



RESEARCH ARTICLE

Competitive Advantage Based on Marketing Innovation and Digital Marketing to Improve MSMEs Business Performance in Yogyakarta, Indonesia

Audita Nuvriasari ^{1*}, Hasim As'ari ², and Anief Fauzan Rozi³

¹ Management/Economics, Universitas Mercu Buana Yogyakarta, 55753, Indonesia;

² Accounting/Economics, Universitas Mercu Buana Yogyakarta, 55753, Indonesia;

³ Information System/Information Technology, Universitas Mercu Buana Yogyakarta, 55753, Indonesia

ARTICLE INFO	ABSTRACT
Received: Oct 28, 2024 Accepted: Dec 15, 2024	The degree of business performance achievement can be used to gauge how successfully MSMEs manage their operations. Competitive strategies, sometimes referred to as competitive advantages, and marketing strategies, such as digital marketing and marketing innovation, can impact the performance of MSMEs. The purpose of this study was to evaluate, partially and concurrently, the impact of marketing innovation and digital marketing on competitive advantage in the performance of successful MSMEs enterprises in the Special Region of Yogyakarta. Quantitative methodology is applied. Saturated sampling was the sampling strategy employed, and 352 MSMEs made up the study's sample—data analysis was performed using SEM-PLS. The study's findings showed that the performance of MSMEs enterprises is not significantly impacted by marketing innovation. It has been shown that digital marketing can greatly increase company performance. Digital marketing and innovative marketing strategies can help MSMEs competitors compete more successfully in the interim. According to other research, digital marketing and innovative marketing have a major positive impact.
<p>Keywords</p> Marketing Innovation Digital Marketing Competitive Advantage MSMEs Performance	
<p>*Corresponding Author: audita@mercubuana-yogya.ac.id</p>	

INTRODUCTION

Improving MSMEs' competitiveness is essential to raising their performance levels. In 2020, (Sugiarto & Putra, 2020) in the face of competition, competitive advantage is the key to effective marketing. According to (Nowak et al., 2024), MSMEs struggle to increase their output because of their low level of competition. According to several researchers, MSMEs' incapacity to become more competitive stems from a number of constraints, including their incapacity to adjust to their surroundings, their incapacity to anticipate business opportunities with agility, their lack of creativity, and their lack of innovation when it comes to anticipating different environmental challenges (Anastasov et al., 2019)

MSMEs play a strategic role in developing countries' economies because they can expand employment opportunities, absorb labour, encourage economic equality, improve community welfare, and significantly contribute to national income (Rhee & Stephens, 2020). MSMEs also play an essential role in promoting entrepreneurship, advancing innovation, and supporting social development (Weerawardena, 2003). Based on the ASEAN Investment Report 2022, Indonesia ranks first in the number of MSMEs or reaches 90% of the total number of MSMEs in ASEAN. The number

of MSMEs reached 65.5 million business units in 2023, up 1.7% from the year before, according to data from the Ministry of Cooperatives and SMEs. Contribution to GDP is 61%, or IDR 9,850 trillion, and employs around 117 million people, or 97% of the labor force.

The growth in the number of MSMEs has not been balanced by the achievement of business performance because there are still several obstacles, such as access to capital, limited human resources, adaptation of innovation technology, gender discrimination, inconsistency of regulatory policies and business management (Guo et al., 2020). In facing the ASEAN Economic Community (AEC) 2025, MSMEs face obstacles such as product quality, human resources, marketing innovation, lack of business capital, monitoring, and overlapping programs (Muis et al., 2024). According to related study, government rules, a lack of access to cash, business knowledge, technology, and trained labor, difficulties with marketing and raw material procurement, and restricted capital are the key barriers that MSMEs confront in sustaining the sustainability of their enterprises (Aprillia 2024). Other challenges are market competition (Dahmiri et al., 2024), lack of innovation (Rathod et al., 2022), managerial skills (Sari et al., 2023), entrepreneurial behaviour (Salsabilla et al., 2024) and operational inefficiency (Sopanah et al., 2023)

