munawar <amunawar.ibik@gmail.com>

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SOCIAL AND ENVIRONMENTAL MARKETING FOR SUSTAINABLE INDUSTRY PERFORMANCE: UTILIZING DATABASE MARKETING STRATEGY FOR SMALL AND MEDIUM ENTERPRISES

Aang Munawar[1], Ani Mekaniwati[2], Abdul Talib Bon[2], Iswandi Sukartaatmadja[1]

1. Faculty of Business, Institut Bisnis dan Informatika Kesatuan, Bogor, Indonesia
2. Faculty of Technology Management and Business, Universiti Tun Hussein Onn Malaysia

Abstract

This research aims to analyze sustainability challenges in the small and medium scale batik industry in Indonesia, focusing on factors such as Sustainable Industrial Performance (SIP), Marketing Orientation (MO), and Environmentally Friendly Marketing. As consumer awareness of environmental sustainability increases, demand for environmentally friendly products such as batik also increases. By investigating SIP, MO, and green marketing mix (GMM), this research seeks to explore sustainable development in the batik industry. Data from 238 respondents in Pekalongan, Central Java Province, Indonesia, was analyzed using the SEM-PLS method. These findings support six hypotheses that reveal the impact of Marketing Orientation on various aspects of Sustainable Industrial Performance and the influence of the green marketing mix on economic, environmental and social dimensions. However, four hypotheses were not supported, especially regarding the relationship between Marketing Orientation and the environmentally friendly marketing mix, as well as their combined influence on Sustainable Industrial Performance in environmental, environmental and social aspects. These results have significant implications for the batik industry. Understanding the influence of Marketing Orientation and the green marketing mix on Sustainable Industrial Performance can inform strategic decisions for businesses in this sector. Additionally, the findings highlight areas where intervention may be needed to improve sustainability practices, such as increasing alignment between Marketing Orientation and green marketing strategies. By overcoming these challenges, batik companies can better meet the growing demand for sustainable products and contribute to the long-term sustainability of the batik industry.

Keywords: Sustainable Industry Performance, Marketing Orientation, Green Marketing, SMEs

1. Introduction

The contemporary business landscape is facing pressure to respond positively to environmental challenges, driven by the increasing awareness of environmentally conscious consumers in light of increasing environmental concerns (Sun et al., 2021). However, critics argue that advertising's lack of credibility and reliability, particularly regarding environmental standards, reduces consumers' willingness to engage in environmentally responsible consumption. Eco labels serve as a mark of certification or endorsement that ensures the authenticity of eco-friendly claims, acting as a reminder to customers of the environmental attributes of their products or services. These labeled products serve as educational tools designed to help users understand the adverse environmental impacts associated with product manufacture, consumption, and disposal (Atkinson & Rosenthal, 2014; Göçer & Sevil, 2017). Businesses that are able to adapt to developing market dynamics and anticipate changing conditions will gain a competitive advantage (Ali et al., 2020). As a result, both academics and industry professionals are increasingly focusing on improving market orientation capabilities (Arief et al., 2020); oerstl et al., 2020); Murillo et al., 2021).

Despite the potential benefits, small and medium-sized enterprises (SMEs) in developing countries face challenges in achieving sustainable operations due to the high costs associated with sustainability practices, lack of skills and training, absence of standard metrics, and reluctance to adopt new technologies (Schulze et al., 2022). SME performance may be disrupted due to incomplete implementation of sustainable and innovative technological processes (Kumar & Ghodeswar, 2015). This study uses marketing orientation and environmentally friendly marketing strategies to encourage sustainable

performance among SMEs, especially in the textile sector. The aim of this research is to analyze the extent of the relationship between Marketing Orientation (MO) and Environmentally Friendly Marketing Mix (GMM) in improving the sustainable performance of the textile sector in small and medium enterprises (SMEs) in Central Java Province, Indonesia. . This study evaluates the main constructs of marketing orientation (MO) and environmental marketing (GMM) in supporting sustainable performance in textile industry SMEs in Central Java Province, Indonesia.

2. Literature Review and Hypotheses

Various previous studies have shown that companies with a market-oriented approach tend to perform better when introducing new products under conditions of uncertainty. Previous research shows that market uncertainty can strengthen the influence between Marketing Orientation (MO) and the success of new product launches (Centobelli et al., 2019). MO refers to the degree to which a company prioritizes, supports, and implements strategies in line with its marketing philosophy. According to this concept, effective marketing is essential for businesses to achieve sustainable success by identifying and satisfying customer needs more efficiently than their competitors (Taghvaee & Talebi, 2023). In addition, externally, MO pays great attention to environmental factors, emphasizing business strategies that take into account surrounding conditions (Kirca et al., 2005).

Green marketing emphasizes the ecological consequences of marketing activities and plays an important role in addressing environmental problems (Lazer, 1969). Originally conceptualized by Pride and Ferrell in 1993, environmental marketing encompasses organizational efforts to develop, promote, and sell environmentally friendly products (Day & Wensley, 1988; Jeevandas et al., 2019). At the same time, environmentally friendly management has a significant influence on ecosystem sustainability, with stakeholder demands, resources, knowledge and product uniqueness being determining factors for its success (Mekaniwati et al., 2023). When companies want to have significant market influence, especially in the contemporary and future era, overcoming environmental obstacles becomes a necessity (Raharjo, 2019). Green marketing, similar to green marketing, underscores the ecological impact of marketing and its important role in environmental mitigation (Jones et al., 2008). Embracing environmentally friendly innovation is an optimal way to increase profitability while maintaining economic competitiveness (Lazer, 1969). In addition, efforts to achieve business sustainability through environmentally friendly innovation have been catalyzed by environmentally friendly marketing principles (Costantini et al., 2017; Foerstl et al., 2020). Improving company performance is an important prerequisite for the effectiveness of marketing capabilities, the creation of mutual customer value, and market orientation in forming marketing strategies (Chen & Liu, 2018). The integration of three core interests, namely fair economic participation, environmental preservation, and social responsibility, in the decision-making process is the foundation of sustainable development (Purba et al., 2019). Accordingly, these following hypotheses are proposed in this study:

H1: Implementing Market Orientation negatively impacts Sustainable Industry Performance (Economics).
H2: Market Orientation has a positive effect on Sustainable Industry Performance (Environment).
H3: Market Orientation positively influences Sustainable Industry Performance (Social).
H4: Market Orientation does not significantly affect the implementation of Green Marketing Mix.
H5: Implementing Green Marketing Mix positively influences Sustainable Industry Performance (Economics).
H6: Implementing Green Marketing Mix has a beneficial impact on Sustainable Industry Performance (Environment).
H7: Implementing Green Marketing Mix positively affects Sustainable Industry Performance (Social).
H8: The mediating effect of Implementing Green Marketing Mix between Market Orientation and Sustainable Industry Performance (Economics) is not significant.
H9: The mediating effect of Implementing Green Marketing Mix between Market Orientation and Sustainable Industry Performance (Environment) is not significant.
H10: The mediating effect of Implementing Green Marketing Mix between Market Orientation and Sustainable Industry Performance (Social) is not significant.

3. Research Method

By amalgamating the issues, methodologies, frameworks, and models synthesized and refined in the ongoing research, the author endeavors to yield outcomes in environmental-focused marketing as formulated through the literature review in the preceding section (second section). This aids in delineating avenues to enhance a company's competitive edge through environmentally oriented marketing strategies that contribute to achieving sustainable development objectives, serving as the foundation for research material. The subsequent section comprises results and evaluations, encompassing a comprehensive discourse on the research findings. Prior to testing, ensuring the suggested theoretical framework's integrity concerning validity and reliability is imperative. Employing a quantitative research design, this study utilizes a questionnaire disseminated to 238 respondents from small and medium-sized enterprises (SMEs) to gather data. Subsequently, the data undergoes examination through partial least squares structural equation modeling. With three latent variables/dimensions and ten indicators, the research aims to explore how the interplay between Marketing Orientation (MO) and Green Marketing Mix (GMM) influences the long-term sustainability of the SME sector in Central Java Island, Indonesia. Quantitative methods facilitate the resolution of specific issues tied to clearly defined occurrences. Data analysis is conducted using Smart PLS version 4.9.5 software.

4. Results

Each item within every variable exhibits a positive loading value exceeding 0.50 and a p-value below 0.05, indicating their capability to elucidate associated dimensions or variables. Items not considered in the analysis due to their loading value falling below 0.05 are omitted from tables 1.2 and 3 in the appendix as they hold no significance.

Table 1. Path coefficient values, AVE and Cronbach's Alpha

Construct	Path Coefficient	t-value	p-value	Average Variable Extracted (AVE)	Cronbach's Alpha	Composite Reliability	VIF
Market Orientation	-	-	-	0.57	0.63	0.80	-
Customer Orientation	0.75	18.06	0.000	0.69	0.55	0.82	-
Competitor Orientation	0.72	16.45	0.000	0.60	0.35	0.75	-
Inter-function Coordination	0.80	16.46	0.000	0.51	0.68	0.80	-
Green Marketing Mix							
Green Product	0.07	1.29	0.098	0.52	0.70	0.81	1.629
Green Price	0.31	1.98	0.024	0.81	0.92	0.94	9.129
Green Place	0.12	1.85	0.032	0.62	0.79	0.87	3.334
Green Promotion	0.17	1.27	0.103	0.71	0.87	0.91	8.655
Green Process	0.19	2.29	0.011	0.65	0.86	0.90	3.027
Green People	0.19	1.75	0.040	0.76	0.89	0.93	5.335
Green Physical Evidence	0.06	0.61	0.270	0.71	0.86	0.91	3.476
Sustainable Industry Performance (Economics)	-	-	-	0.54	0.79	0.85	-
Sustainable Industry Performance (Environment)	-	-	-	0.70	0.78	0.87	-
Sustainable Industry Performance (Social)	-	-	-	0.61	0.78	0.86	-

1

Almost all dimensions consisting of the second order of each variable show path coefficient values exceeding 0.50 and p values below 0.05, which indicates an effective explanation of the related latent

variables. In the case of the Environmentally Friendly Marketing Mix Implementation variable, three indicator variables, namely Environmentally Friendly Products, Environmentally Friendly Promotion, and Environmentally Friendly Physical Evidence, have p values above 0.05, thus making these variables statistically insignificant.

The second-order dimensions as well as the primary latent variable all demonstrate AVE values surpassing or nearing 0.50. This indicates that these dimensions or primary latent variables satisfy the construct validity criteria. The majority of dimensions constituting the second-order and primary latent variables exhibit Composite Reliability values exceeding 0.70. This indicates that these dimensions or primary latent variables have fulfilled the construct reliability criteria. Lastly, the formative indicators of the Implementing Green Marketing Mix variable all display VIF values below 10, signifying the absence of multicollinearity among these indicators.

The findings of the endogenous latent variable analysis in Table 2 show that the Implementation of Market Orientation and the Implementation of an Environmentally Friendly Marketing Mix show weak predictive power. In addition, Sustainable Industrial Performance in the Economic, Environmental and Social dimensions shows moderate to strong R2 values, which indicates that there is a significant proportion of variance that can be explained by the model. Finally, the Q2 value for the Sustainable Industrial Performance variable shows acceptable predictive relevance, implying the model's ability to accurately predict sustainability outcomes. Even though the implementation of an environmentally friendly marketing mix has a minimal impact on sustainable industrial performance in the economic sector, it has a significant impact on the environmental and social dimensions as indicated by the fairly large $f2$ value.

Table 2. Coefficient of Determination (R2) and Predictive Relevance (Q2)

Endogenous Latent Variables	f^2	R^2	Q^2
Implementation of Market Orientation	0.00		
Implementing Green Marketing Mix		0.00	0.01
Sustainable Industry Performance (Economics)		0.57	0.29
Sustainable Industry Performance (Environment)		0.53	0.36
Sustainable Industry Performance (Social)		0.76	0.46
Implementing Green Marketing Mix		0.00	0.01
Sustainable Industry Performance (Economics)		0.57	0.29
Implementation of Market Orientation	0.05		
Implementing Green Marketing Mix	1.28		
Sustainable Industry Performance (Environment)		0.53	0.36
Implementation of Market Orientation	0.05		
Implementing Green Marketing Mix	1.05		
Sustainable Industry Performance (Social)		0.76	0.46
Implementation of Market Orientation	0.18		
Implementing Green Marketing Mix	2.96		

The findings in Table 3 illustrate the relationship between Market Orientation and Sustainable Industrial Performance in the economic, environmental and social dimensions. Market Orientation is positively correlated with Environmental and Social Performance, indicating its influence in promoting sustainability. However, this is negatively correlated with Economic Performance. Sustainable Industrial Performance shows a strong positive correlation between its dimensions, indicating a cohesive relationship between economic, environmental and social aspects. These results suggest that although Market Orientation may have a positive impact on environmental and social sustainability, its impact on the economic performance of the batik industry may not be as pronounced.

Table 3. Second Order Fornell-Lacker

Variable	Market Orientation	Sustainable Industry Performance (Economics)	Sustainable Industry Performance (Environment)	Sustainable Industry Performance (Social)
Market Orientation	0.578			
Sustainable Industry Performance (Economics)	-0.109	0.737		
Sustainable Industry Performance (Environment)	0.193	0.674	0.836	
Sustainable Industry Performance (Social)	0.255	0.638	0.757	0.780

The hypothesis testing revealed that the Implementation of Market Orientation influences Sustainable Industry Performance (Economics) significantly (p-value = 0.00 < 0.05) (Table 4). Therefore, the first hypothesis is accepted, indicating that implementing Market Orientation negatively impacts Sustainable Industry Performance (Economics). The findings of this research are consistent with previous research exploring the relationship between Market Orientation and Sustainable Industrial Performance. Previous research has highlighted the importance of Market Orientation in driving organizational performance, including its impact on economic, environmental and social dimensions. For example, Udriyah et al. (2019) research emphasizes the positive influence of Market Orientation on company performance, especially in terms of market responsiveness and competitiveness. Similarly, Tajeddini & Ratten (2020) found that Market Orientation was associated with increased business performance and customer satisfaction.

The Implementation of Market Orientation positively influences Sustainable Industry Performance (Environment) significantly (p-value = 0.00 < 0.05). Hence, the second hypothesis is accepted, demonstrating that Market Orientation has a positive effect on Sustainable Industry Performance (Environment). Furthermore, the positive influence of Market Orientation on Sustainable Industrial Performance (Environmental and Social) is in line with the principles of sustainable development and corporate social responsibility (CSR). The Implementation of Market Orientation positively affects Sustainable Industry Performance (Social) significantly (p-value = 0.00 < 0.05). Consequently, the third hypothesis is accepted, highlighting the positive impact of Market Orientation on Sustainable Industry Performance (Social). Previous research in the fields of sustainability and marketing has underscored the role of Market Orientation in promoting environmentally and socially responsible business practices. For example, Tjahjadi et al. (2020) highlight the importance of Market Orientation in driving environmentally friendly product innovation and meeting consumer demand for environmentally friendly products. Likewise, Alhakimi & Mahmoud (2020) found that Market Orientation had a positive effect on a company's responsiveness to social issues.

The Implementation of Market Orientation does not significantly influence the implementation of Green Marketing Mix (p-value = 0.27 > 0.05). Thus, the fourth hypothesis is rejected, suggesting no significant effect of Market Orientation on the implementation of Green Marketing Mix. However, the lack of significant influence of Market Orientation on the implementation of the Environmentally Friendly Marketing Mix observed in this study is different from several previous studies. Research by Keszey (2020) states a positive relationship between Market Orientation and the adoption of environmentally friendly marketing practices. For example, Danso et al. (2019) found that Market Orientation had a

positive effect on a company's environmental marketing strategy. This difference may be caused by contextual factors specific to the batik industry.

Table 4. Hypothesis testing results

Hypothesis		β	Standard Error	t-value	p-value	Conclusion
H1	MO → SIP Eco	-0.15	0.05	3.12	0.001	Accepted
H2	MO → SIP Env	0.15	0.05	3.33	0.000	Accepted
H3	MO → SIP Soc	0.21	0.04	4.92	0.000	Accepted
H4	MO → GMM	0.06	0.09	0.62	0.268	Rejected
H5	GMM → SIP Eco	0.75	0.03	26.03	0.000	Accepted
H6	GMM → SIP Env	0.70	0.04	16.86	0.000	Accepted
H7	GMM → SIP Soc	0.84	0.02	35.48	0.000	Accepted
H8	MO → GMM → SIP Eco	0.04	0.07	0.61	0.270	Rejected
H9	MO → GMM → SIP Env	0.04	0.07	0.62	0.269	Rejected
H10	MO → GMM → SIP Soc	0.05	0.08	0.62	0.269	Rejected

The Implementation of Green Marketing Mix significantly affects Sustainable Industry Performance (Economics) (p-value = 0.00 < 0.05). Consequently, the fifth hypothesis is accepted, indicating a positive influence of Implementing Green Marketing Mix on Sustainable Industry Performance (Economics). Moreover, the Implementation of Green Marketing Mix significantly influences Sustainable Industry Performance (Environment) (p-value = 0.03 < 0.05). Therefore, the sixth hypothesis is accepted, illustrating a significant effect of Implementing Green Marketing Mix on Sustainable Industry Performance (Environment). In addition, the Implementation of Green Marketing Mix significantly influences Sustainable Industry Performance (Social) (p-value = 0.00 < 0.05). Thus, the seventh hypothesis is accepted, indicating a positive effect between Implementing Green Marketing Mix and Sustainable Industry Performance (Social). The findings regarding the significant influence of the Implementation of an Environmentally Friendly Marketing Mix on Sustainable Industrial Performance echo previous research in the field of sustainable marketing. A number of studies have highlighted the positive impact of green marketing strategies on various dimensions of business performance. For example, Liao et al. (2020) emphasize the economic, environment and social benefits of green marketing, suggesting that green products can attract premium prices and increase brand loyalty. Similarly, Gelderman et al. (2021) found that green marketing initiatives contributed to improved environmental performance and customer perceptions.

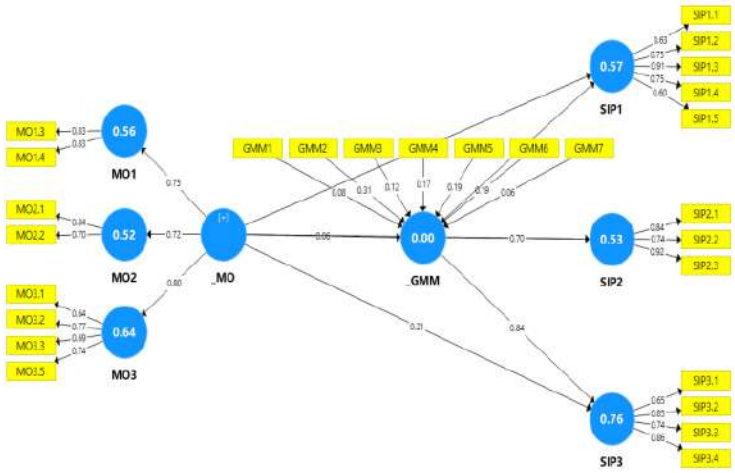

Figure 1. SEM PLS Result

The mediating effect of Implementing Green Marketing Mix between Implementation of Market Orientation and Sustainable Industry Performance (Economics) is not significant (p-value = 0.271 > 0.05). Consequently, the eighth hypothesis is rejected, suggesting no significant mediation effect. The mediating effect of Implementing Green Marketing Mix between Implementation of Market Orientation and Sustainable Industry Performance (Environment) is not significant (p-value = 0.269 > 0.05). Hence, the ninth hypothesis is rejected, indicating no significant mediation effect. The mediating effect of Implementing Green Marketing Mix between Implementation of Market Orientation and Sustainable Industry Performance (Social) is not significant (p-value = 0.269 > 0.05). Therefore, the tenth hypothesis is rejected, suggesting no significant mediation effect at an error level of 5%. Previous research has demonstrated the potential mediating role of green marketing practices in the relationship between Market Orientation and sustainability outcomes. Studies conducted by Abbas et al. (2019) and Papadas et al. (2019) have highlighted the positive impact of green marketing initiatives on a variety of organizational outcomes, including economic, environmental, and social performance. These findings indicate that environmentally friendly marketing can act as a mediator between Market Orientation and Sustainable Industrial Performance. However, the findings of this research indicate that the mediating effect of Implementing an Environmentally Friendly Marketing Mix between Market Orientation and Sustainable Industrial Performance (Economic, Environmental and Social) is not statistically significant in the context of the batik industry. This is different from the research of Guo et al. (2020) which shows that there are deviations from the expected mediating role of environmentally friendly marketing practices. This gap underscores the importance of considering industry-specific factors and contextual nuances in understanding the relationship between Market Orientation, Green Marketing Mix, and sustainability outcomes.

5. Conclusion

This study concludes that there is a significant relationship between Market Orientation, Environmentally Friendly Marketing Mix, and Sustainable Industrial Performance on economic, environmental and social dimensions in the batik industry. Even though Market Orientation has a negative impact on Economic Performance, Market Orientation has a positive impact on Environmental and Social Performance. On the other hand, the Implementation of an Environmentally Friendly Marketing Mix has a positive influence on all dimensions of Sustainable Industrial Performance, and highlights its role in driving overall industrial sustainability.

Theoretically, this study underscores the importance of integrating environmental considerations into marketing strategies and business operations to improve sustainability outcomes. This emphasizes the need for the business world to adopt a holistic approach that combines Market Orientation and Environmentally Friendly Marketing Mix strategies to achieve sustainable industrial performance. Practically, these findings provide valuable insights for stakeholders in the batik industry, and guide strategic decision-making processes. By aligning business practices with consumers' growing preferences for environmentally friendly products, companies can improve their sustainability performance across economic, environmental and social dimensions.

The limitation of this research is that it is limited to small and medium scale batik companies which limits the generalizability of these findings. Future research could overcome these limitations by expanding the scope of the study to cover a wider geographic area and a more diverse range of industry players.

