The Impact of Digital Marketing, Market Orientation, Entrepreneurial Competencies, and Entrepreneurship Characteristics on the Fashion MSMEs Performance in Yogyakarta

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ARTICLE INFORMATION	ABSTRACT

The creative economy sector has been a key driver of economic growth, with the fashion-textile and clothing industry being a significant component. However, businesses in this sector face numerous challenges as they strive to remain competitive within the MSME ecosystem. The objective of this study is to examine the impact of digital marketing, market orientation, entrepreneurial competence, and entrepreneurial characteristics on the performance of fashion SMEs in Yogyakarta. The research sample consists of 100 respondents, selected using maximum likelihood estimation. The methodology employed in this study is Structural Equation Modeling (SEM) with SMART PLS 3.2.9. The results indicate that digital marketing and market orientation have a significant positive effect on MSME performance, while entrepreneurial competence does not show a significant impact. Furthermore, entrepreneurial characteristics are found to enhance the performance of MSMEs. In conclusion, the findings highlight the importance of digital marketing, market orientation, and entrepreneurial characteristics in improving the performance of fashion SMEs, providing valuable implications for business strategies within this sector.

Keywords: Digital Marketing; Entrepreneurial Characteristics; Entrepreneurship Competence; Market Orientation; MSME Performance

INTRODUCTION

Digital marketing has become a crucial tool for businesses, especially in supporting community-driven initiatives. With the transition from traditional to modern marketing methods, digital marketing offers the advantage of enabling communication and transactions anytime and anywhere, reaching a global audience. The increasing number of social media users presents an opportunity for micro, small, and medium enterprises (MSMEs) to grow by leveraging smartphones and online platforms. Digital marketing is particularly advantageous for new businesses because it is cost-effective, eliminates the need for physical storefronts, can be managed independently with minimal staff, operates 24/7, and offers broad market reach through platforms like Instagram, Facebook, Twitter, TikTok, WhatsApp, and websites.

According to the Indonesian Internet Service Providers Association (APJII, 2024), internet users in Indonesia range from ages 10 to 75, making up nearly half of the country's total internet users. This highlights the significant role of the digital-native generation, who are highly skilled in using internet-based technologies, in shaping the country's online landscape. As of 2024, Indonesia has 221.56 million active internet users, with 120 million engaging in social media (Ministry of Communication and Information Technology of Indonesia [Kominfo], 2024). Antonio and Astika (2019) suggest that digital marketing strategies, such as online promotions and social media engagement, can enhance the perceived value of products like batik cloth, thereby influencing purchasing decisions among millennials.

Market orientation refers to a company's focus on understanding and responding to market needs, promoting and disseminating relevant information, and adjusting to market dynamics to ensure strong performance (Jaworski & Kohli in Alfirevic et al., 2024). A strong market orientation helps businesses understand consumer preferences, competitive strategies, and market trends, all of which are vital for improving performance. In contrast, a lack of market orientation can result in ineffective strategies and poor performance (Morgan & Anokhin, 2020).

Entrepreneurial competencies, including knowledge, skills, and attitudes like business ethics, financial management, time management, leadership, and decision-making, are key factors in gaining a competitive advantage (Udoh et al., 2017). Small business performance is influenced by both individual entrepreneurial competencies and the organizational environment (Yusuf, 1995). For MSME owners, developing entrepreneurial characteristics such as leadership and decision-making skills is crucial for maintaining competitiveness and ensuring success (Sarwoko et al., 2013). Therefore, cultivating these competencies is essential for driving performance and avoiding business failure.

Individuals with entrepreneurial characteristics are typically self-motivated, task-oriented, risk-taking, demonstrate leadership, and are future-focused. However, it is only those with an entrepreneurial mindset who can effectively apply these traits to their work (Merredith et al., 2002).

Data from the Central Agency of Statistics of Yogyakarta Province (BPS Provinsi Yogyakarta, 2024) shows that the textile and textile processing industry ranks second in Yogyakarta, accounting for 17.3% of the region's economy. This highlights the challenges fashion business owners face in maintaining their operations and competitiveness within the MSME sector. Therefore, fashion entrepreneurs in Yogyakarta must strengthen their digital marketing efforts, market orientation,

competencies, and unique entrepreneurial characteristics to ensure continued growth and success.

Several empirical studies align with the goals of this research and are expected to refine and support its conceptual framework. While many studies have explored topics like digital marketing, market orientation, entrepreneurial competencies, and their impact on MSME performance, this study differs by focusing specifically on SMEs in the fashion sector in DI Yogyakarta. It also examines the combined effect of digital marketing, market orientation, entrepreneurial competencies, and entrepreneurial characteristics on MSME performance in the clothing industry.

The aim of this study is to evaluate whether these variables significantly impact the performance of MSMEs in the fashion sector, which includes businesses engaged in the production and sale of clothing, traditionally through direct sales and increasingly through digital marketing channels. The significance of this research lies in its focus on a specific sector, the fashion industry in DI Yogyakarta, which has received limited attention in existing studies. By investigating the combined influence of digital marketing, market orientation, entrepreneurial competencies, and entrepreneurial characteristics on the performance of fashion SMEs, this study provides valuable insights into the factors that drive success in a competitive and rapidly evolving market. The findings are expected to offer a deeper understanding of how these variables interact and contribute to the performance of MSMEs, particularly in the context of digital transformation. This research makes a significant contribution by expanding the theoretical framework surrounding MSME performance in the fashion sector and providing practical implications for entrepreneurs and policymakers looking to enhance the competitiveness of small businesses in Indonesia's creative economy.

LITERATURE REVIEW

MSMEs Performance
MSMEs are widely recognized as vital contributors to economic development, job creation, and poverty alleviation globally (Islam et al., 2011). In both developing and developed countries, MSMEs play an integral role in fostering entrepreneurship, innovation, and regional development (Organisation for Economic Co-operation and Development [OECD], 2017). In Indonesia specifically, MSMEs are central to economic policy due to their significant contribution to GDP and employment generation, especially in rural and semi-urban areas (Tambunan, 2019).

Omowole et al. (2024) emphasize that in emerging economies, MSMEs are pivotal for reducing unemployment and stimulating equitable economic growth. Their performance, however, is not uniform and depends on various internal and external factors. Performance can be assessed through financial metrics (e.g., revenue growth, profitability), operational indicators (e.g., efficiency, productivity), and strategic metrics (e.g., market expansion, innovation capability) (Kaplan, 2012).