On the other hand, the key to the success of MSMEs in developing countries that can produce competitive advantages and sustainability are entrepreneurial competence (Blake et al., 2021), government support (Almıaık & Almıaık, 2012), entrepreneurial and business factors (Miles & Darroch, 2006). In addition, other determining factors for the global expansion of MSMEs in Indonesia are international market knowledge, product innovation knowledge, and institutional networks (Dubey et al., 2020). Other researchers state that the success factors of MSMEs are strategic planning, management capacity, entrepreneurship and innovation, human resources, partnerships, and funding (Fayos et al., 2023). The measure to review the success of MSMEs can be analyzed from the level of their business performance. MSMEs business performance is the increase in financial performance such as profit, ROI, cash flow, and non-financial indicators such as innovation, business strategy, and team member and customer satisfaction. MSME's performance can be shown by its ability to achieve its goals. Business performance is a guideline for efficiently operating a business to achieve competitiveness and sustainability. Business performance in MSMEs can be influenced by innovation.

Innovation is the process of adding value to a product, method, or practice by utilizing available resources and pertinent knowledge to develop an idea into a new one or to enhance an already existing one (Rathod et al., 2022). The introduction of novel, hard-to-copy methods for production, marketing, administration, and services is considered an innovation activity (Nour Aldeen et al., 2022). One type of innovation that contributes significantly to the achievement of MSMEs performance is marketing innovation. The more innovative a company is in producing new products, the more positive its influence on the development of business performance. The link between company performance and new products is strengthened by implementing innovative marketing strategies (Joy et al., 1999). Several previous studies have confirmed that marketing innovation plays a vital role in improving business performance in MSMEs (Carretero et al., 2019)

Another marketing strategy that is currently increasingly important for MSMEs to implement is digital marketing. MSMEs in the digital era are required to be able to adopt digital technology to support their business activities. Rapid technological advances and shifting market dynamics have also driven the growth of digital marketing (Kim & Jung, 2022). Digital marketing utilizes internet-based digital media, such as websites, social media, email, databases, mobile/wireless, and digital TV, to increase consumer targets and understand customer profiles, behaviours, product values, and loyalty. Digital marketing provides opportunities for MSMEs to reach global markets, target specific audiences based on demographics, build brands and increase visibility in consumer perceptions, measure campaign effectiveness in real-time, and increase direct interaction with consumers through digital media (Rosenau-Tornow et al., 2009).

Implementing digital marketing can be a resource for MSMEs to increase competitiveness, especially in strengthening brand promotion and positioning, reaching more comprehensive customers and

cost-effectiveness, and increasing brand loyalty and customer retention (Davidescu et al., 2020). The benefits obtained from digital marketing also significantly contribute to developing MSMEs and improving business performance (Mashange & Briggeman, 2022). Digital marketing is essential for MSMEs, but it is not enough to improve their business performance if adequate marketing capabilities do not support it. The implementation of digital marketing does not necessarily impact the performance of MSMEs businesses due to entrepreneurs' limited abilities and skills in utilizing digital marketing tools effectively (Dalalah et al., 2022). MSMEs that can implement digital marketing effectively in their business activities will become competitive resources and will ultimately drive increased performance (Jamaludin, 2021).

The strategy improvement performance of MSMEs is not only determined by innovation marketing and the adoption of digital marketing but also needs superiority and competitiveness to endure and be sustainable so that it contributes positively to the economy's growth. The advantages of competition can be characterized by a focus on performance, the company's capability to outdo competitors and create more economy than competitors (Deshmukh et al., 2022). Superiority competitively allows a company to get a better position in the market and increase profit. Several studies empirically find that superior competition can push improvement performance business (Liao, 2015).

Several empirical studies have proven the relationship between marketing innovation and digital marketing mediated by competitive Advantage to improve company performance. MSMEs performance will be more successful if supported by competitive advantages driven by practical and digital marketing innovation. Innovation is an essential source of competitive Advantage, and successful innovation can make it difficult for competitors to imitate, allowing companies to maintain their competitive Advantage and ultimately have an impact on improving business performance (Henseler et al., 2015). Digital marketing is essential in improving MSMEs performance and creating competitive Advantage.