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SOCIAL AND ENVIRONMENTAL MARKETING FOR SUSTAINABLE INDUSTRY PERFORMANCE: UTILIZING DATABASE MARKETING STRATEGY FOR SMALL AND MEDIUM ENTERPRISES

Aang Munawar[1], Ani Mekaniwati[2], Abdul Talib Bon[2], Iswandi Sukartaatmadja[1]

1. Faculty of Business, Institut Bisnis dan Informatika Kesatuan, Bogor, Indonesia
2. Faculty of Technology Management and Business, Universiti Tun Hussein Onn Malaysia

Abstract

This research aims to analyze sustainability challenges in the small and ~~medium scale~~medium-scale batik industry in Indonesia, focusing on factors such as Sustainable Industrial Performance (SIP), Marketing Orientation (MO), and Environmentally Friendly Marketing. As consumer awareness of environmental sustainability increases, demand for environmentally friendly products such as batik also increases. By investigating SIP, MO, and green marketing mix (GMM), this research seeks to explore sustainable development in the batik industry. Data from 238 respondents in Pekalongan, Central Java Province, Indonesia, was analyzed using the SEM-PLS method. These findings support six hypotheses that reveal the impact of Marketing Orientation on various aspects of Sustainable Industrial Performance and the influence of the green marketing mix on economic, environmental, and social dimensions. However, four hypotheses were not supported, especially regarding the relationship between Marketing Orientation and the environmentally friendly marketing mix, as well as their combined influence on Sustainable Industrial Performance in environmental, environmental, and social aspects. These results have significant implications for the batik industry. Understanding the ~~influence~~ impact of Marketing Orientation and the green marketing mix on Sustainable Industrial Performance can inform strategic decisions for businesses in this sector. Additionally, the findings highlight areas where intervention may be needed to improve sustainability practices, such as increasing alignment between Marketing Orientation and green marketing strategies. By overcoming these challenges, batik companies can better meet the growing demand for sustainable products and contribute to the long-term sustainability of the batik industry.

Keywords: Sustainable Industry Performance, Marketing Orientation, Green Marketing, SMEs

1. Introduction

The contemporary business landscape is facing pressure to respond positively to environmental challenges, driven by the increasing awareness of environmentally conscious consumers in light of increasing environmental concerns (Sun et al., 2021). However, critics argue that advertising's lack of credibility and reliability, particularly regarding environmental standards, reduces consumers' willingness to engage in environmentally responsible consumption. ~~Eco-labels~~Eco-labels serve as a mark of certification or endorsement that ensures the authenticity of eco-friendly claims, acting as a reminder to customers of the environmental attributes of their products or services. These labeled products serve as educational tools designed to help users understand the adverse environmental impacts associated with product manufacture, consumption, and disposal (Atkinson & Rosenthal, 2014; Göçer & Sevil, 2017). Businesses that are able to adapt to developing market dynamics and anticipate changing conditions will gain a competitive advantage (Ali et al., 2020). As a result, both academics and industry professionals are increasingly focusing on improving market orientation capabilities (Arief et al., 2020); ~~oerstl~~ Oerstl et al., 2020); Murillo et al., 2021).

Despite the potential benefits, small and medium-sized enterprises (SMEs) in developing countries face challenges in achieving sustainable operations due to the high costs associated with sustainability practices, lack of skills and training, absence of standard metrics, and reluctance to adopt new technologies (Schulze et al., 2022). SME performance may be disrupted due to incomplete implementation of sustainable and innovative technological processes (Kumar & Ghodeswar, 2015). This study uses marketing orientation and environmentally friendly marketing strategies to encourage sustainable

performance among SMEs, especially in the textile sector. The aim of this research is to analyze the extent of the relationship between Marketing Orientation (MO) and Environmentally Friendly Marketing Mix (GMM) in improving the sustainable performance of the textile sector in small and medium enterprises (SMEs) in Central Java Province, Indonesia~~.~~. This study evaluates the main constructs of marketing orientation (MO) and environmental marketing (GMM) in supporting sustainable performance in textile industry SMEs in Central Java Province, Indonesia.

2. Literature Review and Hypotheses

Various previous studies have shown that companies with a market-oriented approach tend to perform better when introducing new products under conditions of uncertainty. Previous research shows that market uncertainty can strengthen the influence between Marketing Orientation (MO) and the success of new product launches (Centobelli et al., 2019). MO refers to the degree to which a company prioritizes, supports, and implements strategies in line with its marketing philosophy. According to this concept, effective marketing is essential for businesses to achieve sustainable success by identifying and satisfying customer needs more efficiently than their competitors (Taghvaee & Talebi, 2023). In addition, externally, MO pays great attention to environmental factors, emphasizing business strategies that take into account surrounding conditions (Kirca et al., 2005).

Green marketing emphasizes the ecological consequences of marketing activities and plays an important role in addressing environmental problems (Lazer, 1969). Originally conceptualized by Pride and Ferrell in 1993, environmental marketing encompasses organizational efforts to develop, promote, and sell environmentally friendly products (Day & Wensley, 1988; Jeevandas et al., 2019). At the same time, environmentally friendly management has a significant influence on ecosystem sustainability, with stakeholder demands, resources, knowledge, and product uniqueness being determining factors for its success (Mekaniwati et al., 2023). When companies want to have significant market influence, especially in the contemporary and future era, overcoming environmental obstacles becomes a necessity (Raharjo, 2019). Green marketing, similar to green marketing, underscores the ecological impact of marketing and its important role in environmental mitigation (Jones et al., 2008). Embracing ~~environmentally friendly~~environmentally-friendly innovation is an optimal way to increase profitability while maintaining economic competitiveness (Lazer, 1969). In addition, efforts to achieve business sustainability through environmentally friendly innovation have been catalyzed by environmentally friendly marketing principles (Costantini et al., 2017; Foerstl et al., 2020). Improving company performance is an important prerequisite for the effectiveness of marketing capabilities, the creation of mutual customer value, and market orientation in forming marketing strategies (Chen & Liu, 2018). The integration of three core interests, namely fair economic participation, environmental preservation, and social responsibility, in the decision-making process is the foundation of sustainable development (Purba et al., 2019). Accordingly, ~~these~~ the following hypotheses are proposed in this study:

H1: Implementing Market Orientation negatively impacts Sustainable Industry Performance (Economics).
H2: Market Orientation has a positive effect on Sustainable Industry Performance (Environment).
H3: Market Orientation positively influences Sustainable Industry Performance (Social).
H4: Market Orientation does not significantly affect the implementation of Green Marketing Mix.
H5: Implementing a Green Marketing Mix positively influences Sustainable Industry Performance (Economics).
H6: Implementing a Green Marketing Mix has a beneficial impact on Sustainable Industry Performance (Environment).
H7: Implementing a Green Marketing Mix ~~positively affects~~Positively Affects Sustainable Industry Performance (Social).
H8: The mediating effect of Implementing a Green Marketing Mix between Market Orientation and Sustainable Industry Performance (Economics) is not significant.
H9: The mediating effect of Implementing a Green Marketing Mix between Market Orientation and Sustainable Industry Performance (Environment) is not significant.

H10: The mediating effect of Implementing a Green Marketing Mix between Market Orientation and Sustainable Industry Performance (Social) is not significant.

3. Research Method

By amalgamating the issues, methodologies, frameworks, and models synthesized and refined in the ongoing research, the author endeavors to yield outcomes in environmental-focused marketing as formulated through the literature review in the preceding section (second section). This aids in delineating avenues to enhance a company's competitive edge through environmentally oriented marketing strategies that contribute to achieving sustainable development objectives, serving as the foundation for research material. The subsequent section comprises results and evaluations, encompassing a comprehensive discourse on the research findings. Prior to testing, ensuring the suggested theoretical framework's integrity concerning validity and reliability is imperative. Employing a quantitative research design, this study utilizes a questionnaire disseminated to 238 respondents from small and medium-sized enterprises (SMEs) to gather data. Subsequently, the data undergoes examination through partial least squares structural equation modeling. With three latent variables/dimensions and ten indicators, the research aims to explore how the interplay between Marketing Orientation (MO) and Green Marketing Mix (GMM) influences the long-term sustainability of the SME sector in Central Java Island, Indonesia. Quantitative methods facilitate the resolution of specific issues tied to clearly defined occurrences. Data analysis is conducted using Smart PLS version 4.9.5 software.

4. Results

Each item within every variable exhibits a positive loading value exceeding 0.50 and a p-value below 0.05, indicating their capability to elucidate associated dimensions or variables. Items not considered in the analysis due to their loading value falling below 0.05 are omitted from tables 1.2 and 3 in the appendix as they hold no significance.

Table 1. Path coefficient values, AVE and Cronbach's Alpha

Construct	Path Coefficient	t-value	p-value	Average Variable Extracted (AVE)	Cronbach's Alpha	Composite Reliability	VIF
Market Orientation	-	-	-	0.57	0.63	0.80	-
Customer Orientation	0.75	18.06	0.000	0.69	0.55	0.82	-
Competitor Orientation	0.72	16.45	0.000	0.60	0.35	0.75	-
Inter-function Coordination	0.80	16.46	0.000	0.51	0.68	0.80	-
Green Marketing Mix							
Green Product	0.07	1.29	0.098	0.52	0.70	0.81	1.629
Green Price	0.31	1.98	0.024	0.81	0.92	0.94	9.129
Green Place	0.12	1.85	0.032	0.62	0.79	0.87	3.334
Green Promotion	0.17	1.27	0.103	0.71	0.87	0.91	8.655
Green Process	0.19	2.29	0.011	0.65	0.86	0.90	3.027
Green People	0.19	1.75	0.040	0.76	0.89	0.93	5.335
Green Physical Evidence	0.06	0.61	0.270	0.71	0.86	0.91	3.476
Sustainable Industry Performance (Economics)	-	-	-	0.54	0.79	0.85	-
Sustainable Industry Performance (Environment)	-	-	-	0.70	0.78	0.87	-
Sustainable Industry Performance (Social)	-	-	-	0.61	0.78	0.86	-

Almost all dimensions consisting of the second order of each variable show path coefficient values exceeding 0.50 and p values below 0.05, which indicates an effective explanation of the related latent variables. In the case of the Environmentally Friendly Marketing Mix Implementation variable, three indicator variables, namely Environmentally Friendly Products, Environmentally Friendly Promotion, and Environmentally Friendly Physical Evidence~~,~~ have p values above 0.05, thus making these variables statistically insignificant.

The second-order dimensions ~~as well as the primary latent variable~~, as well as the primary latent variable, all demonstrate AVE values surpassing or nearing 0.50. This indicates that these dimensions or primary latent variables satisfy the construct validity criteria. The majority of dimensions constituting the second-order and primary latent variables exhibit Composite Reliability values exceeding 0.70. This indicates that these dimensions or primary latent variables have fulfilled the construct reliability criteria. Lastly, the formative indicators of the Implementing Green Marketing Mix variable all display VIF values below 10, signifying the absence of multicollinearity among these indicators.

The findings of the endogenous latent variable analysis in Table 2 show that the Implementation of Market Orientation and the Implementation of an Environmentally Friendly Marketing Mix show weak predictive power. In addition, Sustainable Industrial Performance in the Economic, Environmental and Social dimensions shows moderate to strong R2 values, which indicates that there is a significant proportion of variance that can be explained by the model. Finally, the Q2 value for the Sustainable Industrial Performance variable shows acceptable predictive relevance, implying the model's ability ~~to accurately predict sustainability outcomes~~ outcomes to predict sustainability outcomes accurately. Even though the implementation of an environmentally friendly marketing mix has a minimal impact on sustainable industrial performance in the economic sector, it has a significant impact on the environmental and social dimensions, as indicated by the fairly large *f*2 value.

Table 2. Coefficient of Determination (R2) and Predictive Relevance (Q2)

Endogenous Latent Variables	f^2	R^2	Q^2
Implementation of Market Orientation	0.00		
Implementing Green Marketing Mix		0.00	0.01
Sustainable Industry Performance (Economics)		0.57	0.29
Sustainable Industry Performance (Environment)		0.53	0.36
Sustainable Industry Performance (Social)		0.76	0.46
Implementing Green Marketing Mix		0.00	0.01
Sustainable Industry Performance (Economics)		0.57	0.29
Implementation of Market Orientation	0.05		
Implementing Green Marketing Mix	1.28		
Sustainable Industry Performance (Environment)		0.53	0.36
Implementation of Market Orientation	0.05		
Implementing Green Marketing Mix	1.05		
Sustainable Industry Performance (Social)		0.76	0.46
Implementation of Market Orientation	0.18		
Implementing Green Marketing Mix	2.96		

The findings in Table 3 illustrate the relationship between Market Orientation and Sustainable Industrial Performance in the economic, environmental, and social dimensions. Market Orientation is positively correlated with Environmental and Social Performance, indicating its influence in promoting sustainability. However, this is negatively correlated with Economic Performance. Sustainable Industrial Performance shows a strong positive correlation between its dimensions, indicating a cohesive relationship between economic, environmental, and social aspects. These results suggest that although Market Orientation may have a positive impact on environmental and social sustainability, its impact on the economic performance of the batik industry may not be as pronounced.

Table 3. Second Order Fornell-Lacker

Variable	Market Orientation	Sustainable Industry Performance (Economics)	Sustainable Industry Performance (Environment)	Sustainable Industry Performance (Social)
Market Orientation	0.578			
Sustainable Industry Performance (Economics)	-0.109	0.737		
Sustainable Industry Performance (Environment)	0.193	0.674	0.836	
Sustainable Industry Performance (Social)	0.255	0.638	0.757	0.780

The hypothesis testing revealed that the Implementation of Market Orientation influences Sustainable Industry Performance (Economics) significantly (p-value = 0.00 < 0.05) (Table 4). Therefore, the first hypothesis is accepted, indicating that implementing Market Orientation negatively impacts Sustainable Industry Performance (Economics). The findings of this research are consistent with previous research exploring the relationship between Market Orientation and Sustainable Industrial Performance. Previous research has highlighted the importance of Market Orientation in driving organizational performance, including its impact on economic, environmental, and social dimensions. For example, Udriyah et al. (2019) research emphasizes the positive influence of Market Orientation on company performance, especially in terms of market responsiveness and competitiveness. Similarly, Tajeddini ~~&~~ and Ratten (2020) found that Market Orientation was associated with increased business performance and customer satisfaction.

The Implementation of Market Orientation positively influences Sustainable Industry Performance (Environment) significantly (p-value = 0.00 < 0.05). Hence, the second hypothesis is accepted, demonstrating that Market Orientation has a positive effect on Sustainable Industry Performance (Environment). Furthermore, the positive influence of Market Orientation on Sustainable Industrial Performance (Environmental and Social) is in line with the principles of sustainable development and corporate social responsibility (CSR). The Implementation of Market Orientation positively affects Sustainable Industry Performance (Social) significantly (p-value = 0.00 < 0.05). Consequently, the third hypothesis is accepted, highlighting the positive impact of Market Orientation on Sustainable Industry Performance (Social). Previous research in ~~the fields of~~ sustainability and marketing has underscored the role of Market Orientation in promoting environmentally and socially responsible business practices. For example, Tjahjadi et al. (2020) highlight the importance of Market Orientation in driving environmentally friendly product innovation and meeting consumer demand for environmentally friendly products. Likewise, Alhakimi ~~&~~ and Mahmoud (2020) found that Market Orientation had a positive effect on a company's responsiveness to social issues.

The Implementation of Market Orientation does not significantly influence the implementation of Green Marketing Mix (p-value = 0.27 > 0.05). Thus, the fourth hypothesis is rejected, suggesting no significant effect of Market Orientation on the implementation ~~of~~ the Green Marketing Mix. However, the lack of significant influence of Market Orientation on the implementation of the Environmentally Friendly Marketing Mix observed in this study is different from several previous studies. Research by Keszey

(2020) states a positive relationship between Market Orientation and ~~the adoption of~~adopting environmentally friendly marketing practices. For example, Danso et al. (2019) found that Market Orientation had a positive effect on a company's environmental marketing strategy. This difference may be caused by contextual factors specific to the batik industry.

Table 4. Hypothesis testing results

Hypothesis		β	Standard Error	t-value	p-value	Conclusion
H1	MO → SIP Eco	-0.15	0.05	3.12	0.001	Accepted
H2	MO → SIP Env	0.15	0.05	3.33	0.000	Accepted
H3	MO → SIP Soc	0.21	0.04	4.92	0.000	Accepted
H4	MO → GMM	0.06	0.09	0.62	0.268	Rejected
H5	GMM → SIP Eco	0.75	0.03	26.03	0.000	Accepted
H6	GMM → SIP Env	0.70	0.04	16.86	0.000	Accepted
H7	GMM → SIP Soc	0.84	0.02	35.48	0.000	Accepted
H8	MO → GMM → SIP Eco	0.04	0.07	0.61	0.270	Rejected
H9	MO → GMM → SIP Env	0.04	0.07	0.62	0.269	Rejected
H10	MO → GMM → SIP Soc	0.05	0.08	0.62	0.269	Rejected

The Implementation of a Green Marketing Mix significantly affects Sustainable Industry Performance (Economics) (p-value = 0.00 < 0.05). Consequently, the fifth hypothesis is accepted, indicating a positive influence of Implementing Green Marketing Mix on Sustainable Industry Performance (Economics). Moreover, the Implementation of Green Marketing Mix significantly influences Sustainable Industry Performance (Environment) (p-value = 0.03 < 0.05). Therefore, the sixth hypothesis is accepted, illustrating ~~a significant effect of Implementing~~ the significant effect of Implementing a Green Marketing Mix on Sustainable Industry Performance (Environment). In addition, the Implementation of a Green Marketing Mix significantly influences Sustainable Industry Performance (Social) (p-value = 0.00 < 0.05). Thus, the seventh hypothesis is accepted, indicating a positive effect between Implementing Green Marketing Mix and Sustainable Industry Performance (Social). The findings regarding the significant influence of the Implementation of an Environmentally Friendly Marketing Mix on Sustainable Industrial Performance echo previous research in the field of sustainable marketing. A number of studies have highlighted the positive impact of green marketing strategies on various dimensions of business performance. For example, Liao et al. (2020) emphasize the economic, ~~environment~~ environmental, and social benefits of green marketing, suggesting that green products can attract premium prices and increase brand loyalty. Similarly, Gelderman et al. (2021) found that green marketing initiatives contributed to improved environmental performance and customer perceptions.

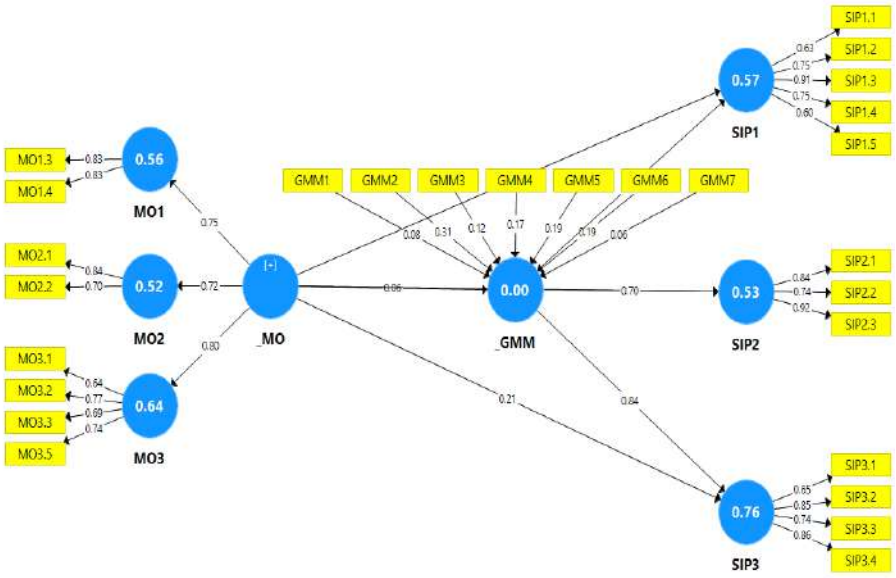

Figure 1. SEM PLS Result

The mediating effect of Implementing ~~Green Marketing Mix between~~ a Green Marketing Mix between the Implementation of Market Orientation and Sustainable Industry Performance (Economics) is not significant (p-value = 0.270 > 0.05). Consequently, the eighth hypothesis is rejected, suggesting no significant mediation effect. The mediating effect of Implementing ~~Green Marketing Mix between~~ a Green Marketing Mix between the Implementation of Market Orientation and Sustainable Industry Performance (Environment) is not significant (p-value = 0.269 > 0.05). Hence, the ninth hypothesis is rejected, indicating no significant mediation effect. The mediating effect of Implementing ~~Green Marketing Mix between~~ a Green Marketing Mix between the Implementation of Market Orientation and Sustainable Industry Performance (Social) is not significant (p-value = 0.269 > 0.05). Therefore, the tenth hypothesis is rejected, suggesting no significant mediation effect at an error level of 5%. Previous research has demonstrated the potential mediating role of green marketing practices in the relationship between Market Orientation and sustainability outcomes. Studies conducted by Abbas et al. (2019) and Papadas et al. (2019) have highlighted the positive impact of green marketing initiatives on a variety of organizational outcomes, including economic, environmental, and social performance. These findings indicate that environmentally friendly marketing can act as a mediator between Market Orientation and Sustainable Industrial Performance. However, the findings of this research indicate that the mediating effect of Implementing an Environmentally Friendly Marketing Mix between Market Orientation and Sustainable Industrial Performance (Economic, Environmental and Social) is not statistically significant in the context of the batik industry. This is different from the research of Guo et al. (2020), which shows that there are deviations from the expected mediating role of environmentally friendly marketing practices. This gap underscores the importance of considering industry-specific factors and contextual nuances in understanding the relationship between Market Orientation, Green Marketing Mix, and sustainability outcomes.