Despite their importance, MSMEs face numerous constraints, including limited access to finance, inadequate infrastructure, and insufficient managerial skills (World Bank, 2020). External supports such as government policies, market access, and technology adoption are therefore critical to enhancing their performance. Understanding the multidimensional nature of MSME performance helps in formulating strategies that ensure their sustainability and scalability.

Digital Marketing

Digital marketing is the strategic application of digital technologies and online platforms to promote products and services. It encompasses a variety of tools, including social media, search engines, email campaigns, and websites (Chaffey & Ellis-Chadwick, 2019). Unlike traditional marketing, digital marketing enables businesses to generate measurable results and engage with customers in real-time, thereby improving interaction, engagement, and conversion rates.

For MSMEs, digital marketing offers a cost-effective way to reach broader audiences and compete more effectively. Apulu and Latham (2011) highlight that MSMEs can gain a competitive edge by leveraging digital platforms, while Edwy et al. (2022) note that MSMEs using digital marketing tend to outperform those relying solely on conventional approaches. Digital tools also provide valuable analytics, helping businesses refine their strategies and optimize return on investment. This became especially critical during the COVID-19 pandemic, as digital platforms played a key role in maintaining customer relationships (Sumarlinah et al., 2022).

Beyond promoting visibility, digital marketing fosters trust and customer loyalty—key factors for MSME growth. However, successful digital marketing implementation requires a blend of digital literacy, technological infrastructure, and a well-defined content strategy. Many MSMEs face barriers such as limited budgets and a lack of digital skills, which hinder their ability to fully leverage digital tools. To overcome these challenges, targeted training programs and supportive policy frameworks are essential (Krisnaresanti et al., 2022; Laudon & Traver, 2020).

Market Orientation

Market orientation is a strategic business philosophy centered on understanding and addressing customer needs while staying attuned to market dynamics (Blankson et al., 2013). It is typically defined by three core components: customer orientation, competitor orientation, and inter-functional coordination (Narver & Slater, 1990). This approach places customer value at the core of an organization's strategy, enabling businesses to design more relevant products, enhance customer satisfaction, and foster lasting relationships.

Research has consistently shown that firms embracing market orientation tend to be more adaptive, innovative, and capable of maintaining competitive advantages—particularly in fast-paced, unpredictable environments (Jaworski & Kohli in Alfirevic et al., 2024). For MSMEs, which often face constraints in terms of capital, manpower, and access to markets, market orientation offers a focused way to direct limited resources toward high-impact, value-driven initiatives.

Moreover, market orientation supports organizational learning and responsiveness, which are essential for long-term viability and growth in evolving markets (Baker & Sinkula, 2007). As MSMEs aim to scale, aligning their strategies and operations with shifting consumer expectations becomes a key factor in achieving sustainable success.

Entrepreneurial Competencies

Entrepreneurial competence encompasses the combination of skills, knowledge, and attitudes that empower individuals to successfully start, manage, and grow a business (Mangkunegara, 2005; Suryana, 2006). These competencies are critical in shaping an individual's entrepreneurial intention, with attributes such as opportunity recognition, risk-taking, and networking playing particularly influential roles (Sandroto et al., 2024). Competent entrepreneurs are more adept at identifying opportunities, leveraging resources, and navigating uncertain environments (Man et al., 2002). Core

competencies often include strategic thinking, financial literacy, leadership, communication, and sound decision-making.

Tiwari and Lenka (2016) highlight the importance of these competencies in attracting investment, building strategic partnerships, and maintaining smooth operations. Entrepreneurs who possess strong competencies tend to be more innovative and responsive, allowing them to tackle environmental challenges with agility and foresight. Furthermore, entrepreneurial competence directly impacts firm performance—especially in small businesses where the entrepreneur plays a central role in day-to-day operations (Mitchelmore & Rowley, 2010). To remain competitive and sustain business growth, entrepreneurs must commit to continuous learning and skill development, ensuring they evolve alongside dynamic market demands.

Entrepreneurship Characteristics
Entrepreneurial characteristics refer to the innate or acquired traits that shape an individual's ability to initiate, manage, and grow a business. Zimmerer and Scarborough (2005) identify key characteristics such as risk-taking, resilience, innovation, leadership, and vision as essential to entrepreneurial success. Drucker (1985) offers a complementary perspective, arguing that entrepreneurship is primarily about recognizing and seizing opportunities—not simply taking risks. He underscores the importance of systematic innovation and disciplined execution, where entrepreneurs strategically minimize risk through careful analysis and thoughtful planning.

Empirical studies further support the idea that certain personal traits significantly influence entrepreneurial outcomes. For example, Rayawan and Efrata (2017) found that individuals with a strong internal locus of control and a high need for achievement tend to perform better in entrepreneurial endeavors. Traits such as proactiveness, tolerance for ambiguity, and self-motivation also empower entrepreneurs to make decisive moves, persist through challenges, and maintain momentum in the face of uncertainty.

Within the MSMEs context, these characteristics are especially critical, as entrepreneurs often take on multiple responsibilities and directly shape the firm's strategic direction. Cultivating entrepreneurial traits through education, mentorship, and real-world experience enhances the likelihood of long-term business sustainability and growth.

Hypotheses Development
Digital Marketing
Digital marketing plays a pivotal role in modern business, especially for MSMEs seeking cost-effective ways to reach a wider audience. Susanto (2017) defines digital marketing as the use of digital channels, including social media, websites, and online advertising, to promote products and services. Unlike traditional media, digital marketing offers real-time engagement and performance metrics, making it a more agile and measurable approach.

Apulu and Latham (2011) emphasize that MSMEs leveraging digital tools gain competitive advantages through improved visibility, better customer communication, and broader market access. Nofrisel et al. (2023) further support the idea that MSMEs utilizing digital marketing tend to outperform those that do not integrate technology into their operations.

These perspectives suggest that digital marketing equips MSMEs with the tools needed to enhance market presence and operational efficiency, which are critical for improved performance. Therefore, the following hypothesis is proposed:

H1: MSME performance is positively impacted by digital marketing.

Market Orientation

Market orientation is considered a fundamental driver of business success, particularly for small enterprises operating in competitive markets. Blankson et al. (2013) define market orientation as a customer-centric approach that focuses on understanding and fulfilling customer needs. This involves continuous innovation, responsiveness to market dynamics, and the ability to deliver superior customer value.