The importance of the role of marketing strategy, both in the form of marketing innovation and digital marketing, in creating competitive advantages and improving the performance of MSMEs requires an analysis of their relationship. This paper examines the study of MSME performance in Yogyakarta, Indonesia. Yogyakarta is one of the provinces known for its creative industry sector and has 326,555 MSMEs units in 2024. This study is expected to contribute positively to developing MSMEs in Yogyakarta and strengthening the national economy.

RELATED WORK

Micro-enterprises are defined as profitable businesses owned by individuals or individual business entities that meet the requirements for micro-enterprises as set forth in the Micro, Small, and Medium Enterprises Law of the Republic of Indonesia Number 20 of 2008; small businesses are defined as independent, profitable endeavors managed by individuals or organizations that are not associated, controlled, or connected in any way, either directly or indirectly, with a medium-sized or large company that meets the requirements for small businesses. Then, medium-sized businesses are autonomous, profitable ventures run by people or organizations that do not function as branches or subsidiaries of firms that are directly or indirectly owned, controlled, or involved in a small or large business, with the amount of net assets or yearly sales figures specified by this law.

Marketing Innovation and Business Performance

Innovation is crucial to business survival and superior performance, especially in emerging industries (Brammer & Pavelin, 2006). A culture of innovation in MSMEs has a positive impact on marketing strategies and strengthens company performance. Innovation significantly drives research and development performance, which can ultimately improve company performance (Nekhili, 2021). One type of innovation that determines the level of business performance is marketing innovation, described as value creation by using relevant knowledge and resources to implement ideas for new marketing methods or improvements in existing marketing methods.

Marketing innovation needs to be supported by marketing capabilities that refer to the ability to innovate, willingness to change, and innovative nature, which have been shown to improve marketing performance (Buckner et al., 2016). Marketing innovation refers to improving the marketing mix and can help deal with difficulties in operating in the current economic situation. Marketing innovation, which consists of product, price, promotion, and distribution innovations, dramatically determines the efficiency of MSMEs performance (Caruana, 2016). Marketing innovation in the form of price and promotion can improve marketing performance. Several previous studies have shown that well-developed marketing innovation will improve business performance (Hoe & Mansori, 2018). Based on these studies, the following hypothesis can be formulated:

H1: Marketing innovation has a significant influence on MSMEs performance.

Marketing Innovation and Competitive Advantage

Marketing innovation provides an advantage over competitors by offering added value to customers through lower prices and additional services commensurate with higher costs (Owusu et al., 2021). MSMEs with high entrepreneurial creativity will be superior to their competitors, so this level of creativity can be an important source of competitive Advantage for MSMEs operating in a dynamic business environment. Innovation is considered an essential asset for remaining competitive in a business landscape characterized by intense competition. An innovative approach enables companies to cope with volatile and dynamic environments and helps them to achieve and sustain long-term competitive Advantage (Chiu & Cho, 2021; Jam et al., 2013). Marketing innovation helps to create and sustain competitive Advantage through differentiation and cost leadership strategies. A company's ability to innovate in marketing will significantly enhance new product development, market penetration, competitive position, and customer engagement. Implementing strategies in markets, communication channels, products, and service delivery for marketing innovation positively impacts competitive Advantage (Iqbal et al., 2023; Thajeel et al., 2024). Marketing innovation aims to provide value to customers and increase competitive Advantage. Referring to the explanation above, the following hypothesis can be formulated:

H2: Marketing innovation has a significant impact on competitive Advantage.