5. Conclusion

This study concludes that there is a significant relationship between Market Orientation, Environmentally Friendly Marketing Mix, and Sustainable Industrial Performance on economic, environmental and social dimensions in the batik industry. Even though Market Orientation has a negative impact on Economic Performance, Market Orientation has a positive impact on Environmental and Social Performance. On the other hand, the Implementation of an Environmentally Friendly Marketing Mix has

a positive influence on all dimensions of Sustainable Industrial Performance~~,~~ and highlights its role in driving overall industrial sustainability.

Theoretically, this study underscores the importance of integrating environmental considerations into marketing strategies and business operations to improve sustainability outcomes. This emphasizes the need for the business world to adopt a holistic approach that combines Market Orientation and Environmentally Friendly Marketing Mix strategies to achieve sustainable industrial performance. Practically, these findings provide valuable insights for stakeholders in the batik industry~~,~~ and guide strategic decision-making processes. By aligning business practices with consumers' growing preferences for environmentally friendly products, companies can improve their sustainability performance across economic, environmental, and social dimensions.

The limitation of this research is that it is limited to small and ~~medium scale batik companies~~medium-scale batik companies, which limits the generalizability of these findings. Future research could overcome these limitations by expanding the scope of the study to cover a wider geographic area and a more diverse range of industry players.

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Gmail

Aang Munawar <amunawar.ibik@gmail.com>

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Dear editor,

Below we have changed our manuscript to suit the scope of the journal "International Journal of Data and Network Science".
Thus, we hope that our manuscript will be published soon in this edition.
Thank You

Regards,

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THE MEDIATING EFFECT OF SOCIAL MEDIA MARKETING IN THE MARKET ORIENTATION AND BUSINESS PERFORMANCE RELATIONSHIP

Aang Munawar[1], Ani Mekaniwati[2], Abdul Thalib Bon[2], Iswandi Sukartaatmadja[1]
[1] Faculty of Business, Institut Bisnis dan Informatika Kesatuan, Bogor, Indonesia
[2] Faculty of Technology and Business Management, Universiti Tun Hussein Onn Malaysia

Abstract

This research aims to analyze the sustainability challenges in small and medium-scale enterprises in Indonesia, focusing on marketing orientation, social media marketing, and three domains of business performance, namely economic, social and environmental aspects. Data from 238 respondents in Pekalongan, Central Java Province, Indonesia, were analyzed using the SEM-PLS method. These findings support six hypotheses revealing the impact of marketing orientation on various aspects of business performance (economic/social/environmental) and the influence of social media marketing on economic, environmental, and social dimensions. The results have significant implications for SMEs in Indonesia. The findings highlight the need for improvement in sustainability practices, such as increasing alignment between marketing orientation and social media marketing strategies.

Keywords: Marketing Orientation, Social Media Marketing, Economics, Business Performance, MSMEs

1. Introduction

The contemporary business landscape is facing increasing pressure to positively respond to environmental challenges. Awareness of environmental issues has significantly risen among consumers, who are now more inclined to choose environmentally friendly products and services. Research by Sun et al. (2021) highlights the importance of sustainable responses from companies to environmental issues to meet the expectations of increasingly environmentally conscious consumers. However, companies' efforts to market products as sustainable and environmentally friendly are not always well-received by consumers. Critics highlight a lack of credibility and reliability in advertising, especially when it comes to claims about environmental standards.

Atkinson & Rosenthal (2014) and Göçer & Sevil (2017) state that deficiencies in communication about corporate environmental practices can reduce consumer trust and hinder participation in environmentally responsible consumption. In facing the evolving dynamics of the market, businesses must be able to adapt and anticipate changes to remain competitive. Ali et al. (2020) emphasizes the importance of gaining a competitive advantage through strategic adaptation responsive to the market. In response, both academics and industry practitioners are increasingly focusing on improving market orientation capabilities. Research by Arief et al. (2020), Oerstl et al. (2020), and Murillo et al. (2021) highlights the need to focus on developing adaptive and responsive capabilities to changing market demands and preferences.

Although having significant potential benefits, small and medium-sized enterprises (SMEs) in developing countries often face a number of challenges that limit their ability to achieve sustainable operations. One major challenge is the high costs associated with sustainability practices. Schulze et al. (2022) highlight the important role of costs as a major barrier in SMEs' efforts to adopt sustainable practices. Additionally, a lack of skills and training is also a serious issue faced by many SMEs. Business owners may lack the knowledge or skills required to effectively implement sustainability practices. This can hinder their ability to identify innovative opportunities in operations or to manage necessary changes. Lack of access to training and educational resources can exacerbate this situation.

The absence of standard metrics for measuring sustainability also poses a challenge for SMEs. Without clear frameworks and measurable criteria, SMEs may struggle to objectively evaluate their sustainability performance. This can make it difficult to track progress, identify areas where improvements are needed, or compare performance with competitors or industry standards. Additionally, reluctance to adopt new technologies can also hinder SMEs' ability to achieve sustainable operations. Although technology often can help improve efficiency and reduce environmental impact, many SMEs may be hesitant to invest in new technology due to concerns about costs, implementation complexity, or uncertainty about outcomes. This can lead to a lag in the adoption of sustainable and innovative technology processes, as demonstrated by Kumar & Ghodeswar's (2015) research.

This study utilizes market orientation and social media marketing strategies to drive sustainable performance among SMEs, particularly in the textile sector. The objective of this research is to analyze the extent to which the relationship between market orientation and social media marketing enhances sustainable performance in the textile sector among small and medium-sized enterprises (SMEs) in Central Java Province, Indonesia.

2. Literature Review

Market uncertainty can encompass various unpredictable external factors, such as changes in customer preferences, shifts in industry trends, or unstable global economic conditions. In such situations, companies with a market-oriented approach, actively prioritizing understanding and responding to customer needs and preferences, tend to be better at introducing new products (Centobelli et al., 2019). Market orientation is a strategic approach where companies focus on deep understanding of customer needs and desires and strive to meet them better than competitors. The importance of effective marketing is emphasized as a key to achieving long-term business success. This includes identifying customer needs, understanding the market well, and responding quickly to changes in the business environment (Taghvaee & Talebi, 2023). In the context of new product launches, strong market orientation can help companies reduce risks and increase success opportunities by ensuring that the introduced products align with changing market needs. In addition to focusing on customers, market orientation also considers external environmental factors. This includes considering factors such as economic conditions, industry competition, and government regulations that may influence a company's business strategy (Kirca et al., 2005).

Social media marketing emphasizes the ecological consequences of marketing activities and plays a significant role in addressing environmental issues (Lazer, 1969). Social media marketing involves organizational efforts to develop, promote, and sell environmentally friendly products (Day & Wensley, 1988; Jeevandas et al., 2019). This has a significant impact on ecosystem sustainability, with stakeholder demands, resources, knowledge, and product uniqueness being determining factors of its success (Mekaniwati et al., 2023). Companies that aim to have significant market influence, especially in contemporary and future eras, must address environmental barriers (Raharjo, 2019). Social media marketing underscores the ecological impact of marketing and its critical role in environmental mitigation (Jones et al., 2008). Embracing innovation is an optimal way to increase profitability while maintaining economic competitiveness (Lazer, 1969).

The principles of social media marketing have become catalysts for these efforts, enabling companies to build stronger relationships with customers and the general public while promoting sustainability values (Costantini et al., 2017; Foerstl et al., 2020). Improved company performance is a crucial prerequisite in this context. The effectiveness of marketing capabilities, co-creation of customer value, and market orientation all contribute to overall company performance. Social media marketing allows companies to interact directly with customers, gather feedback, and respond quickly to changes in market preferences and

demands (Chen & Liu, 2018). Integrating three core interests - fair economic participation, environmental preservation, and social responsibility - in decision-making processes also remains a primary focus in sustainable development (Purba et al., 2019). Thus, social media marketing not only serves as a tool to promote products and services but also as a platform to communicate a company's commitment to environmental and social sustainability.

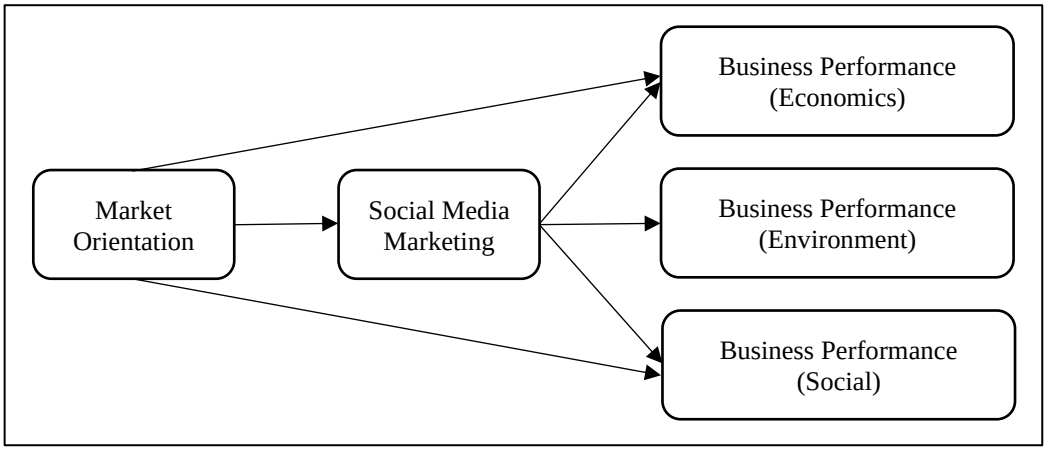

Figure 1. Conceptual Framework

H1. Market orientation has a positive and significant effect on business performance (economic)
H2. Market orientation has a positive and significant effect on business performance (environment)
H3. Market orientation has a positive and significant effect on business performance (social)
H4. Market orientation has a positive and significant effect on social media marketing
H5. Social media marketing has a positive and significant effect on business performance (economic)
H6. Social media marketing has a positive and significant effect on business performance (environment)
H7. Social media marketing has a positive and significant effect on business performance (social)
H8. Social media marketing mediates the relationship between market orientation and business performance (economic)
H9. Social media marketing mediates the relationship between market orientation and business performance (environment)
H10. Social media marketing mediates the relationship between market orientation and business performance (social)

3. Research Method

This research employs a quantitative method to collect and analyze data. Data are gathered through the use of a Likert scale questionnaire ranging from 1 to 5 points, which is used to interpret respondents' answers. The sample size for this study consists of 238 Small and Medium Enterprises (SMEs) in Central Java, Indonesia. The use of a quantitative research design focuses on three latent variables or main dimensions: marketing orientation, social media marketing, and business performance in three areas, namely economic, social, and environmental. The aim of this research is to explore how the interaction between marketing orientation and social media marketing influences the business performance of SMEs in Central Java, Indonesia, particularly in economic, social, and environmental aspects. Data

collected from respondents are analyzed using Partial Least Squares Structural Equation Modeling (PLS SEM), which is a statistical method useful for testing conceptual models involving latent variables. Data analysis is conducted using Smart PLS software version 4.9.5.

4. Result

In construct analysis, each item in each variable shows a positive loading value exceeding 0.50 and a p value below 0.05 which indicates its ability to explain the related dimensions or variables. Items that were not considered in the analysis because their loading values were below 0.05 were excluded from Tables 1, 2, and 3 because they did not have significance.

Table 1. Path coefficient values, AVE and Cronbach's Alpha

Construct	Path Coefficient	t-value	P-value	AVE	Cronbach's Alpha	Composite Reliability	VIF
Market Orientation	-	-	-	0.57	0.63	0.80	-
Customer Orientation	0.75	18.06	0.000	0.69	0.55	0.82	-
Competitor Orientation	0.72	16.45	0.000	0.60	0.35	0.75	-
Inter-function Coordination	0.80	16.46	0.000	0.51	0.68	0.80	-
Social Media Marketing	-	-	-	0.58	0.71	0.83	-
Reach	0.07	1.29	0.098	0.52	0.70	0.81	1.629
Retention Rate	0.31	1.98	0.024	0.81	0.92	0.94	9.129
Brand Sentiment	0.12	1.85	0.032	0.62	0.79	0.87	3.334
User Participation	0.17	1.27	0.103	0.71	0.87	0.91	8.655
Level of Influence	0.19	2.29	0.011	0.65	0.86	0.90	3.027
Target Level	0.19	1.75	0.040	0.76	0.89	0.93	5.335
Level of Responsibility	0.06	0.61	0.270	0.71	0.86	0.91	3.476
Business Performance (Economics)	-	-	-	0.54	0.79	0.85	-
Business Performance (Environment)	-	-	-	0.70	0.78	0.87	-
Business Performance (Social)	-	-	-	0.61	0.78	0.86	-

Almost all dimensions consisting of second-order variables show path coefficient values exceeding 0.50 and p-values below 0.05, indicating effective explanation of related latent variables. For the social media marketing variable, the three indicator variables, namely reach, user participation, and level of responsiveness, have p-values above 0.05, making these variables statistically insignificant. Second-order dimensions, as well as main latent variables, all show AVE values exceeding or approaching 0.50. This indicates that these primary latent dimensions or variables meet the criteria for construct validity. The majority of dimensions composing second-order and primary latent variables show Composite Reliability values exceeding 0.70. This indicates that these primary latent dimensions or variables meet the criteria for construct reliability. Finally, all formative indicator variables of social media marketing display VIF values below 10, indicating no multicollinearity among these indicators. The findings of the analysis of endogenous latent variables in Table 2 indicate that the application of market orientation and social media marketing shows weak predictive power. Additionally, business performance in economic, environmental, and social dimensions shows moderate to strong R^2 values, indicating that a significant proportion of variance can be explained by the model. Lastly, the Q^2 values for business performancevariables indicate acceptable predictive relevance, implying the model's ability to accurately predict sustainability outcomes. Although social media marketing has minimal impact on business performancein the economic domain, it has a significant impact on environmental and social dimensions, as evidenced by relatively large f^2 values.

Table 2. Coefficient of determination (R^2) and Predictive Relevance (Q^2)

Endogenous Latent Variables	f^2	R^2	Q^2
Implementation of Market Orientation	0,00		
Social Media Marketing		0,00	0,01
Business Performance (Economics)		0,57	0,29
Business Performance (Environment)		0,53	0,36
Business Performance (Social)		0,76	0,46
Social Media Marketing		0,00	0,01
Business Performance (Economics)		0,57	0,29
Implementation of Market Orientation	0,05		
Social Media Marketing	1.28		
Business Performance (Environment)		0,53	0,36
Implementation of Market Orientation	0,05		
Social Media Marketing	1.05		
Business Performance (Social)		0,76	0,46
Implementation of Market Orientation	0,18		
Social Media Marketing	2.96		

The findings in Table 3 depict the relationship between market orientation and business performance in the economic, environmental, and social dimensions. Market orientation correlates positively with environmental and social performance, indicating its influence in promoting sustainability. However, it correlates negatively with economic performance. Business performance shows a strong positive correlation among its dimensions, indicating a cohesive relationship between economic, environmental, and social aspects. The results of this study suggest that although market orientation has a positive impact on environmental and social sustainability, its impact on the economic performance of the batik industry may not be significant.

Table 3. Second Order Fornell-Lacker

Variable	Market Orientation	Business Performance (Economics)	Business Performance (Environment)	Business Performance (Social)
Market Orientation	0.578			
Business Performance (Economics)	-0.109	0.737		
Business Performance (Environment)	0.193	0.674	0.836	
Business Performance (Social)	0.255	0.638	0.757	0.780

Hypothesis testing revealed that the implementation of market orientation significantly affects business performance (economic) (p-value = 0.00 < 0.05) (Table 4). Therefore, the first hypothesis is accepted, indicating that the implementation of market orientation positively impacts business performance (economic). This research finding is consistent with Udriyah et al. (2019), who explored the relationship between market orientation and business performance , including its impact on economic, environmental, and social dimensions, especially in terms of market responsiveness and competitiveness. Similarly, Tajeddini & Ratten (2020) found that market orientation is associated with improved business performance and customer satisfaction.

The implementation of market orientation significantly affects business performance (environment) positively (p-value = 0.00 < 0.05). Thus, the second hypothesis is accepted, indicating that market orientation positively influences business performance (environment). Furthermore, the positive influence of market orientation on business performance (environment) aligns with the principles of sustainable development and corporate social responsibility (CSR). The implementation of market orientation significantly affects business performance (social) positively (p-value = 0.00 < 0.05). As a result, the third hypothesis is accepted, highlighting the positive impact of market orientation on business performance (social). Tjahjadi et al. (2020) research in sustainability and marketing has underscored the role of market orientation in promoting environmentally and socially responsible business practices. Market orientation drives innovation in environmentally friendly products and meets consumer demand for environmentally friendly products. Similarly, Alhakimi & Mahmoud (2020) found that market orientation positively influences a company's responsiveness to social issues.

The implementation of market orientation does not significantly affect the implementation of social media marketing (p-value = 0.27 > 0.05). Thus, the fourth hypothesis is rejected, stating that market orientation significantly affects social media marketing. However, the lack of significant influence of market orientation on social media marketing observed in this study differs from some previous research. Keszey (2020) stated a positive relationship between market orientation and the implementation of social media marketing practices. Additionally, Danso et al. (2019) found that market orientation positively influences social media marketing strategy. This difference may be due to specific contextual factors in the batik industry in Indonesia.

The implementation of social media marketing significantly affects business performance (economic) (p-value = 0.00 < 0.05). Thus, the fifth hypothesis is accepted, indicating a positive influence of social media marketing implementation on business performance (economic). Additionally, social media marketing significantly affects business performance (environment) (p-value = 0.03 < 0.05). Therefore, the sixth hypothesis is accepted, illustrating the significant influence of social media marketing on business performance (environment). Furthermore, social media marketing significantly affects business performance (social) (p-value = 0.00 < 0.05). Thus, the seventh hypothesis is accepted, indicating a positive influence of social media marketing on business performance (social). Findings regarding the significant influence of social media marketing on business performance echo Liao et al. (2020), who emphasize the economic, environmental, and social benefits of social media marketing, indicating that environmentally friendly products can attract premium prices and increase brand loyalty. Similarly, Gelderman et al. (2021) found that social media marketing initiatives contribute to improving environmental performance and customer perception.

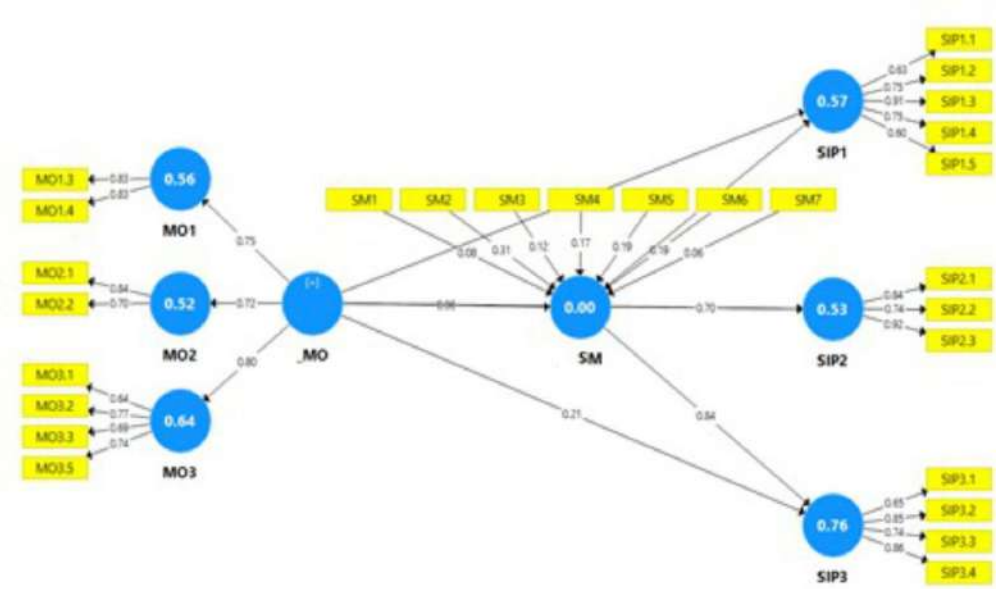

Figure 1. SEM PLS Result

Table 4. Hypothesis testing results

Hypothesis		β	Standard Error	t-value	p-value	Conclusion
H1	MO → SIP Eco	-0.15	0.05	3.12	0.001	Accepted
H2	MO → SIP Env	0.15	0.05	3.33	0.000	Accepted
H3	MO → SIP Soc	0.21	0.04	4.92	0.000	Accepted
H4	MO → SM	0.06	0.09	0.62	0.268	Rejected
H5	SM → SIP Eco	0.75	0.03	26.03	0.000	Accepted
H6	SM → SIP Env	0.70	0.04	16.86	0.000	Accepted
H7	SM → SIP Soc	0.84	0.02	35.48	0.000	Accepted
H8	MO → SM → SIP Eco	0.04	0.07	0.61	0.270	Rejected
H9	MO → SM → SIP Env	0.04	0.07	0.62	0.269	Rejected
H10	MO → SM → SIP Soc	0.05	0.08	0.62	0.269	Rejected

The mediating effect of social media marketing between the implementation of market orientation and business performance (economic) is not significant (p-value = 0.270 > 0.05). As a result, the eighth hypothesis is rejected, indicating no significant mediating effect. The mediating effect of social media marketing between the implementation of market orientation and business performance (environment) is not significant (p-value = 0.269 > 0.05). Therefore, the ninth hypothesis is rejected, indicating no significant mediating effect. The mediating effect of social media marketing between the implementation of market orientation and business performance (social) is not significant (p-value = 0.269 > 0.05). Therefore, the tenth hypothesis is rejected, stating no significant mediating effect at the 5% error level. Previous research has shown the potential role of social media marketing practices as a mediator in the relationship between market orientation and sustainability outcomes. Studies conducted by Abbas et al. (2019) and Papadas et al. (2019) highlight the positive impact of social media marketing initiatives on various organizational outcomes, including economic, environmental, and social performance. These findings suggest that social media marketing can serve as a mediator between market orientation and business performance . However, the findings of this study indicate that the mediating effect of social media marketing between market orientation and business performance (economic, environmental, and social) is not statistically significant in the context of the batik industry in Indonesia. This differs from the research by Guo et al.