By fostering a culture of customer awareness and agility, MSMEs can develop strategies that align with market demands, enhance customer satisfaction, and differentiate themselves from competitors. This approach not only strengthens relationships with customers but also supports long-term sustainability.

Given the increasingly dynamic and customer-driven market environment, particularly in industries such as apparel and retail, adopting a market orientation is essential for business growth. Thus, the following hypothesis is developed:

H2: MSME performance is positively impacted by market orientation.

Entrepreneurial Competencies

Entrepreneurial competencies encompass the skills, knowledge, attitudes, and behaviors that enable entrepreneurs to navigate complex business environments. Mangkunegara (2005) and Suryana (2006) highlight that entrepreneurial competence plays a critical role in achieving superior performance by equipping entrepreneurs with the ability to adapt, innovate, and lead effectively.

Tiwari and Lenka (2016) further argue that entrepreneurial competencies are essential for attracting capital, developing business strategies, and managing resources efficiently. These competencies support decision-making, risk management, and long-term planning—core elements in MSME sustainability and success.

Given the multifaceted challenges MSMEs face, particularly in resource-constrained environments, entrepreneurial competencies become a vital factor in ensuring business viability. Hence, the following hypothesis is formulated:

H3: MSME performance is positively impacted by entrepreneurial competencies.

Entrepreneurship Characteristics

Entrepreneurial characteristics refer to the personal traits and behaviors that influence how entrepreneurs initiate, manage, and grow their businesses. Zimmerer and Scarbrough (2005) describe entrepreneurs as opportunity-seekers who embrace uncertainty in pursuit of profit and innovation. Drucker (1985) adds that entrepreneurs are not necessarily risk-lovers but are motivated by opportunities and learning from failures.

Common traits such as determination, creativity, resilience, and leadership have been linked to entrepreneurial success. These characteristics enable individuals to take initiative, respond to setbacks with agility, and maintain focus on long-term goals.

In the context of MSMEs, where the entrepreneur's role is often central to the business, such traits directly influence organizational direction and adaptability. Accordingly, the following hypothesis is proposed:

H4: MSME performance is positively impacted by entrepreneurship characteristics.

Conceptual Framework
An explanation of the connections between related ideas or variables in research is called a conceptual framework, which is used to determine and describe the relationships between the variables being examined. The primary focus of this investigation is the influence of the independent variables—Digital Marketing, Market Orientation, Entrepreneurial Competencies, and Entrepreneurship Characteristics—on the dependent variable, MSME Performance. Thus, Figure 1 depicts the conceptual framework of our investigation.

Figure 1. Conceptual Framework
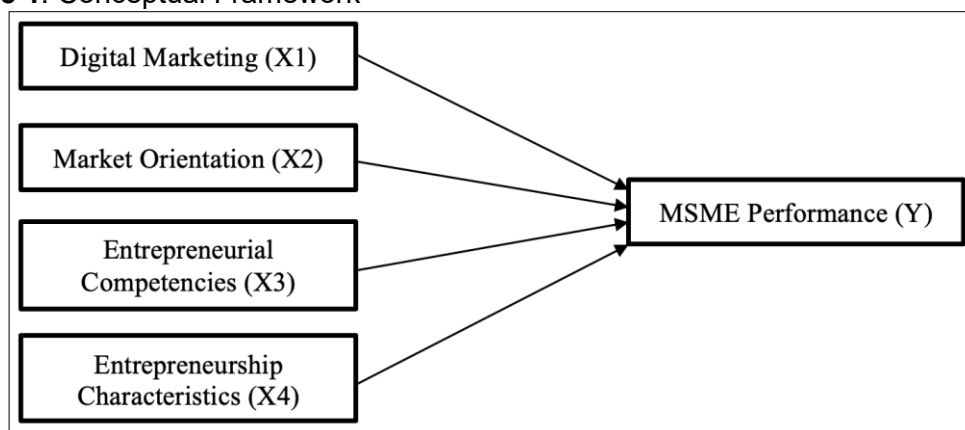
RESEARCH METHOD

This study is quantitative research using the Structural Equation Modeling (SEM) approach to explore causal relationships between variables such as digital marketing, market orientation, entrepreneurial competency, and entrepreneurial characteristics, all of which are used to assess business performance. Data was collected through a survey of MSMEs in the clothing industry in DI Yogyakarta, with a questionnaire based on operational variables and a Likert scale.

Purposive sampling was applied, selecting respondents aged 18-45, residing in DI Yogyakarta, and owning a business in the fashion sector. The sample size was set at 100 respondents, which was in line with the guidelines for SEM analysis, ensuring it was adequate for the Maximum Likelihood estimation technique. A total of 100 questionnaires were distributed, and all 100 were returned and completed, allowing for a full response rate of 100%. The questionnaire includes sections on the respondents' personal data and questions related to the research variables defined by the author. This research utilizes the SEM approach through Partial Least Squares (PLS). The data analysis is performed using SMART PLS 3.0 software. The tests applied in this study are as follows.

Outer Model
To ensure the validity and reliability of the measurement model in SEM-PLS, both convergent and discriminant validity must be assessed. Convergent validity evaluates whether indicators that are supposed to measure the same construct are indeed correlated. This can be assessed using two main criteria: the loading factor and the Average Variance Extracted (AVE). According to Sarwono (2014), an indicator is considered valid if it has a loading factor greater than 0.70, indicating a strong relationship with its respective construct. Additionally, as Garson (2016) notes, the AVE should exceed 0.50 to confirm that the construct explains more than half of the variance of its indicators, thus supporting convergent validity.

Discriminant validity, on the other hand, ensures that constructs are truly distinct from one another. This can be evaluated through the Fornell-Larcker criterion and cross-loading analysis. The Fornell-Larcker approach compares the square root of the AVE of each construct with the correlations it has with other constructs. For discriminant validity to be established, the square root of the AVE must be greater than these correlations (Garson, 2016). Meanwhile, the cross-loading method requires that each indicator has the highest loading on its corresponding construct compared to other constructs, reinforcing that it is uniquely associated with its intended factor.

In terms of the inner model assessment, several key metrics are used to evaluate the structural relationships among constructs. First, the R-square (R²) value represents the coefficient of determination for endogenous variables, indicating how well independent constructs explain the variance in a dependent construct. According to Chin (1998), R² values are interpreted as follows: 0.67 signifies a strong level of explanation, 0.33 is considered moderate, and 0.19 indicates a weak influence.

Next, the effect size (f²) is used to assess the individual impact of a predictor construct on a dependent variable. As stated by Hair et al. (2014), an f² value of 0.02 represents a weak effect, 0.15 indicates a moderate effect and 0.35 or higher suggests a strong effect size.

The Q-square (Q²) value serves to evaluate the predictive relevance of the model, particularly the accuracy of the endogenous constructs. It is calculated using the formula:

$$Q^2 = 1 - (1 - R_1^2)(1 - R_2^2)...(1 - R_p^2)$$

In models with only one endogenous construct, Q² is equivalent to the R² value in models with only one endogenous construct. A Q² value greater than zero indicates that the model has predictive relevance.

Furthermore, the Goodness of Fit (GOF) index provides an overall measure of model fit by combining the quality of the measurement and structural models. It is computed using the formula proposed by Tenenhaus (2004). A higher GOF value indicates a better overall model fit.

$$GOF = \sqrt{(AVE \times R^2)}$$

Lastly, hypothesis testing within SEM-PLS is conducted using the t-statistic and p-value. The significance threshold is typically set at a t-statistic value of 1.96, corresponding to a 5% significance level (α = 0.05). The alternative hypothesis (Ha) is accepted if the t-statistic exceeds 1.96 and the p-value is less than 0.05. Under these same conditions, the null hypothesis (H_0) is rejected. This approach provides a rigorous statistical framework to assess the strength and significance of the relationships among constructs, ensuring the robustness and credibility of the proposed theoretical model.

RESULTS

Outer Model
Validity Test - Convergent Basis
*Convergent Validity*
An indicator is considered valid if its loading factor value exceeds 0.70 (Sarwono, 2014). According to Figure 2, all indicators representing the variables of digital marketing, market orientation, entrepreneurial competence, entrepreneurial characteristics, and

MSME performance have loading factor values greater than 0.70. This confirms that the research instrument used to measure these five variables is valid.

Figure 2. Structural Model
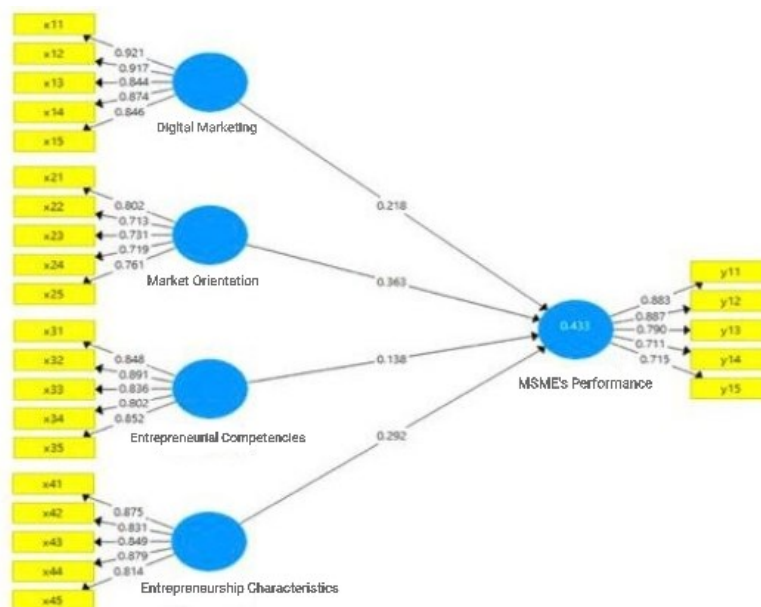
Average Variance Extracted (AVE)
Table 1. AVE Value

Variables	AVE
Digital Marketing	0.776
Market Orientation	0.556
Entrepreneurial Competencies	0.716
Entrepreneurship Characteristics	0.722
MSME's Performance	0.642

The average of the extracted variables with a value of > 0.5 is used as the basic determinant of convergence (Ghozali, 2021). Based on Table 1, it is known that the AVE value of the digital marketing variable (X1) is 0.776 > 0.5; the AVE value of the market orientation variable is 0.556 > 0.5; the AVE value of the entrepreneurial competency variable is 0.716 > 0.5; the AVE value of the variable is 0.722> 0.5; and the AVE value of the UMKM performance variable is 0.642 > 0.5. This means that the research instrument used to measure the five variables is valid.

Discriminant Validity
Fornell-Larcker Criterion
The Fornell-Larcker test evaluates discriminant validity by comparing the square root of the AVE with the correlation values between constructs. For discriminant validity to be established, the square root of the AVE for each construct must be greater than the correlation between that construct and any other construct (Ghozali, 2021).

Table 2. Fornell-Lacker Criterion

	Digital Marketing	Market Orientation	Entrepreneurial Competencies	Entrepreneurship Characteristics	MSME's Performance
Digital Marketing	0.881				0.116
Market Orientation		0.746			0.240
Entrepreneurial Competencies			0.846		0.242
Entrepreneurship Characteristics				0.850	0.437
MSME's Performance					0.801

Based on Table 2, the results of the Fornell-Larcker discriminant validity test indicate that each construct measured in the study is empirically distinct from the others, particularly from the MSME performance variable. The test evaluates whether the square root of the AVE for each latent construct is greater than the construct's correlation with any other variable in the model. A higher square root of AVE implies that the construct shares more variance with its own indicators than it does with other constructs, which is a key criterion for establishing discriminant validity.

In this study, the square root of the AVE for the digital marketing construct is 0.881, which is significantly greater than its correlation with MSME performance (0.116). This suggests that the digital marketing construct is well differentiated and captures unique aspects not explained by MSME performance. Similarly, the market orientation construct has a square root of AVE of 0.746, which also exceeds its correlation with MSME performance (0.240), reinforcing its distinctiveness.

Furthermore, the entrepreneurial competency construct shows a square root of AVE value of 0.846, surpassing its correlation with MSME performance (0.242), indicating that the indicators of entrepreneurial competency more strongly relate to their own construct than to external variables. The entrepreneurial characteristics construct also demonstrates satisfactory discriminant validity, with a square root of AVE of 0.850 compared to a correlation of 0.437 with MSME performance. Despite this being the highest correlation among the constructs, the square root of AVE still exceeds it, ensuring that the construct remains discriminant.