(2020), which showed a deviation from the expected mediating role of social media marketing practices. This gap underscores the importance of considering industry-specific factors and contextual nuances in understanding the relationship between market orientation, social media marketing, and sustainability outcomes.

5. Conclusion

This study concludes that there is a significant relationship between market orientation, social media marketing, and business performance across economic, environmental, and social dimensions in the batik industry in Indonesia. Although market orientation negatively impacts economic performance, it positively influences environmental and social performance. On the other hand, the implementation of social media marketing has a positive influence on all dimensions of business performance, highlighting its role in driving industrial sustainability. Theoretically, this research underscores the importance of integrating environmental considerations into marketing strategies and business operations to enhance sustainability outcomes. It emphasizes the need for businesses to adopt a holistic approach that combines market orientation and social media marketing strategies to achieve business performance. Practically, these findings provide valuable insights for stakeholders in the batik industry and guide strategic decision-making processes. By aligning business practices with the increasing consumer preferences for products, companies can enhance sustainability performance across economic, environmental, and social dimensions. The limitation of this research is its focus on small and medium-scale batik companies, which limits the generalizability of these findings. Future research could address this limitation by expanding the scope of the study to include a wider geographical area and more diverse industry players.

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THE MEDIATING EFFECT OF SOCIAL MEDIA MARKETING IN THE MARKET ORIENTATION AND BUSINESS PERFORMANCE RELATIONSHIP

Aang Munawar[1], Ani Mekaniwati[2], Abdul Thalib Bon[2], Iswandi Sukartaatmadja[1]
[1] Faculty of Business, Institut Bisnis dan Informatika Kesatuan, Bogor, Indonesia
[2] Faculty of Technology and Business Management, Universiti Tun Hussein Onn Malaysia

Abstract

This research aims to analyze the sustainability challenges in small and medium-scale enterprises in Indonesia, focusing on marketing orientation, social media marketing, and three domains of business performance, namely economic, social and environmental aspects. Data from 238 respondents in Pekalongan, Central Java Province, Indonesia, were analyzed using the SEM-PLS method. These findings support six hypotheses revealing the impact of marketing orientation on various aspects of business performance (economic/social/environmental) and the influence of social media marketing on economic, environmental, and social dimensions. The results have significant implications for SMEs in Indonesia. The findings highlight the need for improvement in sustainability practices, such as increasing alignment between marketing orientation and social media marketing strategies.

Keywords: Marketing Orientation, Social Media Marketing, Economics, Business Performance, MSMEs

1. Introduction

The contemporary business landscape is facing increasing pressure to positively respond to environmental challenges. Awareness of environmental issues has significantly risen among consumers, who are now more inclined to choose environmentally friendly products and services. Research by Sun et al. (2021) highlights the importance of sustainable responses from companies to environmental issues to meet the expectations of increasingly environmentally conscious consumers. However, companies' efforts to market products as sustainable and environmentally friendly are not always well-received by consumers. Critics highlight a lack of credibility and reliability in advertising, especially when it comes to claims about environmental standards.

Atkinson & Rosenthal (2014) and Göçer & Sevil (2017) state that deficiencies in communication about corporate environmental practices can reduce consumer trust and hinder participation in environmentally responsible consumption. In facing the evolving dynamics of the market, businesses must be able to adapt and anticipate changes to remain competitive. Ali et al. (2020) emphasizes the importance of gaining a competitive advantage through strategic adaptation responsive to the market. In response, both academics and industry practitioners are increasingly focusing on improving market orientation capabilities. Research by Arief et al. (2020), Oerstl et al. (2020), and Murillo et al. (2021) highlights the need to focus on developing adaptive and responsive capabilities to changing market demands and preferences.

Although having significant potential benefits, small and medium-sized enterprises (SMEs) in developing countries often face a number of challenges that limit their ability to achieve sustainable operations. One major challenge is the high costs associated with sustainability practices. Schulze et al. (2022) highlight the important role of costs as a major barrier in SMEs' efforts to adopt sustainable practices. Additionally, a lack of skills and training is also a serious issue faced by many SMEs. Business owners may lack the knowledge or skills required to effectively implement sustainability practices. This can hinder their ability to identify innovative opportunities in operations or to manage necessary changes. Lack of access to training and educational resources can exacerbate this situation.

The absence of standard metrics for measuring sustainability also poses a challenge for SMEs. Without clear frameworks and measurable criteria, SMEs may struggle to objectively evaluate their sustainability performance. This can make it difficult to track progress, identify areas where improvements are needed, or compare performance with competitors or industry standards. Additionally, reluctance to adopt new technologies can also hinder SMEs' ability to achieve sustainable operations. Although technology often can help improve efficiency and reduce environmental impact, many SMEs may be hesitant to invest in new technology due to concerns about costs, implementation complexity, or uncertainty about outcomes. This can lead to a lag in the adoption of sustainable and innovative technology processes, as demonstrated by Kumar & Ghodeswar's (2015) research.

This study utilizes market orientation and social media marketing strategies to drive sustainable performance among SMEs, particularly in the textile sector. The objective of this research is to analyze the extent to which the relationship between market orientation and social media marketing enhances sustainable performance in the textile sector among small and medium-sized enterprises (SMEs) in Central Java Province, Indonesia.

2. Literature Review

Market uncertainty can encompass various unpredictable external factors, such as changes in customer preferences, shifts in industry trends, or unstable global economic conditions. In such situations, companies with a market-oriented approach, actively prioritizing understanding and responding to customer needs and preferences, tend to be better at introducing new products (Centobelli et al., 2019). Market orientation is a strategic approach where companies focus on deep understanding of customer needs and desires and strive to meet them better than competitors. The importance of effective marketing is emphasized as a key to achieving long-term business success. This includes identifying customer needs, understanding the market well, and responding quickly to changes in the business environment (Taghvaee & Talebi, 2023). In the context of new product launches, strong market orientation can help companies reduce risks and increase success opportunities by ensuring that the introduced products align with changing market needs. In addition to focusing on customers, market orientation also considers external environmental factors. This includes considering factors such as economic conditions, industry competition, and government regulations that may influence a company's business strategy (Kirca et al., 2005).

Social media marketing emphasizes the ecological consequences of marketing activities and plays a significant role in addressing environmental issues (Lazer, 1969). Social media marketing involves organizational efforts to develop, promote, and sell environmentally friendly products (Day & Wensley, 1988; Jeevandas et al., 2019). This has a significant impact on ecosystem sustainability, with stakeholder demands, resources, knowledge, and product uniqueness being determining factors of its success (Mekaniwati et al., 2023). Companies that aim to have significant market influence, especially in contemporary and future eras, must address environmental barriers (Raharjo, 2019). Social media marketing underscores the ecological impact of marketing and its critical role in environmental mitigation (Jones et al., 2008). Embracing innovation is an optimal way to increase profitability while maintaining economic competitiveness (Lazer, 1969).

The principles of social media marketing have become catalysts for these efforts, enabling companies to build stronger relationships with customers and the general public while promoting sustainability values (Costantini et al., 2017; Foerstl et al., 2020). Improved company performance is a crucial prerequisite in this context. The effectiveness of marketing capabilities, co-creation of customer value, and market orientation all contribute to overall company performance. Social media marketing allows companies to interact directly with customers, gather feedback, and respond quickly to changes in market preferences and

demands (Chen & Liu, 2018). Integrating three core interests - fair economic participation, environmental preservation, and social responsibility - in decision-making processes also remains a primary focus in sustainable development (Purba et al., 2019). Thus, social media marketing not only serves as a tool to promote products and services but also as a platform to communicate a company's commitment to environmental and social sustainability.

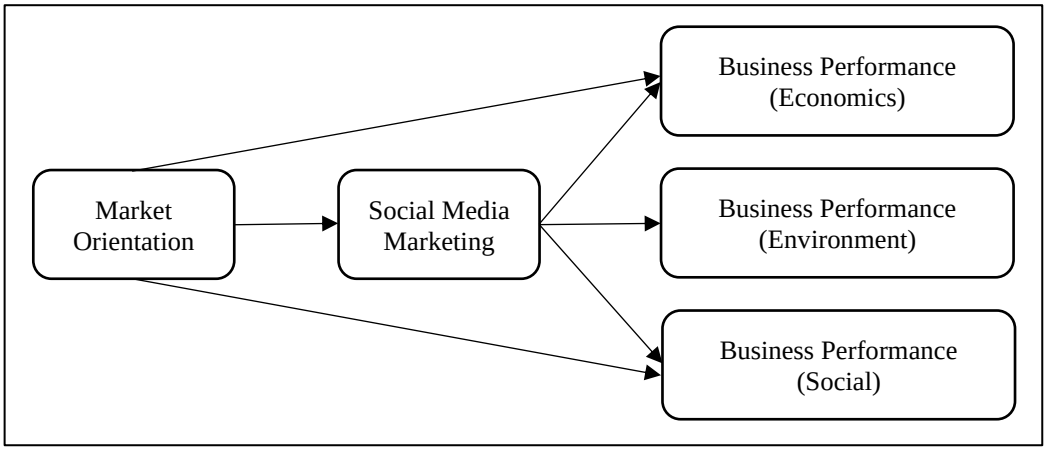

Figure 1. Conceptual Framework

H1. Market orientation has a positive and significant effect on business performance (economic)
H2. Market orientation has a positive and significant effect on business performance (environment)
H3. Market orientation has a positive and significant effect on business performance (social)
H4. Market orientation has a positive and significant effect on social media marketing
H5. Social media marketing has a positive and significant effect on business performance (economic)
H6. Social media marketing has a positive and significant effect on business performance (environment)
H7. Social media marketing has a positive and significant effect on business performance (social)
H8. Social media marketing mediates the relationship between market orientation and business performance (economic)
H9. Social media marketing mediates the relationship between market orientation and business performance (environment)
H10. Social media marketing mediates the relationship between market orientation and business performance (social)

3. Research Method

This research employs a quantitative method to collect and analyze data. Data are gathered through the use of a Likert scale questionnaire ranging from 1 to 5 points, which is used to interpret respondents' answers. The sample size for this study consists of 238 Small and Medium Enterprises (SMEs) in Central Java, Indonesia. The use of a quantitative research design focuses on three latent variables or main dimensions: marketing orientation, social media marketing, and business performance in three areas, namely economic, social, and environmental. The aim of this research is to explore how the interaction between marketing orientation and social media marketing influences the business performance of SMEs in Central Java, Indonesia, particularly in economic, social, and environmental aspects. Data

collected from respondents are analyzed using Partial Least Squares Structural Equation Modeling (PLS SEM), which is a statistical method useful for testing conceptual models involving latent variables. Data analysis is conducted using Smart PLS software version 4.9.5.

4. Result

In construct analysis, each item in each variable shows a positive loading value exceeding 0.50 and a p value below 0.05 which indicates its ability to explain the related dimensions or variables. Items that were not considered in the analysis because their loading values were below 0.05 were excluded from Tables 1, 2, and 3 because they did not have significance.

Table 1. Path coefficient values, AVE and Cronbach's Alpha

Construct	Path Coefficient	t-value	P-value	AVE	Cronbach's Alpha	Composite Reliability	VIF
Market Orientation	-	-	-	0.57	0.63	0.80	-
Customer Orientation	0.75	18.06	0.000	0.69	0.55	0.82	-
Competitor Orientation	0.72	16.45	0.000	0.60	0.35	0.75	-
Inter-function Coordination	0.80	16.46	0.000	0.51	0.68	0.80	-
Social Media Marketing	-	-	-	0.58	0.71	0.83	-
Reach	0.07	1.29	0.098	0.52	0.70	0.81	1.629
Retention Rate	0.31	1.98	0.024	0.81	0.92	0.94	9.129
Brand Sentiment	0.12	1.85	0.032	0.62	0.79	0.87	3.334
User Participation	0.17	1.27	0.103	0.71	0.87	0.91	8.655
Level of Influence	0.19	2.29	0.011	0.65	0.86	0.90	3.027
Target Level	0.19	1.75	0.040	0.76	0.89	0.93	5.335
Level of Responsibility	0.06	0.61	0.270	0.71	0.86	0.91	3.476
Business Performance (Economics)	-	-	-	0.54	0.79	0.85	-
Business Performance (Environment)	-	-	-	0.70	0.78	0.87	-
Business Performance (Social)	-	-	-	0.61	0.78	0.86	-

Almost all dimensions consisting of second-order variables show path coefficient values exceeding 0.50 and p-values below 0.05, indicating effective explanation of related latent variables. For the social media marketing variable, the three indicator variables, namely reach, user participation, and level of responsiveness, have p-values above 0.05, making these variables statistically insignificant. Second-order dimensions, as well as main latent variables, all show AVE values exceeding or approaching 0.50. This indicates that these primary latent dimensions or variables meet the criteria for construct validity. The majority of dimensions composing second-order and primary latent variables show Composite Reliability values exceeding 0.70. This indicates that these primary latent dimensions or variables meet the criteria for construct reliability. Finally, all formative indicator variables of social media marketing display VIF values below 10, indicating no multicollinearity among these indicators. The findings of the analysis of endogenous latent variables in Table 2 indicate that the application of market orientation and social media marketing shows weak predictive power. Additionally, business performance in economic, environmental, and social dimensions shows moderate to strong R^2 values, indicating that a significant proportion of variance can be explained by the model. Lastly, the Q^2 values for business performancevariables indicate acceptable predictive relevance, implying the model's ability to accurately predict sustainability outcomes. Although social media marketing has minimal impact on business performancein the economic domain, it has a significant impact on environmental and social dimensions, as evidenced by relatively large f^2 values.

Table 2. Coefficient of determination (R^2) and Predictive Relevance (Q^2)

Endogenous Latent Variables	f^2	R^2	Q^2
Implementation of Market Orientation	0,00		
Social Media Marketing		0,00	0,01
Business Performance (Economics)		0,57	0,29
Business Performance (Environment)		0,53	0,36
Business Performance (Social)		0,76	0,46
Social Media Marketing		0,00	0,01
Business Performance (Economics)		0,57	0,29
Implementation of Market Orientation	0,05		
Social Media Marketing	1.28		
Business Performance (Environment)		0,53	0,36
Implementation of Market Orientation	0,05		
Social Media Marketing	1.05		
Business Performance (Social)		0,76	0,46
Implementation of Market Orientation	0,18		
Social Media Marketing	2.96		

The findings in Table 3 depict the relationship between market orientation and business performance in the economic, environmental, and social dimensions. Market orientation correlates positively with environmental and social performance, indicating its influence in promoting sustainability. However, it correlates negatively with economic performance. Business performance shows a strong positive correlation among its dimensions, indicating a cohesive relationship between economic, environmental, and social aspects. The results of this study suggest that although market orientation has a positive impact on environmental and social sustainability, its impact on the economic performance of the batik industry may not be significant.

Table 3. Second Order Fornell-Lacker

Variable	Market Orientation	Business Performance (Economics)	Business Performance (Environment)	Business Performance (Social)
Market Orientation	0.578			
Business Performance (Economics)	-0.109	0.737		
Business Performance (Environment)	0.193	0.674	0.836	
Business Performance (Social)	0.255	0.638	0.757	0.780

Hypothesis testing revealed that the implementation of market orientation significantly affects business performance (economic) (p-value = 0.00 < 0.05) (Table 4). Therefore, the first hypothesis is accepted, indicating that the implementation of market orientation positively impacts business performance (economic). This research finding is consistent with Udriyah et al. (2019), who explored the relationship between market orientation and business performance , including its impact on economic, environmental, and social dimensions, especially in terms of market responsiveness and competitiveness. Similarly, Tajeddini & Ratten (2020) found that market orientation is associated with improved business performance and customer satisfaction.

The implementation of market orientation significantly affects business performance (environment) positively (p-value = 0.00 < 0.05). Thus, the second hypothesis is accepted, indicating that market orientation positively influences business performance (environment). Furthermore, the positive influence of market orientation on business performance (environment) aligns with the principles of sustainable development and corporate social responsibility (CSR). The implementation of market orientation significantly affects business performance (social) positively (p-value = 0.00 < 0.05). As a result, the third hypothesis is accepted, highlighting the positive impact of market orientation on business performance (social). Tjahjadi et al. (2020) research in sustainability and marketing has underscored the role of market orientation in promoting environmentally and socially responsible business practices. Market orientation drives innovation in environmentally friendly products and meets consumer demand for environmentally friendly products. Similarly, Alhakimi & Mahmoud (2020) found that market orientation positively influences a company's responsiveness to social issues.

The implementation of market orientation does not significantly affect the implementation of social media marketing (p-value = 0.27 > 0.05). Thus, the fourth hypothesis is rejected, stating that market orientation significantly affects social media marketing. However, the lack of significant influence of market orientation on social media marketing observed in this study differs from some previous research. Keszey (2020) stated a positive relationship between market orientation and the implementation of social media marketing practices. Additionally, Danso et al. (2019) found that market orientation positively influences social media marketing strategy. This difference may be due to specific contextual factors in the batik industry in Indonesia.

The implementation of social media marketing significantly affects business performance (economic) (p-value = 0.00 < 0.05). Thus, the fifth hypothesis is accepted, indicating a positive influence of social media marketing implementation on business performance (economic). Additionally, social media marketing significantly affects business performance (environment) (p-value = 0.03 < 0.05). Therefore, the sixth hypothesis is accepted, illustrating the significant influence of social media marketing on business performance (environment). Furthermore, social media marketing significantly affects business performance (social) (p-value = 0.00 < 0.05). Thus, the seventh hypothesis is accepted, indicating a positive influence of social media marketing on business performance (social). Findings regarding the significant influence of social media marketing on business performance echo Liao et al. (2020), who emphasize the economic, environmental, and social benefits of social media marketing, indicating that environmentally friendly products can attract premium prices and increase brand loyalty. Similarly, Gelderman et al. (2021) found that social media marketing initiatives contribute to improving environmental performance and customer perception.

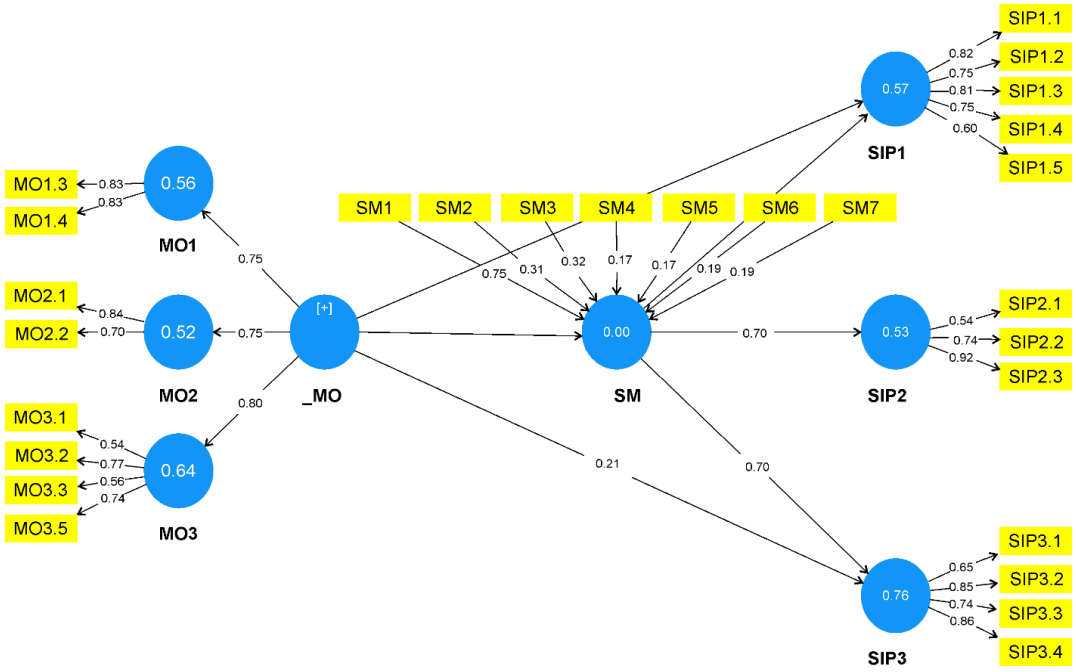

Figure 1. SEM PLS Result

Table 4. Hypothesis testing results

Hypothesis		β	Standard Error	t-value	p-value	Conclusion
H1	MO → SIP Eco	-0.15	0.05	3.12	0.001	Accepted
H2	MO → SIP Env	0.15	0.05	3.33	0.000	Accepted
H3	MO → SIP Soc	0.21	0.04	4.92	0.000	Accepted
H4	MO → SM	0.06	0.09	0.62	0.268	Rejected
H5	SM → SIP Eco	0.75	0.03	26.03	0.000	Accepted
H6	SM → SIP Env	0.70	0.04	16.86	0.000	Accepted
H7	SM → SIP Soc	0.84	0.02	35.48	0.000	Accepted
H8	MO → SM → SIP Eco	0.04	0.07	0.61	0.270	Rejected
H9	MO → SM → SIP Env	0.04	0.07	0.62	0.269	Rejected
H10	MO → SM → SIP Soc	0.05	0.08	0.62	0.269	Rejected

The mediating effect of social media marketing between the implementation of market orientation and business performance (economic) is not significant (p-value = 0.270 > 0.05). As a result, the eighth hypothesis is rejected, indicating no significant mediating effect. The mediating effect of social media marketing between the implementation of market orientation and business performance (environment) is not significant (p-value = 0.269 > 0.05). Therefore, the ninth hypothesis is rejected, indicating no significant mediating effect. The mediating effect of social media marketing between the implementation of market orientation and business performance (social) is not significant (p-value = 0.269 > 0.05). Therefore, the tenth hypothesis is rejected, stating no significant mediating effect at the 5% error level. Previous research has shown the potential role of social media marketing practices as a mediator in the relationship between market orientation and sustainability outcomes. Studies conducted by Abbas et al. (2019) and Papadas et al. (2019) highlight the positive impact of social media marketing initiatives on various organizational outcomes, including economic, environmental, and social performance. These findings suggest that social media marketing can serve as a mediator between market orientation and business performance . However, the findings of this study

indicate that the mediating effect of social media marketing between market orientation and business performance (economic, environmental, and social) is not statistically significant in the context of the batik industry in Indonesia. This differs from the research by Guo et al. (2020), which showed a deviation from the expected mediating role of social media marketing practices. This gap underscores the importance of considering industry-specific factors and contextual nuances in understanding the relationship between market orientation, social media marketing, and sustainability outcomes.

5. Conclusion

This study concludes that there is a significant relationship between market orientation, social media marketing, and business performance across economic, environmental, and social dimensions in the batik industry in Indonesia. Although market orientation negatively impacts economic performance, it positively influences environmental and social performance. On the other hand, the implementation of social media marketing has a positive influence on all dimensions of business performance, highlighting its role in driving industrial sustainability. Theoretically, this research underscores the importance of integrating environmental considerations into marketing strategies and business operations to enhance sustainability outcomes. It emphasizes the need for businesses to adopt a holistic approach that combines market orientation and social media marketing strategies to achieve business performance. Practically, these findings provide valuable insights for stakeholders in the batik industry and guide strategic decision-making processes. By aligning business practices with the increasing consumer preferences for products, companies can enhance sustainability performance across economic, environmental, and social dimensions. The limitation of this research is its focus on small and medium-scale batik companies, which limits the generalizability of these findings. Future research could address this limitation by expanding the scope of the study to include a wider geographical area and more diverse industry players.

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THE MEDIATING EFFECT OF SOCIAL MEDIA MARKETING IN THE MARKET ORIENTATION AND BUSINESS PERFORMANCE RELATIONSHIP

Aang Munawar[1], Ani Mekaniwati[2], Abdul Thalib Bon[2], Iswandi Sukartaatmadja[1]
[1] Faculty of Business, Institut Bisnis dan Informatika Kesatuan, Bogor, Indonesia
[2] Faculty of Technology and Business Management, Universiti Tun Hussein Onn Malaysia

Abstract

This research aims to analyze the sustainability challenges in small and medium-scale enterprises in Indonesia, focusing on marketing orientation, social media marketing, and three domains of business performance, namely economic, social and environmental aspects. Data from 238 respondents in Pekalongan, Central Java Province, Indonesia, were analyzed using the SEM-PLS method. These findings support six hypotheses revealing the impact of marketing orientation on various aspects of business performance (economic/social/environmental) and the influence of social media marketing on economic, environmental, and social dimensions. The results have significant implications for SMEs in Indonesia. The findings highlight the need for improvement in sustainability practices, such as increasing alignment between marketing orientation and social media marketing strategies.

Keywords: Marketing Orientation, Social Media Marketing, Economics, Business Performance, MSMEs

1. Introduction

The contemporary business landscape is facing increasing pressure to positively respond to environmental challenges. Awareness of environmental issues has significantly risen among consumers, who are now more inclined to choose environmentally friendly products and services. Research by Sun et al. (2021) highlights the importance of sustainable responses from companies to environmental issues to meet the expectations of increasingly environmentally conscious consumers. However, companies' efforts to market products as sustainable and environmentally friendly are not always well-received by consumers. Critics highlight a lack of credibility and reliability in advertising, especially when it comes to claims about environmental standards.

Atkinson & Rosenthal (2014) and Göçer & Sevil (2017) state that deficiencies in communication about corporate environmental practices can reduce consumer trust and hinder participation in environmentally responsible consumption. In facing the evolving dynamics of the market, businesses must be able to adapt and anticipate changes to remain competitive. Ali et al. (2020) emphasizes the importance of gaining a competitive advantage through strategic adaptation responsive to the market. In response, both academics and industry practitioners are increasingly focusing on improving market orientation capabilities. Research by Arief et al. (2020), Oerstl et al. (2020), and Murillo et al. (2021) highlights the need to focus on developing adaptive and responsive capabilities to changing market demands and preferences.

Although having significant potential benefits, small and medium-sized enterprises (SMEs) in developing countries often face a number of challenges that limit their ability to achieve sustainable operations. One major challenge is the high costs associated with sustainability practices. Schulze et al. (2022) highlight the important role of costs as a major barrier in SMEs' efforts to adopt sustainable practices. Additionally, a lack of skills and training is also a serious issue faced by many SMEs. Business owners may lack the knowledge or skills required to effectively implement sustainability practices. This can hinder their ability to identify innovative opportunities in operations or to manage necessary changes. Lack of access to training and educational resources can exacerbate this situation.

The absence of standard metrics for measuring sustainability also poses a challenge for SMEs. Without clear frameworks and measurable criteria, SMEs may struggle to objectively evaluate their sustainability performance. This can make it difficult to track progress, identify areas where improvements are needed, or compare performance with competitors or industry standards. Additionally, reluctance to adopt new technologies can also hinder SMEs' ability to achieve sustainable operations. Although technology often can help improve efficiency and reduce environmental impact, many SMEs may be hesitant to invest in new technology due to concerns about costs, implementation complexity, or uncertainty about outcomes. This can lead to a lag in the adoption of sustainable and innovative technology processes, as demonstrated by Kumar & Ghodeswar's (2015) research.

This study utilizes market orientation and social media marketing strategies to drive sustainable performance among SMEs, particularly in the textile sector. The objective of this research is to analyze the extent to which the relationship between market orientation and social media marketing enhances sustainable performance in the textile sector among small and medium-sized enterprises (SMEs) in Central Java Province, Indonesia.

2. Literature Review

Market uncertainty can encompass various unpredictable external factors, such as changes in customer preferences, shifts in industry trends, or unstable global economic conditions. In such situations, companies with a market-oriented approach, actively prioritizing understanding and responding to customer needs and preferences, tend to be better at introducing new products (Centobelli et al., 2019). Market orientation is a strategic approach where companies focus on deep understanding of customer needs and desires and strive to meet them better than competitors. The importance of effective marketing is emphasized as a key to achieving long-term business success. This includes identifying customer needs, understanding the market well, and responding quickly to changes in the business environment (Taghvaee & Talebi, 2023). In the context of new product launches, strong market orientation can help companies reduce risks and increase success opportunities by ensuring that the introduced products align with changing market needs. In addition to focusing on customers, market orientation also considers external environmental factors. This includes considering factors such as economic conditions, industry competition, and government regulations that may influence a company's business strategy (Kirca et al., 2005).

Social media marketing emphasizes the ecological consequences of marketing activities and plays a significant role in addressing environmental issues (Lazer, 1969). Social media marketing involves organizational efforts to develop, promote, and sell environmentally friendly products (Day & Wensley, 1988; Jeevandas et al., 2019). This has a significant impact on ecosystem sustainability, with stakeholder demands, resources, knowledge, and product uniqueness being determining factors of its success (Mekaniwati et al., 2023). Companies that aim to have significant market influence, especially in contemporary and future eras, must address environmental barriers (Raharjo, 2019). Social media marketing underscores the ecological impact of marketing and its critical role in environmental mitigation (Jones et al., 2008). Embracing innovation is an optimal way to increase profitability while maintaining economic competitiveness (Lazer, 1969).

The principles of social media marketing have become catalysts for these efforts, enabling companies to build stronger relationships with customers and the general public while promoting sustainability values (Costantini et al., 2017; Foerstl et al., 2020). Improved company performance is a crucial prerequisite in this context. The effectiveness of marketing capabilities, co-creation of customer value, and market orientation all contribute to overall company performance. Social media marketing allows companies to interact directly with customers, gather feedback, and respond quickly to changes in market preferences and

demands (Chen & Liu, 2018). Integrating three core interests - fair economic participation, environmental preservation, and social responsibility - in decision-making processes also remains a primary focus in sustainable development (Purba et al., 2019). Thus, social media marketing not only serves as a tool to promote products and services but also as a platform to communicate a company's commitment to environmental and social sustainability.

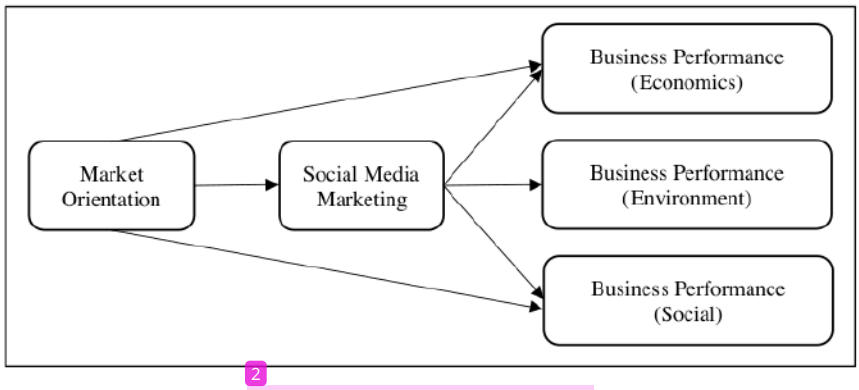

Figure 1. Conceptual Framework

H1. Market orientation has a positive and significant effect on business performance (economic)
H2. Market orientation has a positive and significant effect on business performance (environment)
H3. Market orientation has a positive and significant effect on business performance (social)
H4. Market orientation has a positive and significant effect on social media marketing
H5. Social media marketing has a positive and significant effect on business performance (economic)
H6. Social media marketing has a positive and significant effect on business performance (environment)
H7. Social media marketing has a positive and significant effect on business performance (social)
H8. Social media marketing mediates the relationship between market orientation and business performance (economic)
H9. Social media marketing mediates the relationship between market orientation and business performance (environment)
H10. Social media marketing mediates the relationship between market orientation and business performance (social)

3. Research Method

This research employs a quantitative method to collect and analyze data. Data are gathered through the use of a Likert scale questionnaire ranging from 1 to 5 points, which is used to interpret respondents' answers. The sample size for this study consists of 238 Small and Medium Enterprises (SMEs) in Central Java, Indonesia. The use of a quantitative research design focuses on three latent variables or main dimensions: marketing orientation, social media marketing, and business performance in three areas, namely economic, social, and environmental. The aim of this research is to explore how the interaction between marketing orientation and social media marketing influences the business performance of SMEs in Central Java, Indonesia, particularly in economic, social, and environmental aspects. Data

collected from respondents are analyzed using Partial Least Squares Structural Equation Modeling (PLS SEM), which is a statistical method useful for testing conceptual models involving latent variables. Data analysis is conducted using Smart PLS software version 4.9.5.

4. Result

In construct analysis, each item in each variable shows a positive loading value exceeding 0.50 and a p value below 0.05 which indicates its ability to explain the related dimensions or variables. Items that were not considered in the analysis because their loading values were below 0.05 were excluded from Tables 1, 2, and 3 because they did not have significance.

Table 1. Path coefficient values, AVE and Cronbach's Alpha

Construct	Path Coefficient	t-value	P-value	AVE	Cronbach's Alpha	Composite Reliability	VIF
Market Orientation	-	-	-	0.57	0.63	0.80	-
Customer Orientation	0.75	18.06	0.000	0.69	0.55	0.82	-
Competitor Orientation	0.72	16.45	0.000	0.60	0.35	0.75	-
Inter-function Coordination	0.80	16.46	0.000	0.51	0.68	0.80	-
Social Media Marketing	-	-	-	0.58	0.71	0.83	-
Reach	0.07	1.29	0.098	0.52	0.70	0.81	1.629
Retention Rate	0.31	1.98	0.024	0.81	0.92	0.94	9.129
Brand Sentiment	0.12	1.85	0.032	0.62	0.79	0.87	3.334
User Participation	0.17	1.27	0.103	0.71	0.87	0.91	8.655
Level of Influence	0.19	2.29	0.011	0.65	0.86	0.90	3.027
Target Level	0.19	1.75	0.040	0.76	0.89	0.93	5.335
Level of Responsibility	0.06	0.61	0.270	0.71	0.86	0.91	3.476
Business Performance (Economics)	-	-	-	0.54	0.79	0.85	-
Business Performance (Environment)	-	-	-	0.70	0.78	0.87	-
Business Performance (Social)	-	-	-	0.61	0.78	0.86	-

Almost all dimensions consisting of second-order variables show path coefficient values exceeding 0.50 and p-values below 0.05, indicating effective explanation of related latent variables. For the social media marketing variable, the three indicator variables, namely reach, user participation, and level of responsiveness, have p-values above 0.05, making these variables statistically insignificant. Second-order dimensions, as well as main latent variables, all show AVE values exceeding or approaching 0.50. This indicates that these primary latent dimensions or variables meet the criteria for construct validity. The majority of dimensions composing second-order and primary latent variables show Composite Reliability values exceeding 0.70. This indicates that these primary latent dimensions or variables meet the criteria for construct reliability. Finally, all formative indicator variables of social media marketing display VIF values below 10, indicating no multicollinearity among these indicators. The findings of the analysis of endogenous latent variables in Table 2 indicate that the application of market orientation and social media marketing shows weak predictive power. Additionally, business performance in economic, environmental, and social dimensions shows moderate to strong R^2 values, indicating that a significant proportion of variance can be explained by the model. Lastly, the Q^2 values for business performancevariables indicate acceptable predictive relevance, implying the model's ability to accurately predict sustainability outcomes. Although social media marketing has minimal impact on business performancein the economic domain, it has a significant impact on environmental and social dimensions, as evidenced by relatively large f^2 values.

Table 2. Coefficient of determination (R^2) and Predictive Relevance (Q^2)

Endogenous Latent Variables	f^2	R^2	Q^2
Implementation of Market Orientation	0,00		
Social Media Marketing		0,00	0,01
Business Performance (Economics)		0,57	0,29
Business Performance (Environment)		0,53	0,36
Business Performance (Social)		0,76	0,46
Social Media Marketing		0,00	0,01
Business Performance (Economics)		0,57	0,29
Implementation of Market Orientation	0,05		
Social Media Marketing	1,28		
Business Performance (Environment)		0,53	0,36
Implementation of Market Orientation	0,05		
Social Media Marketing	1,05		
Business Performance (Social)		0,76	0,46
Implementation of Market Orientation	0,18		
Social Media Marketing	2,96		

The findings in Table 3 depict the relationship between market orientation and business performance in the economic, environmental, and social dimensions. Market orientation correlates positively with environmental and social performance, indicating its influence in promoting sustainability. However, it correlates negatively with economic performance. Business performance shows a strong positive correlation among its dimensions, indicating a cohesive relationship between economic, environmental, and social aspects. The results of this study suggest that although market orientation has a positive impact on environmental and social sustainability, its impact on the economic performance of the batik industry may not be significant.

Table 3. Second Order Fornell-Lacker

Variable	Market Orientation	Business Performance (Economics)	Business Performance (Environment)	Business Performance (Social)
Market Orientation	0.578			
Business Performance (Economics)	-0.109	0.737		
Business Performance (Environment)	0.193	0.674	0.836	
Business Performance (Social)	0.255	0.638	0.757	0.780

Hypothesis testing revealed that the implementation of market orientation significantly affects business performance (economic) (p-value = 0.00 < 0.05) (Table 4). Therefore, the first hypothesis is accepted, indicating that the implementation of market orientation positively impacts business performance (economic). This research finding is consistent with Udriyah et al. (2019), who explored the relationship between market orientation and business performance , including its impact on economic, environmental, and social dimensions, especially in terms of market responsiveness and competitiveness. Similarly, Tajeddini & Ratten (2020) found that market orientation is associated with improved business performance and customer satisfaction.

The implementation of market orientation significantly affects business performance (environment) positively (p-value = 0.00 < 0.05). Thus, the second hypothesis is accepted, indicating that market orientation positively influences business performance (environment). Furthermore, the positive influence of market orientation on business performance (environment) aligns with the principles of sustainable development and corporate social responsibility (CSR). The implementation of market orientation significantly affects business performance (social) positively (p-value = 0.00 < 0.05). As a result, the third hypothesis is accepted, highlighting the positive impact of market orientation on business performance (social). Tjahjadi et al. (2020) research in sustainability and marketing has underscored the role of market orientation in promoting environmentally and socially responsible business practices. Market orientation drives innovation in environmentally friendly products and meets consumer demand for environmentally friendly products. Similarly, Alhakimi & Mahmoud (2020) found that market orientation positively influences a company's responsiveness to social issues.

The implementation of market orientation does not significantly affect the implementation of social media marketing (p-value = 0.27 > 0.05). Thus, the fourth hypothesis is rejected, stating that market orientation significantly affects social media marketing. However, the lack of significant influence of market orientation on social media marketing observed in this study differs from some previous research. Keszey (2020) stated a positive relationship between market orientation and the implementation of social media marketing practices. Additionally, Danso et al. (2019) found that market orientation positively influences social media marketing strategy. This difference may be due to specific contextual factors in the batik industry in Indonesia.

The implementation of social media marketing significantly affects business performance (economic) (p-value = 0.00 < 0.05). Thus, the fifth hypothesis is accepted, indicating a positive influence of social media marketing implementation on business performance (economic). Additionally, social media marketing significantly affects business performance (environment) (p-value = 0.03 < 0.05). Therefore, the sixth hypothesis is accepted, illustrating the significant influence of social media marketing on business performance (environment). Furthermore, social media marketing significantly affects business performance (social) (p-value = 0.00 < 0.05). Thus, the seventh hypothesis is accepted, indicating a positive influence of social media marketing on business performance (social). Findings regarding the significant influence of social media marketing on business performance echo Liao et al. (2020), who emphasize the economic, environmental, and social benefits of social media marketing, indicating that environmentally friendly products can attract premium prices and increase brand loyalty. Similarly, Gelderman et al. (2021) found that social media marketing initiatives contribute to improving environmental performance and customer perception.

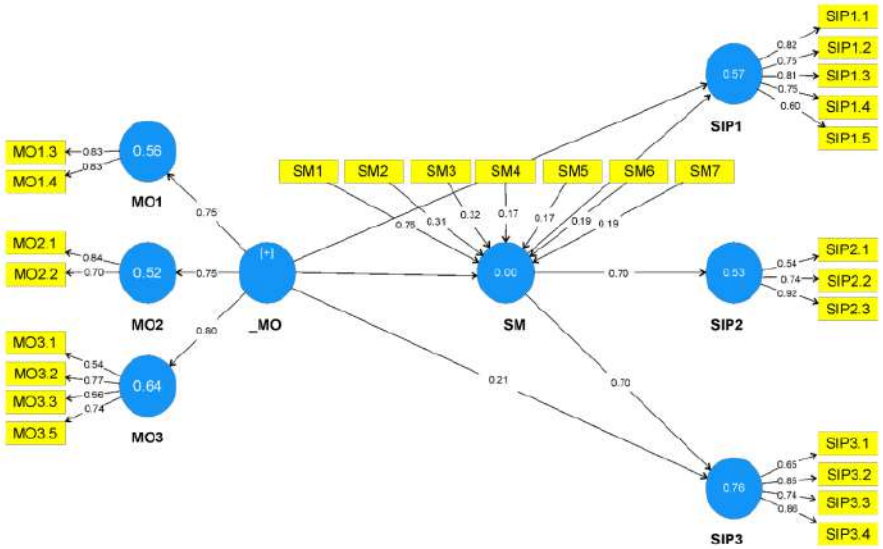

Figure 1. SEM PLS Result

Table 4. Hypothesis testing results

Hypothesis		β	Standard Error	t-value	p-value	Conclusion
H1	MO → SIP Eco	-0.15	0.05	3.12	0.001	Accepted
H2	MO → SIP Env	0.15	0.05	3.33	0.000	Accepted
H3	MO → SIP Soc	0.21	0.04	4.92	0.000	Accepted
H4	MO → SM	0.06	0.09	0.62	0.268	Rejected
H5	SM → SIP Eco	0.75	0.03	26.03	0.000	Accepted
H6	SM → SIP Env	0.70	0.04	16.86	0.000	Accepted
H7	SM → SIP Soc	0.84	0.02	35.48	0.000	Accepted
H8	MO → SM → SIP Eco	0.04	0.07	0.61	0.270	Rejected
H9	MO → SM → SIP Env	0.04	0.07	0.62	0.269	Rejected
H10	MO → SM → SIP Soc	0.05	0.08	0.62	0.269	Rejected

The mediating effect of social media marketing between the implementation of market orientation and business performance (economic) is not significant (p-value = 0.270 > 0.05). As a result, the eighth hypothesis is rejected, indicating no significant mediating effect. The mediating effect of social media marketing between the implementation of market orientation and business performance (environment) is not significant (p-value = 0.269 > 0.05). Therefore, the ninth hypothesis is rejected, indicating no significant mediating effect. The mediating effect of social media marketing between the implementation of market orientation and business performance (social) is not significant (p-value = 0.269 > 0.05). Therefore, the tenth hypothesis is rejected, stating no significant mediating effect at the 5% error level. Previous research has shown the potential role of social media marketing practices as a mediator in the relationship between market orientation and sustainability outcomes. Studies conducted by Abbas et al. (2019) and Papadas et al. (2019) highlight the positive impact of social media marketing initiatives on various organizational outcomes, including economic, environmental, and social performance. These findings suggest that social media marketing can serve as a mediator between market orientation and business performance . However, the findings of this study

indicate that the mediating effect of social media marketing between market orientation and business performance (economic, environmental, and social) is not statistically significant in the context of the batik industry in Indonesia. This differs from the research by Guo et al. (2020), which showed a deviation from the expected mediating role of social media marketing practices. This gap underscores the importance of considering industry-specific factors and contextual nuances in understanding the relationship between market orientation, social media marketing, and sustainability outcomes.

5. Conclusion

This study concludes that there is a significant relationship between market orientation, social media marketing, and business performance across economic, environmental, and social dimensions in the batik industry in Indonesia. Although market orientation negatively impacts economic performance, it positively influences environmental and social performance. On the other hand, the implementation of social media marketing has a positive influence on all dimensions of business performance, highlighting its role in driving industrial sustainability. Theoretically, this research underscores the importance of integrating environmental considerations into marketing strategies and business operations to enhance sustainability outcomes. It emphasizes the need for businesses to adopt a holistic approach that combines market orientation and social media marketing strategies to achieve business performance. Practically, these findings provide valuable insights for stakeholders in the batik industry and guide strategic decision-making processes. By aligning business practices with the increasing consumer preferences for products, companies can enhance sustainability performance across economic, environmental, and social dimensions. The limitation of this research is its focus on small and medium-scale batik companies, which limits the generalizability of these findings. Future research could address this limitation by expanding the scope of the study to include a wider geographical area and more diverse industry players.