Collectively, these findings demonstrate that, at the construct level, the measurement model satisfies the criteria for discriminant validity. This means that the indicators used for each latent variable—digital marketing, market orientation, entrepreneurial competency, and entrepreneurial characteristics—accurately capture the intended theoretical concepts without significant overlap. As a result, the constructs can be considered both valid and reliable for further analysis, strengthening the overall integrity of the research model and its conclusions.

Cross-Loading
The validity of the research variables is confirmed when the cross-loading value for the intended construct is higher than the values for any other constructs. As shown in Figure 2, all the cross-loading values for Digital Marketing (X1), Market Orientation (X2), Entrepreneurial Competency (X3), and Entrepreneurial Characteristics (X4) indicators

are greater for their intended constructs (MSMEs Performance) compared to the other constructs. Similarly, the cross-loading values for the MSME Performance (Y) indicators are higher for the intended construct than for the other constructs. These results indicate that the outer model for the indicators representing the five research variables is valid.

Reliability Test
Table 3. Cronbach's Alpha dan Composite Reliability Value

	Cronbach's Alpha	Composite Reliability
Digital Marketing (X1)	0.929	0.945
Market Orientation (X2)	0.805	0.862
Entrepreneurial Competencies (X3)	0.905	0.926
Entrepreneurship Characteristics (X4)	0.905	0.927
MSME's Performance (Y)	0.858	0.899

The reliability of the research instrument for reflective indicators can be assessed through both Cronbach's alpha and composite reliability values. A research instrument is considered reliable if Cronbach's alpha value exceeds 0.6 and the composite reliability value exceeds 0.8 (Ghozali, 2021). According to Table 3, Cronbach's alpha values for all five research variables are above 0.6, and the composite reliability values for all five variables are greater than 0.8. These findings indicate that the outer model for the reflective indicators of the research variables is reliable.

Inner Model
R-Square (R²)
The R-Square value represents the coefficient of determination for the endogenous construct. According to Chin (1998), R-Square values are interpreted as follows: 0.67 (strong), 0.33 (moderate), and 0.19 (weak).

Based on Figure 2, the R-Square value for MSME performance is 0.433. This means that approximately 43.3% of the variance in MSME performance is explained by digital marketing, market orientation, entrepreneurial competence, and entrepreneurial characteristics. The remaining 56.7% (100% - 43.3%) is explained by other latent constructs not included in this study. Therefore, in this structural model, the coefficient of determination for the endogenous construct falls within the moderate range. In other words, while digital marketing, market orientation, entrepreneurial competence, and entrepreneurial characteristics among clothing MSME entrepreneurs in Yogyakarta have a moderate influence on business performance, the factors included in this study are still not strong enough to fully explain the performance of clothing MSMEs at this time.

Effect Size (f²)
In addition to examining the R-Square value, the influence of endogenous variables on exogenous variables is also assessed through the effect size (f²), as shown in the table below.

Table 4. Cronbach's Alpha dan Composite Reliability Value

	MSME Performance
Digital Marketing (X1)	0.218
Market Orientation (X2)	0.363
Entrepreneurial Competencies (X3)	0.138
Entrepreneurship Characteristics (X4)	0.292

According to Hair et al. (2014), effect size (f²) values are categorized as weak (0.02), moderate (0.15), or strong (0.35). Based on the results in Table 4, digital marketing (f² = 0.218) and entrepreneurship characteristics (f² = 0.292) have a moderate influence on

MSME performance. Market orientation (f^2 = 0.363) has a strong influence, while entrepreneurial competence (f^2 = 0.138) has a weak to moderate influence. These findings suggest that market orientation has the strongest impact on MSME performance, followed by digital marketing and entrepreneurship characteristics, with entrepreneurial competence having the least impact.

Q-Square (Q²)
Since there is only one R² value in this case, the Q² value is equal to the R² value. Thus, Q² = 1 - (1 - 0.433) = 1 - 0.567 = 0.433. This means that approximately 43.3% of the variance in MSME performance is explained by digital marketing, market orientation, entrepreneurial competence, and entrepreneurship characteristics.

Goodness of Fit (GoF)
Based on the R² value of 0.433, the GoF values for all five research variables exceed the threshold of 0.38, indicating a strong fit. The GoF values for digital marketing, market orientation, entrepreneurial competence, entrepreneurial characteristics, and UMKM performance are all above 0.38, suggesting that the structural model meets the GoF criteria and is acceptable. Thus, with the results from R², f^2, Q², and GoF tests, the structural model is deemed robust, and hypothesis testing can proceed.

Hypothesis Testing
The bootstrapping results for estimating the path coefficients, including the original sample (O), T-statistics, and P-value of the total effect, are as follows.

Table 5. Path Coefficient Estimation and Total Effect T-Statistics

	Original Sample (O)	T Statistics [O/STDEV]	P-Value
Digital Marketing $\Rightarrow$ MSME Performance	0.218	2.356	0.019
Market Orientation $\Rightarrow$ MSME Performance	0.363	3.358	0.000
Entrepreneurial Competencies $\Rightarrow$ MSME Performance	0.138	1.669	0.096
Entrepreneurship Characteristics $\Rightarrow$ MSME Performance	0.292	2.868	0.004

Based on Table 5, the study found that the path coefficients for the variables were as follows: Digital Marketing (0.218), Market Orientation (0.363), Entrepreneurial Competency (0.138), and Entrepreneurial Characteristics (0.292). Digital marketing had a positive and significant impact on MSME performance, with a T-statistic of 0.218 and a P-value of 0.019, supporting the first hypothesis that digital marketing influences MSME performance. Similarly, market orientation showed a strong positive effect on MSME performance (path coefficient 0.363), with a T-statistic of 3.358 and a P-value of 0.000, confirming the second hypothesis.

However, entrepreneurial competence did not significantly impact MSME performance, with a path coefficient of 0.138, a T-statistic of 1.669, and a P-value of 0.096, indicating no significant effect. In contrast, entrepreneurial characteristics had a significant positive effect on MSME performance, with a path coefficient of 0.292, a T-statistic of 2.868, and a P-value of 0.004, confirming the fourth hypothesis. These findings are consistent with prior studies by Sarwoko et al. (2013) but differ from those of Merredith et al. (2002).