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THE MEDIATING EFFECT OF SOCIAL MEDIA MARKETING IN THE MARKET ORIENTATION AND BUSINESS PERFORMANCE RELATIONSHIP

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The mediating effect of social media marketing in the market orientation and business performance relationship

Aang Munawar[a*], Ani Mekaniwati[b], Abdul Thalib Bon[b] and Iswandi Sukartaatmadja[a]

[a]*Faculty of Business, Institut Bisnis dan Informatika Kesatuan, Bogor, Indonesia*
[b]*Faculty of Technology and Business Management, Universiti Tun Hussein Onn Malaysia*

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A B S T R A C T

This research aims to analyze the sustainability challenges in small and medium-scale enterprises in Indonesia, focusing on marketing orientation, social media marketing, and three domains of business performance, namely economic, social and environmental aspects. Data from 238 respondents in Pekalongan, Central Java Province, Indonesia, were analyzed using the SEM-PLS method. These findings support six hypotheses revealing the impact of marketing orientation on various aspects of business performance (economic/social/environmental) and the influence of social media marketing on economic, environmental, and social dimensions. The results have significant implications for SMEs in Indonesia. The findings highlight the need for improvement in sustainability practices, such as increasing alignment between marketing orientation and social media marketing strategies.

1. Introduction

The contemporary business landscape is facing increasing pressure to positively respond to environmental challenges. Awareness of environmental issues has significantly risen among consumers, who are now more inclined to choose environmentally friendly products and services. Research by Sun et al. (2021) highlights the importance of sustainable responses from companies to environmental issues to meet the expectations of increasingly environmentally conscious consumers. However, companies' efforts to market products as sustainable and environmentally friendly are not always well-received by consumers. Critics highlight a lack of credibility and reliability in advertising, especially when it comes to claims about environmental standards. Atkinson and Rosenthal (2014) and Göçer and Sevil (2017) state that deficiencies in communication about corporate environmental practices can reduce consumer trust and hinder participation in environmentally responsible consumption. In facing the evolving dynamics of the market, businesses must be able to adapt and anticipate changes to remain competitive. Ali et al. (2020) emphasizes the importance of gaining a competitive advantage through strategic adaptation responsive to the market. In response, both academics and industry practitioners are increasingly focusing on improving market orientation capabilities. Research by Arief et al. (2020), Oerstl et al. (2020), and Murillo et al. (2021) highlights the need to focus on developing adaptive and responsive capabilities to changing market demands and preferences. Although having significant potential benefits, small and medium-sized enterprises (SMEs) in developing countries often face a number of challenges that limit their ability to achieve sustainable operations. One major challenge is the high costs associated with sustainability practices. Schulze et al. (2022) highlight the important role of costs as a major barrier in SMEs' efforts to adopt sustainable practices. Additionally, a lack of skills and training is also a serious issue faced by many SMEs. Business owners may lack the knowledge or skills required to effectively implement sustainability practices. This can hinder their ability to identify

* Corresponding author.
E-mail address amunawar.ibik@gmail.com (A. Munawar)

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innovative opportunities in operations or to manage necessary changes. Lack of access to training and educational resources can exacerbate this situation. The absence of standard metrics for measuring sustainability also poses a challenge for SMEs. Without clear frameworks and measurable criteria, SMEs may struggle to objectively evaluate their sustainability performance. This can make it difficult to track progress, identify areas where improvements are needed, or compare performance with competitors or industry standards. Additionally, reluctance to adopt new technologies can also hinder SMEs' ability to achieve sustainable operations. Although technology often can help improve efficiency and reduce environmental impact, many SMEs may be hesitant to invest in new technology due to concerns about costs, implementation complexity, or uncertainty about outcomes. This can lead to a lag in the adoption of sustainable and innovative technology processes, as demonstrated by Kumar & Ghodeswar's (2015) research.

This study utilizes market orientation and social media marketing strategies to drive sustainable performance among SMEs, particularly in the textile sector. The objective of this research is to analyze the extent to which the relationship between market orientation and social media marketing enhances sustainable performance in the textile sector among small and medium-sized enterprises (SMEs) in Central Java Province, Indonesia.

2. Literature Review

Market uncertainty can encompass various unpredictable external factors, such as changes in customer preferences, shifts in industry trends, or unstable global economic conditions. In such situations, companies with a market-oriented approach, actively prioritizing understanding and responding to customer needs and preferences, tend to be better at introducing new products (Centobelli et al., 2019). Market orientation is a strategic approach where companies focus on deep understanding of customer needs and desires and strive to meet them better than competitors. The importance of effective marketing is emphasized as a key to achieving long-term business success. This includes identifying customer needs, understanding the market well, and responding quickly to changes in the business environment (Taghvaee & Talebi, 2023). In the context of new product launches, strong market orientation can help companies reduce risks and increase success opportunities by ensuring that the introduced products align with changing market needs. In addition to focusing on customers, market orientation also considers external environmental factors. This includes considering factors such as economic conditions, industry competition, and government regulations that may influence a company's business strategy (Kirca et al., 2005).

Social media marketing emphasizes the ecological consequences of marketing activities and plays a significant role in addressing environmental issues (Lazer, 1969). Social media marketing involves organizational efforts to develop, promote, and sell environmentally friendly products (Day & Wensley, 1988; Jeevandas et al., 2019). This has a significant impact on ecosystem sustainability, with stakeholder demands, resources, knowledge, and product uniqueness being determining factors of its success (Mekaniwati et al., 2023). Companies that aim to have significant market influence, especially in contemporary and future eras, must address environmental barriers (Raharjo, 2019). Social media marketing underscores the ecological impact of marketing and its critical role in environmental mitigation (Jones et al., 2008). Embracing innovation is an optimal way to increase profitability while maintaining economic competitiveness (Lazer, 1969). The principles of social media marketing have become catalysts for these efforts, enabling companies to build stronger relationships with customers and the general public while promoting sustainability values (Costantini et al., 2017; Foerstl et al., 2020). Improved company performance is a crucial prerequisite in this context. The effectiveness of marketing capabilities, co-creation of customer value, and market orientation all contribute to overall company performance. Social media marketing allows companies to interact directly with customers, gather feedback, and respond quickly to changes in market preferences and demands (Chen & Liu, 2018). Integrating three core interests - fair economic participation, environmental preservation, and social responsibility - in decision-making processes also remains a primary focus in sustainable development (Purba et al., 2019). Thus, social media marketing not only serves as a tool to promote products and services but also as a platform to communicate a company's commitment to environmental and social sustainability.

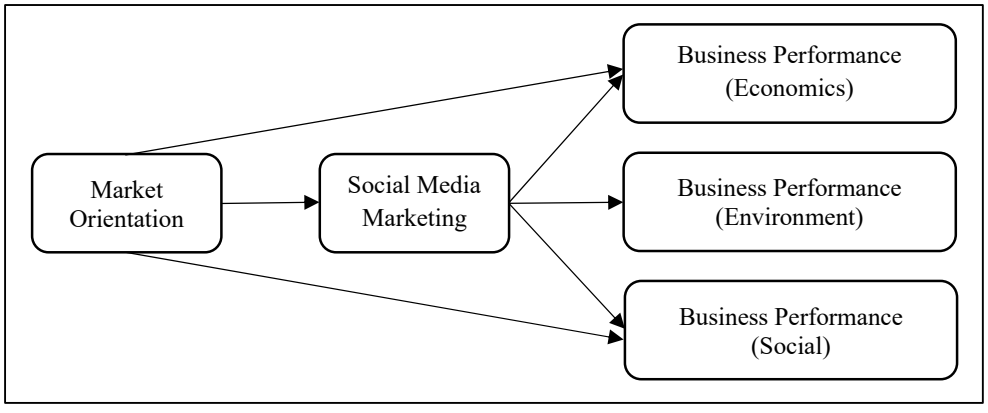

Fig. 1. Conceptual Framework

H_1: *Market orientation has a positive and significant effect on business performance (economic).*
H_2: *Market orientation has a positive and significant effect on business performance (environment).*
H_3: *Market orientation has a positive and significant effect on business performance (social).*
H_4: *Market orientation has a positive and significant effect on social media marketing.*
H_5: *Social media marketing has a positive and significant effect on business performance (economic)*
H_6: *Social media marketing has a positive and significant effect on business performance (environment).*
H_7: *Social media marketing has a positive and significant effect on business performance (social).*
H_8: *Social media marketing mediates the relationship between market orientation and business performance (economic).*
H_9: *Social media marketing mediates the relationship between market orientation and business performance (environment).*
H_{10}: *Social media marketing mediates the relationship between market orientation and business performance (social).*

3. Research Method

This research employs a quantitative method to collect and analyze data. Data are gathered through the use of a Likert scale questionnaire ranging from 1 to 5 points, which is used to interpret respondents' answers. The sample size for this study consists of 238 Small and Medium Enterprises (SMEs) in Central Java, Indonesia. The use of a quantitative research design focuses on three latent variables or main dimensions: marketing orientation, social media marketing, and business performance in three areas, namely economic, social, and environmental. The aim of this research is to explore how the interaction between marketing orientation and social media marketing influences the business performance of SMEs in Central Java, Indonesia, particularly in economic, social, and environmental aspects. Data collected from respondents are analyzed using Partial Least Squares Structural Equation Modeling (PLS SEM), which is a statistical method useful for testing conceptual models involving latent variables. Data analysis is conducted using Smart PLS software version 4.9.5.

4. Result

In construct analysis, each item in each variable shows a positive loading value exceeding 0.50 and a p value below 0.05 which indicates its ability to explain the related dimensions or variables. Items that were not considered in the analysis because their loading values were below 0.05 were excluded from Tables 1, 2, and 3 because they did not have significance.

Table 1
Path coefficient values, AVE and Cronbach's Alpha

Construct	Path Coefficient	t-value	P-value	AVE	Cronbach's Alpha	Composite Reliability	VIF
Market Orientation	-	-	-	0.57	0.63	0.80	-
Customer Orientation	0.75	18.06	0.000	0.69	0.55	0.82	-
Competitor Orientation	0.72	16.45	0.000	0.60	0.35	0.75	-
Inter-function Coordination	0.80	16.46	0.000	0.51	0.68	0.80	-
Social Media Marketing	-	-	-	0.58	0.71	0.83	-
Reach	0.07	1.29	0.098	0.52	0.70	0.81	1.629
Retention Rate	0.31	1.98	0.024	0.81	0.92	0.94	9.129
Brand Sentiment	0.12	1.85	0.032	0.62	0.79	0.87	3.334
User Participation	0.17	1.27	0.103	0.71	0.87	0.91	8.655
Level of Influence	0.19	2.29	0.011	0.65	0.86	0.90	3.027
Target Level	0.19	1.75	0.040	0.76	0.89	0.93	5.335
Level of Responsibility	0.06	0.61	0.270	0.71	0.86	0.91	3.476
Business Performance (Economics)	-	-	-	0.54	0.79	0.85	-
Business Performance (Environment)	-	-	-	0.70	0.78	0.87	-
Business Performance (Social)	-	-	-	0.61	0.78	0.86	-

Almost all dimensions consisting of second-order variables show path coefficient values exceeding 0.50 and p-values below 0.05, indicating effective explanation of related latent variables. For the social media marketing variable, the three indicator variables, namely reach, user participation, and level of responsiveness, have p-values above 0.05, making these variables statistically insignificant. Second-order dimensions, as well as main latent variables, all show AVE values exceeding or approaching 0.50. This indicates that these primary latent dimensions or variables meet the criteria for construct validity. The majority of dimensions composing second-order and primary latent variables show Composite Reliability values exceeding 0.70. This indicates that these primary latent dimensions or variables meet the criteria for construct reliability. Finally, all formative indicator variables of social media marketing display VIF values below 10, indicating no multicollinearity among these indicators. The findings of the analysis of endogenous latent variables in Table 2 indicate that the application of market orientation and social media marketing shows weak predictive power. Additionally, business performance in economic, environmental, and social dimensions shows moderate to strong R^2 values, indicating that a significant proportion of variance can be explained by the model. Lastly, the Q^2 values for business performancevariables indicate acceptable predictive relevance, implying the model's ability to accurately predict sustainability outcomes. Although social media marketing has minimal impact on business performancein the economic domain, it has a significant impact on environmental and social dimensions, as evidenced by relatively large f^2 values.

Table 2
Coefficient of determination (R^2) and Predictive Relevance (Q^2)

Endogenous Latent Variables	f^2	R^2	Q^2
Implementation of Market Orientation	0.00		
Social Media Marketing		0.00	0.01
Business Performance (Economics)		0.57	0.29
Business Performance (Environment)		0.53	0.36
Business Performance (Social)		0.76	0.46
Social Media Marketing		0.00	0.01
Business Performance (Economics)		0.57	0.29
Implementation of Market Orientation	0.05		
Social Media Marketing	1.28		
Business Performance (Environment)		0.53	0.36
Implementation of Market Orientation	0.05		
Social Media Marketing	1.05		
Business Performance (Social)		0.76	0.46
Implementation of Market Orientation	0.18		
Social Media Marketing	2.96		

The findings in Table 3 depict the relationship between market orientation and business performance in the economic, environmental, and social dimensions. Market orientation correlates positively with environmental and social performance, indicating its influence in promoting sustainability. However, it correlates negatively with economic performance. Business performance shows a strong positive correlation among its dimensions, indicating a cohesive relationship between economic, environmental, and social aspects. The results of this study suggest that although market orientation has a positive impact on environmental and social sustainability, its impact on the economic performance of the batik industry may not be significant.

Table 3
Second Order Fornell-Lacker

Variable	Market Orientation	Business Performance (Economics)	Business Performance (Environment)	Business Performance (Social)
Market Orientation	0.578			
Business Performance (Economics)	-0.109	0.737		
Business Performance (Environment)	0.193	0.674	0.836	
Business Performance (Social)	0.255	0.638	0.757	0.780

Hypothesis testing revealed that the implementation of market orientation significantly affects business performance (economic) (p-value = 0.00 < 0.05) (Table 4). Therefore, the first hypothesis is accepted, indicating that the implementation of market orientation positively impacts business performance (economic). This research finding is consistent with Udriyah et al. (2019), who explored the relationship between market orientation and business performance, including its impact on economic, environmental, and social dimensions, especially in terms of market responsiveness and competitiveness. Similarly, Tajeddini and Ratten (2020) found that market orientation is associated with improved business performance and customer satisfaction. The implementation of market orientation significantly affects business performance (environment) positively (p-value = 0.00 < 0.05). Thus, the second hypothesis is accepted, indicating that market orientation positively influences business performance (environment). Furthermore, the positive influence of market orientation on business performance (environment) aligns with the principles of sustainable development and corporate social responsibility (CSR). The implementation of market orientation significantly affects business performance (social) positively (p-value = 0.00 < 0.05). As a result, the third hypothesis is accepted, highlighting the positive impact of market orientation on business performance (social). Tjahjadi et al. (2020) research in sustainability and marketing has underscored the role of market orientation in promoting environmentally and socially responsible business practices. Market orientation drives innovation in environmentally friendly products and meets consumer demand for environmentally friendly products. Similarly, Alhakimi and Mahmoud (2020) found that market orientation positively influences a company's responsiveness to social issues. The implementation of market orientation does not significantly affect the implementation of social media marketing (p-value = 0.27 > 0.05). Thus, the fourth hypothesis is rejected, stating that market orientation significantly affects social media marketing. However, the lack of significant influence of market orientation on social media marketing observed in this study differs from some previous research. Keszey (2020) stated a positive relationship between market orientation and the implementation of social media marketing practices. Additionally, Danso et al. (2019) found that market orientation positively influences social media marketing strategy. This difference may be due to specific contextual factors in the batik industry in Indonesia.

The implementation of social media marketing significantly affects business performance (economic) (p-value = 0.00 < 0.05). Thus, the fifth hypothesis is accepted, indicating a positive influence of social media marketing implementation on business

performance (economic). Additionally, social media marketing significantly affects business performance (environment) (p-value = 0.03 < 0.05). Therefore, the sixth hypothesis is accepted, illustrating the significant influence of social media marketing on business performance (environment). Furthermore, social media marketing significantly affects business performance (social) (p-value = 0.00 < 0.05). Thus, the seventh hypothesis is accepted, indicating a positive influence of social media marketing on business performance (social). Findings regarding the significant influence of social media marketing on business performance echo Liao et al. (2020), who emphasize the economic, environmental, and social benefits of social media marketing, indicating that environmentally friendly products can attract premium prices and increase brand loyalty. Similarly, Gelderman et al. (2021) found that social media marketing initiatives contribute to improving environmental performance and customer perception.

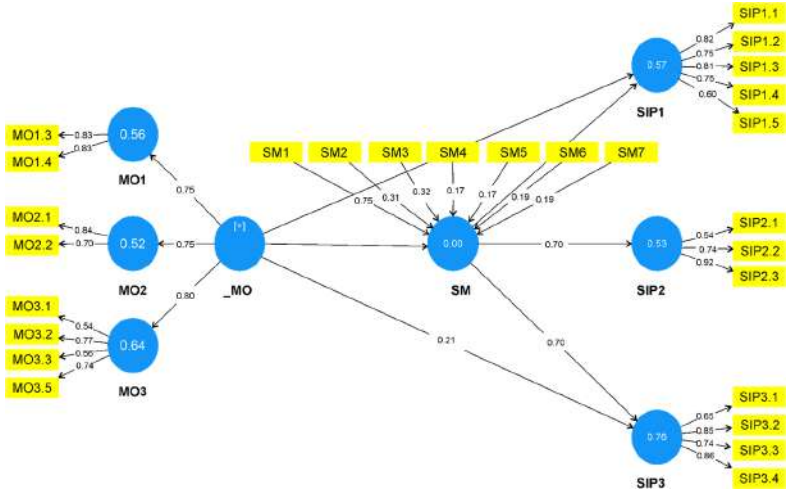

Fig. 2. SEM PLS Result

Table 4
Hypothesis testing results

	Hypothesis	β	Standard Error	t-value	p-value	Conclusion
H1	MO → SIP Eco	-0.15	0.05	3.12	0.001	Accepted
H2	MO → SIP Env	0.15	0.05	3.33	0.000	Accepted
H3	MO → SIP Soc	0.21	0.04	4.92	0.000	Accepted
H4	MO → SM	0.06	0.09	0.62	0.268	Rejected
H5	SM → SIP Eco	0.75	0.03	26.03	0.000	Accepted
H6	SM → SIP Env	0.70	0.04	16.86	0.000	Accepted
H7	SM → SIP Soc	0.84	0.02	35.48	0.000	Accepted
H8	MO → SM → SIP Eco	0.04	0.07	0.61	0.270	Rejected
H9	MO → SM → SIP Env	0.04	0.07	0.62	0.269	Rejected
H10	MO → SM → SIP Soc	0.05	0.08	0.62	0.269	Rejected

The mediating effect of social media marketing between the implementation of market orientation and business performance (economic) is not significant (p-value = 0.270 > 0.05). As a result, the eighth hypothesis is rejected, indicating no significant mediating effect. The mediating effect of social media marketing between the implementation of market orientation and business performance (environment) is not significant (p-value = 0.269 > 0.05). Therefore, the ninth hypothesis is rejected, indicating no significant mediating effect. The mediating effect of social media marketing between the implementation of market orientation and business performance (social) is not significant (p-value = 0.269 > 0.05). Therefore, the tenth hypothesis is rejected, stating no significant mediating effect at the 5% error level. Previous research has shown the potential role of social media marketing practices as a mediator in the relationship between market orientation and sustainability outcomes. Studies conducted by Abbas et al. (2019) and Papadas et al. (2019) highlight the positive impact of social media marketing initiatives on various organizational outcomes, including economic, environmental, and social performance. These findings suggest that social media marketing can serve as a mediator between market orientation and business performance . However, the findings of this study indicate that the mediating effect of social media marketing between market orientation and business performance (economic, environmental, and social) is not statistically significant in the context of the batik industry in Indonesia. This differs from the research by Guo et al. (2020), which showed a deviation from the expected mediating role of social media marketing practices. This gap underscores the importance of considering industry-specific factors and contextual nuances in understanding the relationship between market orientation, social media marketing, and sustainability outcomes.

5. Conclusion

This study concludes that there is a significant relationship between market orientation, social media marketing, and business performance across economic, environmental, and social dimensions in the batik industry in Indonesia. Although market orientation negatively impacts economic performance, it positively influences environmental and social performance. On the other hand, the implementation of social media marketing has a positive influence on all dimensions of business performance, highlighting its role in driving industrial sustainability. Theoretically, this research underscores the importance of integrating environmental considerations into marketing strategies and business operations to enhance sustainability outcomes. It emphasizes the need for businesses to adopt a holistic approach that combines market orientation and social media marketing strategies to achieve business performance. Practically, these findings provide valuable insights for stakeholders in the batik industry and guide strategic decision-making processes. By aligning business practices with the increasing consumer preferences for products, companies can enhance sustainability performance across economic, environmental, and social dimensions. The limitation of this research is its focus on small and medium-scale batik companies, which limits the generalizability of these findings. Future research could address this limitation by expanding the scope of the study to include a wider geographical area and more diverse industry players.

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Open Access Article

1. **The mediating effect of social media marketing in the market orientation and business performance relationship** , *Available on May, 2024*

Aang Munawar, Ani Mekaniwati, Abdul Thalib Bon and Iswandi Sukartaatmadja PDF (650K)

Abstract: This research aims to analyze the sustainability challenges in small and medium-scale enterprises in Indonesia, focusing on marketing orientation, social media marketing, and three domains of business performance, namely economic, social and environmental aspects. Data from 238 respondents in Pekalongan, Central Java Province, Indonesia, were analyzed using the SEM-PLS method. These findings support six hypotheses revealing the impact of marketing orientation on various aspects of business performance (economic/social/environmental) and the influence of social media marketing on economic, environmental, and social dimensions. The results have significant implications for SMEs in Indonesia. The findings highlight the need for improvement in sustainability practices, such as increasing alignment between marketing orientation and social media marketing strategies.