DISCUSSION

Effect of Digital Marketing on MSME Performance
The analysis results confirm that digital marketing has a positive and significant effect on MSME performance, with a path coefficient of 0.218, a T-statistic of 2.356, and a p-value of 0.019. These results support H1, indicating that MSMEs that actively utilize digital marketing strategies tend to achieve better business outcomes.

This finding aligns with contemporary marketing theory, which emphasizes the importance of digital platforms in creating customer engagement, improving brand visibility, and expanding market reach (Kotler & Keller, 2016). Digital marketing allows MSMEs to efficiently target specific customer segments, personalize communication, and leverage data analytics for better decision-making. In the context of clothing MSMEs in Yogyakarta, digital marketing likely plays a crucial role in connecting with tech-savvy consumers and showcasing products beyond geographical boundaries.

The results are consistent with a study by Tiago and Veríssimo (2014), which found that digital marketing significantly improves small business competitiveness. Therefore, integrating digital marketing tools not only enhances operational efficiency but also supports sustainable business growth. The findings suggest a practical implication: policymakers and business support institutions should facilitate training and infrastructure to strengthen MSMEs' digital marketing capabilities.

This finding is also consistent with previous research, such as that by Anjaningrum (2020), which underscores that effective digital marketing can improve visibility, customer engagement, and sales. MSMEs that utilize digital platforms for marketing and sales are better positioned to expand their customer base and drive growth.

Effect of Market Orientation on MSME Performance
The study provides strong empirical evidence that market orientation significantly affects MSME performance, as indicated by a path coefficient of 0.363, a T-statistic of 3.358, and a p-value of 0.000. This supports H2 and highlights market orientation as the most influential variable among those tested.

Market orientation involves understanding customer needs, monitoring competitors, and responding effectively to market dynamics (Narver & Slater, 1990). The strong effect size reflects that MSMEs that prioritize market needs and adapt their offerings accordingly are more likely to succeed. For clothing MSMEs in Yogyakarta, a market-oriented approach helps align product design, pricing, and promotion with consumer preferences and fashion trends.

Market orientation was also found to significantly influence MSME performance, suggesting that owners who are responsive to customer needs, competitor strategies, and market trends are more capable of adapting to changes and seizing new opportunities. The findings align with Christian's (2018) assertion that strong market orientation is a key source of competitive advantage, contributing to enhanced customer satisfaction and business performance.

This finding reinforces earlier research by Jaworski and Kohli (1993), which concluded that market orientation positively correlates with business performance. Theoretically, it supports the Resource-Based View (RBV), suggesting that market knowledge and responsiveness are critical intangible assets. Practically, the results suggest that MSME training programs should emphasize market research, customer feedback, and competitive analysis to foster performance improvements.

Effect of Entrepreneurial Competencies on MSME Performance
Contrary to expectations, the study finds that entrepreneurial competencies do not significantly affect MSME performance, as reflected by a path coefficient of 0.138, a T-statistic of 1.669, and a p-value of 0.096. These results indicate that H3 is not supported.

Entrepreneurial competencies typically refer to the knowledge, skills, and behaviors needed to identify opportunities, manage risks, and drive innovation (Man et al., 2002). However, the insignificant result suggests that in this specific context, such competencies may not directly translate into improved business outcomes. This could be due to several factors: the competencies might not be fully developed, may not align with current market demands, or MSMEs may lack the resources to apply them effectively.

This finding contrasts with earlier studies, such as those by Mitchelmore and Rowley (2010), who argued that entrepreneurial competencies are central to small business success. The discrepancy may be attributed to contextual differences, such as the informal business environment, cultural influences, or sector-specific dynamics in Indonesia. Entrepreneurial competence did not have a significant effect on MSME performance in this study. Despite its recognized importance in business success, the results imply that other factors, such as market orientation and digital marketing, may have a more immediate impact on MSME performance in the fashion industry. This could be due to the nature of fashion MSMEs, where external elements like trends and consumer behavior may play a larger role than the direct influence of entrepreneurial skills.

Theoretically, this result challenges the assumption that competencies alone are sufficient for performance enhancement. Practically, it suggests that MSME support programs should not only focus on individual capacity building but also address environmental and structural constraints that hinder the application of entrepreneurial competencies.

Effect of Entrepreneurship Characteristics on MSME Performance
The analysis reveals that entrepreneurship characteristics significantly affect MSME performance, with a path coefficient of 0.292, a T-statistic of 2.868, and a p-value of 0.004. This result supports H4 and underscores the importance of individual traits in determining business success.

Entrepreneurial characteristics—such as risk-taking, creativity, perseverance, and self-confidence—play a pivotal role in how entrepreneurs respond to challenges and pursue opportunities (McClelland, 1961). In the case of clothing MSMEs, such traits likely influence product innovation, customer engagement, and problem-solving capabilities. Entrepreneurs who demonstrate strong personal attributes are often more adaptable and resilient, enabling better performance outcomes.

This result is consistent with studies by Sarwoko et al. (2013), who found that entrepreneurial characteristics significantly contribute to MSME growth in Indonesia. It also aligns with the trait theory of entrepreneurship, which posits that certain personality traits are predictors of business success. Additionally, these results are also in line with Dhamayantie and Fauzan (2017), who emphasized that entrepreneurial characteristics like proactivity and perseverance are vital for overcoming challenges and ensuring long-term business growth.

CONCLUSION

Based on the research findings, several practical suggestions and implications can be drawn, particularly for MSME practitioners, policymakers, and stakeholders. First, the significant influence of digital marketing on MSME performance suggests that business owners should prioritize the adoption and optimization of digital marketing strategies. Utilizing tools such as social media platforms, search engine optimization, email marketing, and e-commerce can help MSMEs reach wider audiences, engage customers more effectively, and boost competitiveness. To support this, relevant stakeholders, including the government and development organizations, are encouraged to provide training, digital literacy programs, and technological support to help MSMEs navigate and utilize digital channels successfully.

Additionally, the positive relationship between market orientation and MSME performance emphasizes the importance of understanding and responding to customer needs and market trends. MSMEs that actively seek customer feedback, conduct market research, and adapt their products and services accordingly are more likely to perform well. This suggests that entrepreneurial training programs should highlight the importance of market orientation and equip entrepreneurs with the tools and knowledge needed to stay attuned to consumer behavior and industry developments.