DOI: 10.5267/j.ijdns.2024.5.020
Keywords: Marketing Orientation, Social Media Marketing, Economics, Business Performance, MSMEs

Open Access Article

2. **Impact of live stream marketing on Saudi online consumers trust** , *Available on May, 2024*

Badrea Al Oraini PDF (650K)

Abstract: The aim of this study is to identify the impact of live stream marketing on consumer trust. Data was collected using a questionnaire developed based on prior works and administered electronically to consumers who use live stream marketing before making their purchasing decisions in Saudi Arabia. A total of 350 responses were used for data analysis purposes, which was carried out via SmartPLS 4.0 software. The findings of the study demonstrate a significant and positive impact of live stream

marketing as conceptualized in terms of five dimensions (information, attractiveness, entertainment, expert, and social interaction) on consumer trust. In accordance with the research's findings, researchers advise live stream marketers to learn everything they can about the things they are selling because doing so will enable customers to make well-informed choices.

DOI: 10.5267/j.ijdns.2024.5.019
Keywords: Live stream marketing, Trust, Online consumer, Saudi Arabia

2. **Mental health and long COVID status prediction among recovered COVID-19 patients: A comparison of machine learning methods** , *Available on May, 2024*

Tran Anh Tuan, Win Win Myo , Le Thanh Thao Trang, Nguyen Thi The Nhan, Tran Dai An, Dao Thi Thanh Loan PDF (650K)

Abstract: The COVID-19 pandemic has led to different health outcomes, including long COVID (LCo) and mental health (MH) disorders, impacting millions globally. To enable early healthcare diagnosis, including the prediction of MH conditions and LCo, various research studies have utilized machine learning (ML) techniques. However, there is still a gap in understanding the mental health of recovered COVID-19 patients with long COVID using ML techniques. This study aims to bridge this gap by developing and evaluating ML models, including support vector machine, multilayer perceptron (MLP), k-nearest neighbor, gradient boosting, voting classifier, and extreme gradient boosting, tailored for mental health and long COVID datasets from recovered COVID-19 patients. Additionally, feature selection methods, e.g., Recursive Feature Elimination (RFE) and Extra Trees (ET), and optimized models with hyper-parameter tuning will be employed. Our experiments utilize the dataset of recovered COVID-19 patients. Among these ML models, the MLP with ET-based features achieved the highest accuracy and AUC scores in this dataset, with 1.00 and 0.97 ± 0.02, respectively. The research reveals the high prevalence and risk factors of mental health disorders and long COVID from the dataset. These findings will contribute to personalized healthcare strategies for individuals navigating the complexities of post-COVID-19 recovery, integrating machine learning insights into mental health and long COVID support.

DOI: 10.5267/j.ijdns.2024.5.018
Keywords: Predictive Model, Machine Learning, Mental health, Long COVID, COVID-19

Open Access Article

2. **The effect of digital ERP implementation, supply chain integration and supply chain flexibility on business performance** , *Available on May, 2024*

Kevin Joshua Harianto, Zeplin Jiwa Husada Tarigan, Hotlan Siagian, Sautma Ronni Basana and Ferry Jie PDF (650K)

Abstract: Globalization entails manufacturing companies improving their competitiveness to be superior to competitors. This study investigates the role of ERP implementation in improving business performance through supply chain integration, external supply chain integration, and flexibility. The research surveyed manufacturing companies that were implementing ERP technology adequately. Data was collected from 99 manufacturing companies in East Java that have implemented ERP. The study used judgmental sampling with criteria for employees who have worked for two years and permanent employees and have a role as a critical user or end user of one of the ERP modules in the company department. Data analysis used SmartPLS software version 4.0. The results showed that ERP implementation enhances internal supply chain integration by 0.708, external supply chain integration by 0.491, and supply chain flexibility by 0.244. By responding quickly to interdepartmental needs and integrating systems between functions, internal supply chain integration affects external supply chain integration by 0.373, supply chain flexibility by 0.249, and business performance by 0.196. External supply chain integration affects supply chain flexibility by 0.445 and performance by 0.360. Moreover, supply chain flexibility, described by the flexibility of employee working hours as needed, on-time product delivery, and production processes, impacted business performance by 0.378. The study results provide practical contributions for corporate information technology managers to invest in upgrading ERP software and hardware to maintain integration with a single database in making quick and appropriate decisions. A theoretical contribution to increase competitiveness with supply chain strategy and technology integration.

DOI: 10.5267/j.ijdns.2024.5.017
Keywords: Digital ERP, Internal supply chain integration, External supply chain integration, Supply chain flexibility, Business performance

Open Access Article

2. **The role of information technology (IT) performance in the relationship between high-performance work systems and competitive advantage** , *Available on May, 2024*

Jhoni Maslan, Maludin Panjaitan and Maun Jamaludin PDF (650K)

Abstract: Human resources that are of high quality create a competitive advantage for companies, thus Human Resource Management (HRM) and High-Performance Work Systems (HPWS) that are good become key success factors that need to be considered by every company. This study aims to investigate the influence of Human Resource Management (HRM) and High-Performance Work Systems (HPWS) on Information Technology (IT) Performance and Competitive Advantage of a company. The method used in this study is a quantitative approach with a questionnaire as the data collection method. The research sample consisted of 191 supervisors, managers, and executives of manufacturing companies located in Medan, Indonesia. Data analysis was conducted using SmartPLS 4.0 software. The results showed that Human Resource Management significantly affects IT Performance but does not directly affect Competitive Advantage. Meanwhile, HPWS Capability does not affect IT Performance but significantly affects Competitive Advantage. IT Performance significantly affects Competitive Advantage. IT Performance also mediates the relationship between Human Resource Management and Competitive Advantage. However, it is not significant in mediating the relationship between HPWS Capability and Competitive Advantage. These findings underscore that Human Resource Management (HRM) and High-Performance Work Systems (HPWS) play pivotal roles in shaping Information Technology (IT) performance and competitive advantage within companies, thus impacting the overall success and sustainability of companies.

DOI: 10.5267/j.ijdns.2024.5.016
Keywords: Human Resource Management, High-Performance Work Systems, Information Technology, Competitive Advantage

Open Access Article

2. **The influence of social media content marketing on consumer engagement: A mediating of the role of consumer cognition** , *Available on May, 2024*

Amged Saleh Shkeer, Abdel-Aziz Ahmad Sharabati, Tariq Samarah, Majed Issa Mohd Alqurneh and Ahmad Ali Atieh Ali PDF (650K)

Abstract: This research investigates how social media content marketing impacts customer engagement and it gives more weight to consumer cognition as an intermediary means. According to the study, digital communication has transformed significantly in our modern era, from simple communicative and content-sharing platforms to social media networks evolved into major marketing platforms. Organizations now fundamentally bring about transformations in their interaction with consumers depending on how they choose to use these public forums. As well, this paper begins to provide a comprehensive review of the social media content marketing literature, with topics such as augmented reality, credibility of content, user-generated content, and customer perceptions. The paper has a survey sample of 350 managers from relevant organizations, selected to provide a broad representative range across fields and industries. This study, under the Technology Acceptance Model, aims to understand better, how consumers accept and employ social media content marketing. Research questions to be addressed in this forthcoming paper include an investigation into how consumer belief serves to mediate the relation between social media content marketing and customer engagement Additionally, it aims to investigate the extent to which consumer cognition intervenes in this link, and whether consumers' beliefs moderate results of an interaction with social media platform contents source (such as reading a blog or watching a video). With this theoretical framework and the related literature, the project aims to provide significant insights and make a more successful marketing practice.

DOI: 10.5267/j.ijdns.2024.5.015
Keywords: Social media, Augmented Reality, Consumer Cognition, Behavior Affection, Jordan

Open Access Article

2. **The impact of digital advertising channels on the customer buying behavior: The moderating task of advertising strategies** , *Available on May, 2024*

Mohammed Nuseir and Ghaleb El Refae PDF (650K)

Abstract: Regulators and recent academics are now paying attention to digital marketing because it has become a complete

marketing resource that might propel a firm toward success. As a result, the current study explores the impact of several digital advertising channels, including mobile, e-mail, and digital retargeting, on customer purchasing behavior in the Information Technology (IT) business in the UAE. The current research also examines the moderating effects of marketing tactics at the intersection of mobile advertising, digital retargeting, e-mail marketing, and customer purchasing choices in the IT sector of the UAE. To collect data for this study quantitatively, questionnaires were employed to solicit information from respondents, which was then analyzed using smart-PLS. The findings showed that digital retargeting, mobile, and e-mail marketing positively affect customer purchasing behavior in the UAE's IT sector. The results also demonstrated that marketing tactics drastically reduced the associations between mobile, e-mail, and consumer purchasing decisions in the UAE's IT sector. This study gave policymakers recommendations on better focusing on digital advertising, which could boost the organization's success.

DOI: 10.5267/j.ijdns.2024.5.014
Keywords: Consumer Buying Decisions, Marketing Strategies, Mobile Marketing, Digital Retargeting, E-mail Marketing

Open Access Article

2. **Streamlining supply chains: An efficiency-driven permissioned blockchain framework for data reduction** , *Available on May, 2024*

Mohammed Amin Almaiah, Aitizaz Ali, Tayseer Alkhdour, Ting Tin Tin, Rommel AlAli and Theyazan Aldahyani PDF (650K)

Abstract: In the ever-evolving landscape of supply chain management, the quest for efficiency has become paramount. This abstract explores a groundbreaking solution that combines the power of permissioned blockchain technology with innovative data reduction strategies to redefine how supply chains operate. Traditional supply chain systems often grapple with data overload, causing delays, inaccuracies, and operational inefficiencies. However, this abstract presents a promising approach that unleashes efficiency by harnessing the capabilities of a permissioned blockchain. Through data reduction techniques tailored to the needs of supply chain management, this approach streamlines the flow of information while maintaining security and trust among participants. This paper seeks into the technical foundations of permissioned blockchains, highlighting their suitability for supply applications where confidentiality and

controlled access are imperative. Furthermore, it examines various data reduction methodologies, emphasizing their role in minimizing redundant data, optimizing communication, and enabling real-time decision-making. The impact of this innovative approach on supply chain stakeholders is profound. It reduces data related bottlenecks, enhances transparencies, and fosters collaboration among participants. Additionally, it provides a scalable framework adaptable to diverse supply chain ecosystems. As supply chain efficiency becomes increasingly important in our interconnected world, this permissioned blockchain-driven data reduction strategy offers a compelling vision for the future. It promises to unlock a new era of streamlined operations, cost savings, and improved customer satisfaction, ultimately shaping the next generation of supply chain management.

DOI: 10.5267/j.ijdns.2024.5.013
Keywords: Supply Chains, Efficiency, Permissioned Blockchain, Framework, Data Reduction, Supply Chain Optimization, Blockchain Technology

Open Access Article

2. **The effectiveness of cloud computing in developing critical thinking skills among early childhood students** , *Available on May, 2024*

Mohamad Ahmad Saleem Khasawneh PDF (650K)

Abstract: The main objective of this research was to find out how well cloud computing works for teaching kids in the early grades to think critically. Participants in the study were a group of early childhood students from schools in the Mafraq Governorate. The duration of the trial was set at one month. Sixty students participated in the study; thirty were randomly assigned to the experimental group and thirty to the control group. Following the intervention, the experimental group performed better than the control group on tests measuring reasoning, interpretation, analysis, and assessment skills. Both in the follow-up assessment and in the time immediately after the intervention, the experimental group and the control group did not vary from one another in terms of critical thinking skill scores.

DOI: 10.5267/j.ijdns.2024.5.012
Keywords: Cloud computing, Critical thinking skills, Early childhood students, Mafraq Governorate

Open Access Article

Factor affecting internet information credibility: The moderating effect of gender , *Available on May, 2024*

2. *Muhammad Alshurideh, Barween Al Kurdi, Issam Okleh, Khireddine Chatra, Thabet Ghazi Bader Al Omari, Haitham M. Alzoubi, Nidal Alzboun, Gouher Ahmed and Omer Jawad Abduljabbar* PDF (650K)

Abstract: This study provides an analytical view of the correlation between several factors that influence the credibility of information available through various sources on the Internet. The most critical factors include information quality, source credibility, argument strength, message credibility, and average credibility. Additionally, the study explores the impact of gender and years of experience as demographic variables on the nature and size of these relationships. The study relied on a critical review of previous related literature. In addition, it adopted an analytical approach using a sample of 300 Internet users through a questionnaire designed based on the study hypotheses. Most of these relationships were found to be at an average level, except for the relationship between source credibility and information credibility. No statistical indicators were observed. Consequently, the researchers acknowledge the need for caution when generalizing these results to society. The study also found that the gender of the recipient and the number of years of experience did not necessarily play a mediating role in the relationship between the tested factors and the credibility of information received via the Internet.

DOI: 10.5267/j.ijdns.2024.5.011
Keywords: Information credibility, Source credibility, Massage credibility, Argument strength, Medium credibility, Information quality, Mediator effect of gender

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Open Access Article

2. **The role of artificial intelligence in developing the accounting system in Jordanian Islamic banks** , *Available on May, 2024*

Mefleh Faisal Mefleh Al-Jarrah, Abdalla Mohammad khalaf Al

Badarin and Mohammad Zuhier Abdallah Almohammad PDF (650K)

Abstract: The current study aims to determine the role of artificial intelligence (AI) in developing the accounting system (AS) in Jordanian Islamic banks. Currently, Islamic banks in Jordan are included in the research population. Using a quantitative research approach, 128 workers of Islamic banks in Jordan were chosen as a sample for this study. The study used a survey questionnaire instrument that was created based on past relevant literature and studies to collect the required data. The results indicated that there is an influence of AI (big data, intelligent agents, expert systems and automation processes) on the development of the AS in Jordanian Islamic banks. Accordingly, the study recommends that to improve AS tasks and reduce associated costs, accountants and accounting companies should always increase their understanding of artificial intelligence.

DOI: 10.5267/j.ijdns.2024.5.010
Keywords: Artificial Intelligence (AI), Big Data, Intelligent Agents, Expert Systems, Automation Processes, Accounting System (AS) and Islam-ic banks

Open Access Article

2. **Assessing the accuracy of MT and AI tools in translating humanities or social sciences Arabic research titles into English: Evidence from Google Translate, Gemini, and ChatGPT** , *Available on May, 2024*

Saleh Al-Salman and Ahmad S. Haider PDF (650K)

Abstract: Breakthroughs and advances in translation technology by virtue of AI-powered MT tools and techniques contributed significantly to providing near-perfect translation. This study aims to evaluate the accuracy of three translation technologies (Google Translate, Gemini, and ChatGPT) in translating multidisciplinary Arabic research titles in the Humanities and Social Sciences into English. A corpus of 163 titles of Arabic research articles from various disciplines, including media studies, literature, linguistics, education, and political science, was extracted from a Scopus-indexed journal, namely Dirasat: Human and Social Sciences Series. The research methodology in the present study lends itself largely to Koponen's (2010) translation error strategy framework. Based on the data analysis, the findings showed that the renditions provided by these programs were categorically marked with either sense or syntax errors, which often rendered the translations inaccurate. Many polysemous terms with multiple related senses

were mistranslated. The results showed that the Gemini translations contained the least errors. In contrast, the human translations contained the least mistranslation and diction errors. Google Translate and ChatGPT, on the other hand, contained the highest number of equivalence-based errors. Unexpectedly, the human translations contained the highest number of syntactic errors, reflecting a lack of target language proficiency. The study's conclusions and findings would be beneficial to translators, students, and scholars who may consider translating their Arabic study research titles and abstracts through the most commonly used AI tools.

DOI: 10.5267/j.ijdns.2024.5.009
Keywords: AI translation, Machine translation, Research titles, Interdisciplinary research, Accuracy, Evaluation

Open Access Article

2. **Investigating the role of e-service quality and information quality on e-government user satisfaction in the immigration department** , *Available on May, 2024*

Koesmoyo Ponco Aji, Agung Sulistyo Purnomo, Intan Nurkumalawati, Anindito Rizki Wiraputra, Sri Kuncoro Bawono, Sohirin and Wilonotomo PDF (650K)

Abstract: This research aims to analyze variable service quality on e-government user satisfaction and analyze information quality variables on e-government user satisfaction at the immigration office. The research method used in this research is associative quantitative research which aims to determine the relationship between two or more variables. In this way, we can build a theory that functions to predict and control a phenomenon. The population in this study were all immigration office employees. In this research, an analysis model is used, namely Partial Least Square-Structural Equation Modeling (PLS-SEM). In this study, the number of respondents was 876 immigration office employees who used e-government. The sampling technique used in this research is non probability sampling. In this research, the data collection method used was the questionnaire method. The instrument used to measure this research variable is a 7-point Likert scale. Data processing in this research uses SmartPLS software. The stages of data analysis in this research are the outer model test which includes convergent validity, discriminant validity and composite reliability as well as inner model analysis, namely hypothesis testing. The results of this research are that variable service quality has a positive and significant relationship to e-government user satisfaction at the immigration office and

the information quality variable has a positive and significant relationship to e-government user satisfaction at the immigration office.

DOI: 10.5267/j.ijdns.2024.5.008
Keywords: e-service quality, Information quality, e-government, User satisfaction, Immigration office, PLS-SEM

Open Access Article

2. **Perceived overload in social networking sites affect the users' passive usage intention: A cognition-affect-conation approach** , *Available on May, 2024*

Yang Tian, Tak Jie Chan, Miew Luan Ng and Huan Na Liu PDF (650K)

Abstract: Social Networking Sites (SNS) play an important role in human psychological well-being. This research explores the effects of perceived overload on the passive usage intention of SNS among Malaysian users through SNS fatigue and anxiety by employing a Cognition-Affect-Conation (C-A-C) model. Cross-sectional survey research was carried out and the research acquired responses from 383 SNS users. Data was analyzed through PLS-SEM. The outcomes noted that perceived cognitive overload, perceived information overload, SNS fatigue, and anxiety are positive antecedents of SNS passive usage intention. The research brings valuable insights into the formation of passive usage intention of SNS and provides implications for service providers and users.

DOI: 10.5267/j.ijdns.2024.5.007
Keywords: Social Networking Sites, Cognition-Affect-Conation model, SNS fatigue, Anxiety, Psychological wellbeing

Open Access Article

2. **Beyond the swipe: Understanding the power of TikTok marketing-interaction, entertainment, and trendiness in shaping purchase intentions** , *Available on May, 2024*

Yunita Wijaya Handranata, Maria Grace Herlina, Leticia Soendoro and Qori Kamiliya PDF (650K)

Abstract: This study investigates the relationship between interaction, entertainment, trendiness, brand engagement, and purchase intention in the context of TikTok as a social media platform. Using a quantitative research approach, online questionnaires were distributed to 197 respondents who met specific criteria, including active usage of TikTok and being under 45 years old. The data collection period spanned from March 2023 to May 2023. Data analysis was conducted using variance-based structural equation modeling (PLS-SEM 4.0). The independent variables in the study are interaction (X1), entertainment (X2), and trendiness (X3), with brand engagement (Z) serving as the mediator variable and purchase intention (Y) as the dependent variable. The results revealed that interaction, entertainment, and trendiness significantly positively affect purchase intention, with brand engagement playing a moderating role in this relationship. This study sheds light on the influence of TikTok content attributes on consumers' purchase intention and underscores the importance of brand engagement as a key factor in shaping their purchasing decisions.

DOI: 10.5267/j.ijdns.2024.5.006
Keywords: TikTok, Social media, Purchase intention, Brand engagement, Consumer behavior

Open Access Article

2. **Exploring the role of e-learning, digital leadership and digital innovation behavior on schools' performance during society 5.0 era** , *Available on April, 2024*

Henny Suharyati, Emmeria Tarihoran, Khuriyah, Sonny, Lili Nurlaili, Caska Caska and Supardi PDF (650K)

Abstract: In this digital era, all human activities have moved towards digital. The digital era has provided significant changes in all aspects of life, one of which is the educational aspect. Digital technology has opened up new education opportunities but also presents challenges that must be faced. Almost all sectors, including education in the industry 5.0 era, have digitized, namely by utilizing sophisticated information technology. Era Society 5.0, is an era that will make it easier for human life to interact and transition to the digital era. Thus, the use of digital technology for every aspect of life, especially the education sector, is very necessary since it will reflect the level of competitiveness of a country. This research aims to analyze the relationship between e-

learning and performance, digital leadership and performance, and the relationship between digital innovation and performance. This type of research uses quantitative research methods. The population in this research is all high school teachers who have used e-learning platforms and have carried out digital innovation. The sampling technique used in this research was a simple random sampling technique and the total sample of respondents from this research was 489 teachers. The type of data used in this research is primary data and the data search tool used is an online questionnaire using a Likert scale. The data analysis is to use structural equation modelling. The results show that e-learning had a positive and significant relationship with performance, digital leadership had a positive and significant relationship with performance and digital innovation had a positive and significant relationship with performance.

DOI: 10.5267/j.ijdns.2024.5.005
Keywords: e-learning, Performance, Digital leadership, Digital innovation, School, PLS-SEM

Open Access Article

2. **The impact of data recovery criteria, data backup schedule and data backup prosses on the efficiency of data recovery management in data centers** , *Available on April, 2024*

Maen T. Alrashdan, Mutaz Abdel Wahed, Emran Aljarrah, Mohammad Tubishat, Malek Alzaqebah and Nader Aljawarneh PDF (650K)

Abstract: A large-scale cloud data center must have a low failure incidence rate and great service dependability and availability. However, due to several issues, such as hardware and software malfunctions that regularly cause task and job failure, large-scale cloud data centers still have high failure rates. These mistakes can have a substantial impact on cloud service dependability and need a large resource allocation to recover from failures. Therefore, it is important to have an efficient management of data recovery to protect organizations data from loss. This paper aims to study some factors that may improve the management of data recovery by using quantitative research design as a methodology. The results of hypothesis testing give strong evidence supporting the positive and significant correlations between the proposed hypotheses and the efficiency of data management recovery. This study finds that the presence of a data center in an organization demands the development of a solid plan for the most effective usage of a software program to handle data recovery.