The findings also highlight the strong influence of entrepreneurial characteristics—such as self-confidence, risk-taking, and determination—on business performance. This underscores the importance of nurturing personal traits and soft skills in entrepreneurs. Entrepreneurship education and mentoring should, therefore, include elements that build confidence, encourage resilience, and develop a proactive mindset among MSME owners and future business leaders.

On the other hand, while entrepreneurial competency was not found to significantly influence MSME performance in this study, it remains a relevant factor. Its limited impact in this context may be due to external variables or specific conditions not captured in the current research. Future competency-building initiatives should consider integrating real-world challenges, practical experience, and resource accessibility to enhance their effectiveness. Further research is also encouraged to explore potential moderating or mediating variables that could clarify the role of entrepreneurial competency.

Finally, these findings have broader policy implications. To foster a more supportive ecosystem for MSMEs, there is a need for improved digital infrastructure, more accessible technological tools, and government incentives that promote digital transformation and market responsiveness. Tailored support programs that address both technical and personal development aspects can greatly enhance MSME resilience and growth. In addition, future studies could benefit from examining these relationships across different industries, regions, or business stages to provide more comprehensive insights into the factors driving MSME success.

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DECLARATION OF CONFLICTING INTERESTS
I declare that there are no conflicts of interest regarding the conduct or publication of this research on "The Impact of Digital Marketing, Market Orientation, Entrepreneurial Competencies, and Entrepreneurial Characteristics on the Performance of Fashion MSMEs in Yogyakarta." There are no financial or personal relationships with any individuals or organizations that could have influenced the outcomes or interpretations presented in this study. The findings are solely based on the research data and objectives. Any potential conflicts of interest that may arise in the future will be disclosed appropriately.

REFERENCES

Alfirevic, A. M., Mihanovic, D., & Cupic, J. (2024). Does market orientation of small and medium enterprises make difference in the market? *Journal of Contemporary Economics*, *8*(1).

Anjaningrum, W. D. (2020, October). Efektivitas digital marketing dan networks dalam mendongkrak kinerja pemasaran UKM di masa pandemi COVID-19. In *Senabisma: Prosiding Seminar Nasional Bisnis Dan Manajemen* (Vol. 5, pp. 50-61).

Antonio, F., & Astika, P. (2019). The antecedents of consumption value and its impact on customer behavior; A study of batik cloth on non-javanese Indonesian millennials. *International Journal of Applied Business and International Management*, *4*(1), 46-58. https://doi.org/10.32535/ijabim.v4i1.382

Apulu, I., & Latham, A. (2011). Drivers for information and communication technology adoption: A case study of Nigerian small and medium sized enterprises. *International Journal of Business and Management*, *6*(5), 51. http://doi.org/10.5539/ijbm.v6n5p51

Baker, W. E., & Sinkula, J. M. (2007). Does market orientation facilitate balanced innovation programs? An organizational learning perspective. *Journal of Product Innovation Management*, *24*(4), 316-334. https://doi.org/10.1111/j.1540-5885.2007.00254.x

Blankson, C., Cowan, K., Crawford, J., Kalafatis, S., Singh, J., & Coffie, S. (2013). A review of the relationships and impact of market orientation and market positioning on organisational performance. *Journal of Strategic Marketing*, *21*(6), 499-512. https://doi.org/10.1080/0965254X.2013.804857

Central Agency of Statistics of Yogyakarta Province (BPS Provinsi Yogyakarta). (2024). *Eksport and Import in Daerah Istimewa Yogyakarta, November 2024*. BPS Provinsi Yogyakarta. https://yogyakarta.bps.go.id/en/pressrelease/2025/01/02/1604/perkembangan-ekspor-dan-impor.html

Chaffey, D., & Ellis-Chadwick, F. (2019). *Digital Marketing: Strategy, Implementation, and Practice* (7th ed.). Pearson Education Limited.

Chin, W. W. (1998). *The Partial Least Squares Approach to Structural Equation Modeling*. In G. A. Marcoulides (Ed.), *Modern Methods for Business Research* (pp. 295–336). Lawrence Erlbaum Associates.

Christian, M. (2018). Determinan kinerja usaha kecil menengah pada pusat perbelanjaan di Jakarta Utara. *Jurnal Pengabdian dan Kewirausahaan*, *2*(2). http://dx.doi.org/10.30813/jpk.v2i2.1361

Dhamayantie, E., & Fauzan, R. (2017). Penguatan karakteristik dan kompetensi kewirausahaan untuk meningkatkan kinerja UMKM. *Jurnal Manajemen, Strategi Bisnis Dan Kewirausahaan*, *11*(1), 80-91.

Drucker, P. F. (1985). *Innovation and Entrepreneurship*. Harper & Row.

Edwy, F. E., Putri, D. M., Maharani, S. N., & Kamaludin, M. B. (2022). Digital marketing: The implementation in MSMEs. In *Urbanizing the Regional Sector to Strengthen*

Economy and Business to Recover from Recession (pp. 62-70). Routledge. https://doi.org/10.1201/9781003303336-7

Garson, G. D. (2016). *Partial Least Squares: Regression & Structural Equation Models*. Statistical Associates Publishing.

Ghozali, I. (2021). *Structural Equation Modeling: Metode Alternatif dengan Partial Least Squares (PLS)*. Badan Penerbit Universitas Diponegoro.

Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2014). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. Sage Publications.

Indonesian Internet Service Providers Association (APJII). (2024). *Jumlah pengguna internet Indonesia tembus 221 juta orang*. Asosiasi Penyelenggara Jasa Internet Indonesia (APJII). https://apjii.or.id/berita/d/apjii-jumlah-pengguna-internet-indonesia-tembus-221-juta-orang

Islam, M. A., Khan, M. A., Obaidullah, A. Z. M., & Alam, M. S. (2011). Effect of entrepreneur and firm characteristics on the business success of small and medium enterprises (SMEs) in Bangladesh. *International Journal of Business and Management*, *6*(3), 289.

Jaworski, B. J., & Kohli, A. K. (1993). Market orientation: Antecedents and consequences. *Journal of Marketing*, *57*(3), 53-70. https://doi.org/10.1177/002224299305700304

Kaplan, R. S. (2012). The balanced scorecard: Comments on balanced scorecard commentaries. *Journal of Accounting and Organizational Change*, *8*(4), 539-545. https://doi.org/10.1108/18325911211273527

Kotler, P., & Keller, K. L. (2016). *Marketing Management* (15th ed.). Pearson Education.

Krisnaresanti, A., Naufalin, L. R., Indrayanto, A., & Sukoco, H. (2022, October). Study of challenges faced in the adoption of digital marketing MSMEs in Banyumas Regency, Indonesia. In *Proceeding of International Conference Sustainable Competitive Advantage* (Vol. 3).

Laudon, K. C., & Traver, C. G. (2020). *E-Commerce: Business, Technology, Society* (16th ed.). Pearson.

Man, T. W., Lau, T., & Chan, K. F. (2002). The competitiveness of small and medium enterprises: A conceptualization with focus on entrepreneurial competencies. *Journal of Business Venturing*, *17*(2), 123-142. https://doi.org/10.1016/S0883-9026(00)00058-6

Mangkunegara, A. A. A. (2005). *Manajemen Sumber Daya Manusia Perusahaan*. PT Remaja Rosdakarya.

McClelland, D. C. (1961). *The Achieving Society*. Princeton University Press.

Merredith, G. G., Robert, E. N., & Phillip, A. N. (2002). *Kewirausahaan: Teori dan Praktek*, Pustaka Binaman Pressindo.

Ministry of Communication and Information Technology of Indonesia (Kominfo). (2024). *Lebih dari 50 persen Masyarakat Indonesia gunakan internet*. Komdigi. https://www.komdigi.go.id/berita/sorotan-media/detail/lebih-dari-50-persen-masyarakat-indonesia-gunakan-internet

Mitchelmore, S., & Rowley, J. (2010). Entrepreneurial competencies: A literature review and development agenda. *International Journal of Entrepreneurial Behavior & Research*, *16*(2), 92-111. https://doi.org/10.1108/13552551011026995

Morgan, T., & Anokhin, S. A. (2020). The joint impact of entrepreneurial orientation and market orientation in new product development: Studying firm and environmental contingencies. *Journal of Business Research*, *113*, 129-138. https://doi.org/10.1016/j.jbusres.2019.06.019

Narver, J. C., & Slater, S. F. (1990). The effect of a market orientation on business profitability. *Journal of Marketing*, *54*(4), 20-35. https://doi.org/10.1177/002224299005400403

Nofrisel, N., Setiawan, E. B., Arubusman, D. A., Octora, T. Y., & Kholdun, A. I. (2023). The role of digital marketing in boosting MSME marketing

performance. *International Journal of Economics and Management Research*, *2*(2), 21-35. https://doi.org/10.55606/ijemr.v2i1.92

Omowole, B. M., Olufemi-Phillips, A. Q., Ofodile, O. C., Eyo-Udo, N. L., & Ewim, S. E. (2024). The role of SMEs in promoting urban economic development: A review of emerging economy strategies. *International Journal of Engineering Research and Development, 20*(11), 1127-1144.

Organisation for Economic Co-operation and Development (OECD). (2017). *Enhancing the contributions of SMEs in a global and digitalised economy*. OECD. https://www.oecd.org/mcm/documents/C-MIN-2017-8-EN.pdf

Rayawan, W., & Efrata, T. C. (2017). The effect locus of control and need for achievement towards entrepreneurial performance. *Review of Management and Entrepreneurship*, *1*(1), 36-49. https://doi.org/10.37715/rme.v1i1.378

Sandroto, C. W., Ramawati, Y., & Darmoyo, S. (2024). Elements of entrepreneur competencies and intention to be entrepreneurs. *International Journal of Applied Business and International Management*, *9*(1), 1-16. https://doi.org/10.32535/ijabim.v9i1.2864

Sarwoko, E., Surachman, A., & Hadiwidjojo, D. (2013). Entrepreneurial characteristics and competency as determinants of business performance in SMEs. *IOSR Journal of Business and Management*, 7(3), 31-38.

Sarwono, J. (2014). *Analisis Faktor dan PLS: Konsep dan Aplikasi dengan SmartPLS 3.0*. Andi Offset.

Sumarlinah, S., Sukesi, S., & Sugiyanto, S. (2022). The role of digital marketing, service quality, and product quality on purchasing power through the satisfaction of Probolinggo MSME followers during the COVID-19 pandemic. *International Journal of Applied Business and International Management*, 7(1), 95-105. https://doi.org/10.32535/ijabim.v7i1.1444

Suryana, S. (2006). *Kewirausahaan: Pedoman Praktis (Kiat dan Proses Menuju Sukses)*. Salemba Empat.

Susanto, G. M. (2017). *The Power of Digital Marketing*. PT Elex Media Komputindo.

Tambunan, T. (2019). Recent evidence of the development of micro, small and medium enterprises in Indonesia. *Journal of Global Entrepreneurship Research*, *9*(1), 18. https://doi.org/10.1186/s40497-018-0140-4

Tenenhaus, M., Amato, S., & Esposito Vinzi, V. (2004, June). A global goodness-of-fit index for PLS structural equation modelling. In *Proceedings of the XLII SIS Scientific Meeting* (Vol. 1, No. 2, pp. 739-742).

Tiago, M. T. P. M. B., & Veríssimo, J. M. C. (2014). Digital marketing and the 2013-2018 European Union rural development policy: A case study. *International Journal of Rural Management*, 10(2), 181–202.

Tiwari, B., & Lenka, U. (2016). Building psychological safety for employee engagement in post-recession. *Development and Learning in Organizations: An International Journal*, *30*(1), 19-22. https://doi.org/10.1108/DLO-05-2015-0044

Udoh, E. J., Inyang, E. B., & Oguzie, B. A. (2017). Dimensions of entrepreneurial competencies of agribusiness managers in Niger Delta region of Nigeria. *Athens Journal of Business & Economics*, *3*(4), 367-382.

World Bank. (2020). *World Bank Annual Report 2020*. World Bank. https://openknowledge.worldbank.org/bitstream/handle/10986/34406/9781464816192.pdf

Yusuf, A. (1995). Critical success factors for small business: Perceptions of South Pacific entrepreneurs. *Journal of Small Business Management*, *33*(2), 68.

Zimmerer, T. W., & Scarborough, N. M. (2005). *Kewirausahaan dan Manajemen Bisnis Kecil*. Erlangga.

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