DOI: 10.5267/j.ijdns.2024.5.004
Keywords: Data recovery, Data backup, Data center, Network security, Reliability

Open Access Article

2. **The mediating role of effort expectation on digital banking behavior intention in the Indonesian bank industry: An integration of UGT-UTAUT2** , *Available on April, 2024*

Wahyu Meiranto, Faisal Faisal and Etna Nur Afri Yuyetta PDF (650K)

Abstract: Using the frameworks of the Theory of Use and Gratification (UGT) and the Unified Theory of Acceptance and Use of Technology (UTAUT2), this study explores the factors that influence individual behavior and behavioral goals in the adoption of digital banking. Partial Least Square-Structural Equation Modeling (PLS-SEM) is used in the analysis of research data using the program SmartPLS 3.2.9 professional. There are 432 people in the research sample that filled out questionnaires. The results show that behavioral intentions are strongly influenced by the integration of UGT-UTAUT2 by 60.3%. Performance and effort expectations are influenced by cognitive needs, effort expectations are influenced by affective needs, and social influence is impacted by social needs. Behavioral intentions for the use of digital banking are shaped by a combination of factors such as price value, hedonic motivation, habits, facilitating conditions, and effort expectations. The relationship between behavioral intentions, affective and cognitive needs is mediated by effort expectations. In the context of using digital banking, habits and behavioral intentions are important factors that influence behavior; in contrast, cognitive needs, affective needs, performance expectations, and social influence have no direct effect on behavioral intentions.

DOI: 10.5267/j.ijdns.2024.5.003
Keywords: UTAUT 2, UGT, Behavioral Intention, Digital Banking

Open Access Article

2. **Evaluation of factors associated with the adoption of ICT in education using machine learning** , *Available on April, 2024*

Holgado-Apaza Luis Alberto, Aragon-Navarrete Ruth Nataly, Dioses-Córdova Ronald Román, Riva-Ruiz Raidith, Vidaurre-Rojas Pierre, Valles-Coral Miguel, Castellon-Apaza Danger David and Quispe-Layme Marleny PDF (650K)

Abstract: Information and Communication Technologies (ICT) affect all aspects of our daily lives. Using them is considered a symbol of modernization and social advancement. The global expansion and interconnection of ICT offers a significant opportunity to promote the advancement of humanity, bridge the digital gap and promote the growth of societies built on knowledge. In this study, we analyzed and identified the most influential factors in the adoption of ICT in education from the data set called “Final Survey-Digital Inclusion Teachers” of the Plurinational State of Bolivia, which consists of 871 instances and 189 columns. We performed feature selection by carefully combining the results of three feature selection methods: filter (chi-square, ANO-VA and mutual information), wrapper (RFE) and intrinsic (Classification And Regression Trees, Random Forest, Gradient Boosting and XGBoost). The results demonstrated that a teacher's motivation for curricular planning that includes ICT, teaching experience and the institutional environment are key factors in the adoption of these technologies in education. Furthermore, we identified that the Random Forest algorithm is the most appropriate for analyzing and predicting the adoption of ICT in education, we affirmed this after this algorithm obtained the highest values in four of the six metrics evaluated: a sensitivity of 77.7%, an F1 Score of 77.9%, a Cohen's Kappa coefficient of 60.8% and a Jaccard Score of 64.3%. These results suggest that Random Forest is the most effective algorithm to analyze the factors related to the adoption of ICT in educational environments.

DOI: 10.5267/j.ijdns.2024.5.002
Keywords: ICT adoption, Technology acceptance, Feature selection, Educational predictive analytics, Educational technology integration

Open Access Article

2. **The role of digital distrust, negative emotion and government policy on cyber violence during the digital era in Indonesia** , *Available on April, 2024*

Mohammad Fadil Imran and Hendra Gunawan PDF (650K)

Abstract: In the digital era the research study discusses the role of government policy, negative emotions and digital trust in cyber violence, therefore this research adds to the literature and provides references regarding the important role of government policy on cyber violence is very limited. This research aims to investigate the relationship between digital distrust and cyber violence, and the relationship between government policy and cyber violence. The research method used in this research is associative research. Associative research is research that aims to determine the relationship between the hubs of two or more variables. In this way, we can build a theory that functions to predict and control a phenomenon. The population in this study were all students who had studied using e-learning or digital platforms. In this study, the number of respondents was 543 high school students throughout Indonesia. The sampling technique used in this research is nonprobability sampling. In this research, the data collection method used was the questionnaire method. The instrument used to measure this research variable is a 5-point Likert scale. Data processing in this research uses SmartPLS software. The stages of data analysis in this research are the outer model test which includes convergent validity, discriminant validity and composite reliability as well as inner model analysis, namely hypothesis testing. The results of this research are that digital distrust has a positive and significant relationship to cyber violence, negative emotions have a positive and significant relationship with cyber violence, and government policy has a positive and significant relationship with cyber violence. This research adds to the literature and provides references regarding the important role of government policy, digital distrust, and negative emotions in cyber violence. Indonesia, the government needs to implement and evaluate new regulations related to cybercrimes. The government must establish new regulations to combat cybercrime.

DOI: 10.5267/j.ijdns.2024.5.001
Keywords: Digital Distrust, Negative emotions, Government policy, Cyber Violence, PLS-SEM, Indonesia

Open Access Article

2. **Factors affecting attitude to use metaverse technology application** , *Available on April, 2024*
Muhammad Alshurideh, Barween Al Kurdi, Issam Okleh, Khireddine Chatra, Thouraya Snoussi, Haitham M. Alzoubi, Nidal Alzboun and Gouher Ahmed PDF (650K)

Abstract: The concept of the “Metaverse” is a three-dimensional virtual world that relies on simulations of reality to represent real-life experiences, and it can be classified as the next generation in using the Internet. In this research, we will examine the factors that may influence user acceptance of metaverse and the relationships between these variables highlight how different factors can be examined. The goal of understanding these factors is to determine how Metaverse developers can improve this technology to meet user expectations and enable users to better interact with this technology. To achieve this goal, a sample of 312 students’ participants from different age groups was selected to respond to an online Likert scale questionnaire ranging from) strongly disagree equal) to (strongly agree equal 5). The study found that perceived enjoyment significantly positively influences technology metaverse application. Moreover, perceived curiosity and perceived self-efficacy positively influence technology application metaverse transitions. In addition, perceived ease of use (PEOU) and perceived usefulness (PU) positively influence the attitude toward using the Metaverse technology/application, which means that all the previous factors have an overall positive effect on the attitude toward using the Metaverse technology application.

DOI: 10.5267/j.ijdns.2024.4.018
Keywords: Metavers, Perceived Usefulness, Perceived Ease of Use, Perceived Self-efficacy, Perceived Curiosity, Perceived pleasure

Open Access Article

2. **Antecedents of adoption blockchain: Empirical study in Jordanian firms** , *Available on April, 2024*

Ra'ed Masa'deh,Lina H. Warrad, Khaldoon Jahmani, Dmaithan Almajali, Salwa AL Majali, and Ahmad Tawfig Al-Radaideh PDF (650K)

Abstract: The increasing popularity of intelligence systems in accounting and auditing domains has led to the interest towards drivers of blockchain technology adoption. Consequently, this empirical study inspected the antecedent constructs with direct and indirect impact on blockchain technology adoption in the accounting domain. Data were gathered from 346 accountants employed in Information technology (IT) companies, through an online survey. Structural equation modeling with Smart PLS 4 was employed for research model testing. Out of thirteen proposed direct hypotheses, twelve were accepted. Mainly, the

obtained empirical results confirmed effort expectancy impacting blockchain technology adoption the most. Furthermore, the obtained results also confirmed the mediation role of effort expectancy and performance expectancy.

DOI: 10.5267/j.ijdns.2024.4.017
Keywords: Intelligent Systems, Blockchain Technology, Accounting Systems and Business Intelligence

Open Access Article

Identifying variables influencing the adoption of artificial intelligence big data analytics among SMEs in Jordan , *Available on April, 2024*

2. *Belal Mathani, Hamid Safyyih Ajrash, Ahmad Barakat Dalaeen, Khaled Yousef Alshboul, Hazem Almahameed, Mohammad Haider Alibraheem, Amin Khalifeh, Mohammad Issa Alzoubi and Ahmad Y. A. Bani Ahmad* PDF (650K)

Abstract: The research investigates the link between technology, organization, and environment, and the uptake of artificial intelligence among SMEs in Jordan. The objective is to get a deeper understanding of the factors that promote or hinder enterprises' use of artificial intelligence during the recruitment of leaders. A total of 295 participants, who were owners or managers in several SME sectors, manufacturing, including services, construction, and agriculture, were selected via judgmental sampling. Data collection was conducted utilizing a survey instrument, and the collected data was processed employing Smart PLS. The findings demonstrated a substantial correlation between attitude toward artificial intelligence uptake and factors such as relative advantage, complexity, top management commitment, and organizational preparedness. Nevertheless, factors like competitive pressure, external assistance, a favorable regulatory environment, compatibility, and staff flexibility do not significantly influence the attitude toward the uptake of artificial intelligence. In summary, these findings provide valuable insights for decision-making and resource distribution. They underscore the significance of factors such as relative advantage, complexity, top management commitment, and organizational readiness in achieving goals in the field of artificial intelligence. Additionally, they identify areas where efforts may not result in significant effects. The practical ramifications and future study paths are emphasized according to current technological needs.

DOI: 10.5267/j.ijdns.2024.4.016

Keywords: TOE model, Relative advantage, Top management commitment, Complexity, External assistance

Open Access Article

2. **The effect of cloud computing on the quality of financial statements: The mediating role of internal control system** , *Available on April, 2024*

Rawan Almanaeseh, Ahmad Marei, Rania Al Zu'mot, Sad Abu alim, Esraa Esam Alharasis, Dina Alkhodary and Abdalwali Lutfi PDF (650K)

Abstract: The study aimed to evaluate how cloud technology implementation would affect Jordanian industrial businesses' financial statements' integrity across a range of variables (financial condition, income, cash flow, owners' equity). The investigation involved employees from financial and internal audit departments, including various job titles. A random sample of 150 questionnaires was distributed among the study population, with a 96% response rate (145 retrieved). Respondents were scored using a Likert five-point scale on the 44-paragraph questionnaire. To accomplish its goals, the study used a descriptive-analytical methodology and statistical techniques such as path analysis (using AMOS) and simple linear regression analysis (using SPSS). According to the study, the implementation of cloud accounting has a statistically significant effect on the quality of financial statements by Dimension (statement of financial position, income statement, statement of cash flows, and list of equity), according to the study. Applying cloud accounting has a statistically significant effect on the internal control system, and the internal control system has a statistically significant impact on the accuracy of financial statements. Furthermore, cloud accounting has a statistically significant impact on the quality of financial statements in Jordanian industrial companies through the internal control system as an intermediate variable. The study made several recommendations in light of the earlier findings, the most significant of which are: determining the internal control system's current state both before and after cloud accounting was implemented; creating and executing a robust internal control system compliant with international accounting standards; and assessing the suitability of cloud accounting solutions through thorough evaluations. The report also emphasized how crucial it is to set up ongoing audit and internal control systems to evaluate how well the internal control and cloud accounting systems are working together.

DOI: 10.5267/j.ijdns.2024.4.015

Keywords: Cloud technology Application, Financial Statements Quality, Statement of Financial Position, Income Statement, Cash Flow Statement, Owners Equity Statement, Internal Control System

Open Access Article

2. **Innovative IoT security protocol: High-accuracy device identification and resilience against credential compromise (HADIRACC)** , *Available on April, 2024*

Joseph Teguh Santoso, Mars Caroline Wibowo and Budi Raharjo

PDF (650K)

Abstract: The IoT ecosystem faces increasingly complex security challenges due to the rapid growth of global IoT devices. Security risks related to device identification and credential compromise are on the rise, especially with the proliferation of IoT devices in various aspects of life. This research highlights the need to address these vulnerabilities through the development of robust security protocols, aiming to create a more secure IoT ecosystem and enhance user trust in this technology. The objective of the research is the development of an innovative IoT security protocol; High-Accuracy Device Identification and Resilience Against Credential Compromise (HADIRACC). This paper contributes significantly to enhancing the security and reliability of the IoT ecosystem. The research methods employed encompass the development of security protocols, the development of a proximity-based solution, and the classification of IoT devices using data processing techniques and machine learning-based classification. This study involves the collection and pre-processing of datasets, training different classifiers using 70% of the dataset, and testing the classifiers using the remaining 30%. The proposed protocol can effectively enhance the security of IoT devices by addressing various scenario-based attacks. Furthermore, the results of the analysis of the five classifiers used in this study indicate that Random Forest has the highest F1 score accuracy, reaching 88.8%. This suggests that Random Forest, as a classifier, can make the most accurate predictions compared to other classifiers.

DOI: 10.5267/j.ijdns.2024.4.014
Keywords: IoT Security, Device Authentication, Machine Learning, Proximity-based Authentication

Open Access Article

2. **Linking the role of e-commerce and financial literacy on MSME's sustainability performance during the digital era** , *Available on April, 2024*

Sri Dewi Wahyundaru, Windhu Putra, Mukti Wibowo, Elvia Ivada, Preatmi Nurastuti, Cornelius Damar Sasongko, Moh. Miftachul Choiri and Dwi Yuzaria PDF (650K)

Abstract: In recent years, E-Commerce has experienced a very significant increase. E-commerce provides a broad overview of technology, processes and practices that can be carried out without using paper as a means of transactions. E-commerce has had a big influence on the social and economic growth of today's society. Business management's ability to manage financial information is an important indicator in influencing Micro, Small and Medium Enterprises' (MSME's) business performance. Good financial management behavior will result in good fund management effectiveness. This research aims to analyze the relationship between E-Commerce and the performance of MSMEs and analyze the relationship between financial literacy and its positive and significant relationship with the performance of MSMEs. The research method uses a descriptive method with a quantitative approach. The population in this research are MSMEs managers who have comprehensive knowledge regarding the operations and performance of MSMEs. In this study, researchers used a simple random sampling technique with a sample size of 478 MSME managers. Data analysis in this research uses the Partial Least Square (PLS) technique which is an alternative method based on the variance of the variables used. The stages of data analysis are validity testing, reliability testing and hypothesis testing. The independent variables in this research are e-commerce and financial literacy, while the dependent variable is MSME performance. The results of this research show that e-commerce has a positive and significant relationship with MSME performance and financial literacy has a positive and significant relationship to MSME performance. In addition, e-commerce has a significant influence on the performance of MSMEs because the presence of e-commerce is one of the marketing alternatives used to reach more customers. MSMEs have the same opportunity to use e-commerce as an alternative to maximize performance. However, not all MSMEs have the capability to use and utilize e-commerce optimally. This is because financial literacy is knowledge in managing finances well. After all, knowing good financial management will make it easier to make economic decisions since the higher the level of financial literacy, the MSME players can optimize performance.

DOI: 10.5267/j.ijdns.2024.4.013

Keywords: e-commerce, Financial literacy, Performance, MSMEs, PLS-SEM

Open Access Article

2. **Key aspects of personal brand identity in social media commerce: Impact on successful personal branding** , *Available on April, 2024*

Nichanan Kongsri and Pensri Jaroenwanit PDF (650K)

Abstract: This study explores the factors influencing personal brand identity and their impact on successful personal branding. It examines the positive influence of social media usage, self-expression, professionalism, and self-disclosure on personal brand identity, while also considering the inconsistent findings regarding the role of self-efficacy. The study finds that social media usage, self-expression, professionalism, and self-disclosure play crucial roles in developing a strong personal brand identity, which is essential for achieving successful personal branding. However, the findings on self-efficacy's influence on personal brand identity are inconsistent with previous research. This study contributes to the understanding of personal brand identity and provides valuable insights for individuals and organizations seeking to develop and maintain strong personal brands.

DOI: 10.5267/j.ijdns.2024.4.012
Keywords: Personal brand identity, Personal branding, Social media usage, Self-expression, Professionalism, Self-disclosure, Self-efficacy

Open Access Article

2. **The impact of attitude, subjective norms, perceived behavioral control, and perceived risks on intention in online shopping in Jordan** , *Available on April, 2024*

Muath Ayman Tarawneh, Malek Alsoud and Muath Maqbool Albhirat

PDF (650K)

Abstract: Previously, studies reported inconclusive findings while analyzing the influence of factors affecting online purchase intention. Also, most studies were conducted in the context of developed countries, limiting us to a specific context. Hence, for

comprehensive understanding, this study aims at examining the factors affecting the online purchase intention in the e-commerce industry of Jordan. The survey was conducted to collect data from university students in Jordan. Structural equation modeling was employed to analyze the data. Findings show that attitude, subjective norms, perceived behavioral control are positively associated with online purchase intention. However, perceived risks are negatively associated with online purchase intention. Although all factors are significantly related to online purchase intention, the attitude has a greater influence. This study adds value to the theory of planned behavior and consumer behavior by examining attitude, subjective norm, perceived behavioral control, and perceived risks as important predictors of online purchase intention. Besides, this study suggests that online retailers must keep their commitments, promises, and customers' interests in mind while developing e-commerce strategies.

DOI: 10.5267/j.ijdns.2024.4.011
Keywords: Attitude, Subjective Norm, Perceived Behavioral Control, Perceived Risks, Online Purchase Intention, Theory of Planned Behavior

Open Access Article

3. **The impact of Instagram content marketing on cognitive engagement, affection, and behavior** , *Available on April, 2024*
Shafig Al-Haddad, Abdel-Aziz Ahmad Sharabati, Ahmad Yacoub Nasereddin, Madeleine Alyah, Omar Mehyar and Ahmad Ali Atieh Ali
PDF (650K)

Abstract: The current research aims to expose the value of Instagram's features and content and investigate how cognitive functions mediate the relationship between Instagram's content-related elements (informative material, user-generated content, augmented reality content, entertainment, trustworthiness, sociability) and consumer affection and behavior. This study employed a random sample strategy and gathered 292 responses. The tool AMOS 22 (Analysis of a Moment Structure) examined the data efficiently. Results show that all Instagram content marketing elements affect cognitive engagement, where augmented reality content has rated the highest effect, then user-generated content, trustworthiness, informative material, entertainment, and sociability, consequently. Then cognitive engagement affects affection and behavior.

DOI: 10.5267/j.ijdns.2024.4.010

Keywords: Instagram Content Marketing, Cognitive Engagement, Affection, Behavior

Open Access Article

4. **Digital transformation in SMEs: Assessing the impact of big data capabilities on project success, business continuity, and sustainability** , *Available on April, 2024*

Amani Abu Rumman, Mohammad A.K. Alsmairat, Rawan Alshawabkeh and Lina Al-Abbadi PDF (650K)

Abstract: During the innovation era and in the highly competitive environment, big data capabilities (BDCs) play a pivotal role in shaping competitive dynamics; the influence of these technologies on small and medium-sized enterprises (SMEs) operating in the retail sector is critically significant. This study is specifically focused on the retail industry, with a particular emphasis on how BDCs impact the project success, business continuity, and sustainability of SMEs within this industry. Our theoretical model was tested using a survey of 300 operations managers working in SMEs in the retail sector in the Middle East. PLS-SEM was conducted to analyze our collected data. Our results reveal that BDCs enhance project success and promote sustainability practices. The findings also reveal that BDCs have no impact on business continuity. By shedding light on the nuanced impact of BDCs on SMEs in the retail sector, this study contributes valuable insights to the existing literature, offering a deeper understanding of how these technological capabilities can drive success and sustainability in a highly competitive market environment.

DOI: 10.5267/j.ijdns.2024.4.009
Keywords: Big data capabilities, Digital transformation, Project success, Business continuity, Sustainability

Open Access Article

5. **Investigation of the role of internet marketing, word of mouth communication and brand awareness on purchasing decisions: An empirical study in online stores** , *Available on April, 2024*

Tita Hariyanti, Mulyono, Eti Setiawati, Gustiarti Leila, Hadi Purnomo, Nicko Albart, Yogi Makbul and Indarti Indarti PDF (650K)

Abstract: This research aims to investigate the role of internet marketing, word-of-mouth and brand awareness on purchasing decisions in online stores. The respondent sampling technique used in this research is a non-probability sampling technique, which uses a purposive sampling technique. The responses to this research were from 468 online store consumers. Measurements of "Internet Marketing", "Word of Mouth Communication", "Brand Awareness" and "Purchasing Decisions" were carried out using a seven-point Likert scale, ranging from strongly agree (1) to strongly disagree (7). In this research, the data was analyzed using the Partial Least Square (PLS) method with SmartPLS version 3.0 software. The stages of research data analysis are outer model testing, namely unified validity and reliability, inner model testing and hypothesis testing. Based on the results of data analysis, it is concluded that internet marketing, word-of-mouth and brand awareness had positive and significant effects on purchasing decisions. Better internet marketing will improve consumer purchasing decisions, brand awareness plays an important role in consumer purchasing decisions, and consumers will carry out word-of-mouth activities and tell other people about consumer experiences after consuming products, electronic word of mouth can help consumers in making buying decisions. Based on the results of data analysis, the study provides managerial implications as follows: online stores should evaluate the Internet marketing strategy used by the company by looking for information about what is currently trending among the public and forming a special team to carry out Internet marketing strategies to make them more attractive and creative and provide more complete information regarding products are marketed so that they attract consumers to make purchasing decisions.

DOI: 10.5267/j.ijdns.2024.4.008
Keywords: Internet Marketing, Word of Mouth Communication, Brand Awareness, Purchasing Decisions, Online Stores