Digital Marketing and MSME Performance

Digital marketing promotes products, services, or brands through digital media and the Internet. Digital marketing is also known as online marketing. This is one of the most essential things for MSMEs because it helps improve marketing performance by simplifying the process of displaying products to a broader audience (Patrick, 2021). Empirical studies prove that digital marketing can improve MSMEs performance (Schmitt et al., 2024). The output that MSMEs produce over a given time period is known as MSME performance. MSME performance can be measured using a variety of factors, including financial and non-financial performance. With reference to the previously provided explanation, the following conjecture can be made:

H3: Digital marketing has a significant impact on MSMEs performance

Digital Marketing and Competitive Advantage

Several preliminary studies confirm that digital marketing significantly positively affects competitive Advantage (Nyamekye et al., 2024). Digital marketing promotes products, services, or brands through digital media and internet networks. Digital marketing is one of the new ways for companies to reach consumers. Furthermore, a company's ability to set itself apart from its rivals and perform better is known as its competitive advantage. Companies with a competitive advantage can increase their market share and draw in new clients. With reference to the previously provided explanation, the following conjecture can be made:

H4: Digital marketing has a significant impact on competitive Advantage

Competitive Advantage and Performance of MSMEs

Competitive Advantage in the form of differentiation and cost advantage has a positive and significant effect on MSMEs performance (Krasnyuk et al., 2021). Several empirical studies have found a significant positive relationship between competitive advantage and MSMEs performance (Massari et al., 2023). Competitive Advantage can help companies get greater profits, such as superior margins, better growth profiles, and greater customer loyalty. And all of that cannot be separated from the role of MSMEs performance. MSMEs performance can also be interpreted as the ability of MSMEs to meet their stakeholders, both in financial and non-financial terms. Referring to the explanation above, the following hypothesis can be formulated:

H5: Competitive Advantage has a significant influence on MSMEs performance.

The Mediation Role of Competitive Advantage

MSMEs need novelty in innovation to be a source of competitive Advantage (Veselinova & Samonikov, 2017). MSMEs that develop a culture of innovation in their business practices will experience a positive impact on their performance, such as the quality of products/services will increase (Neramballi et al., 2024). Marketing innovation involves adopting new marketing tactics and modifications in product design, pricing, packaging, and product placement strategies. Marketing innovation represented through updates to distribution techniques, marketing techniques, market expansion, and new technological innovations can increase the competitive Advantage of MSMEs. Innovation allows managers to utilize their resources to gain a competitive advantage effectively. To achieve competitive Advantage, MSMEs must be supported by adequate marketing and innovation capabilities to improve their business performance.

An effective digital marketing strategy will be a source of competitive Advantage and impact and improve MSMEs performance. Research shows that competitive Advantage significantly mediates the effect of digital marketing on MSMEs performance (Molla et al., 2020). Companies that successfully use digital platforms to enhance their competitive Advantage can experience a multiplier effect on their marketing performance, leading to rapid growth, more significant market presence, and sustainable competitive achievement. On the other hand, other studies prove that digital marketing does not significantly affect MSME's competitive Advantage and performance. Other studies confirm that competitive Advantage mediates the relationship between digital marketing and business performance (Zameer, H, 2015). Referring to the explanation above, we can formulate a hypothesis as follows:

H6: Competitive Advantage mediates the relationship between marketing innovation and MSMEs performance

H7: Competitive Advantage mediates the relationship between digital marketing and MSMEs performance

MATERIAL AND METHOD

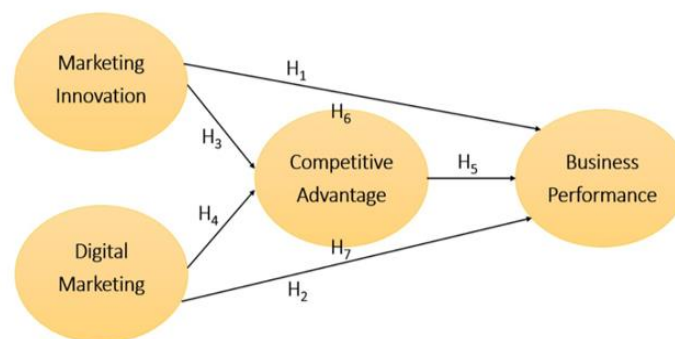


Figure 1. Research Framework

A descriptive strategy combined with a quantitative approach was used to design this study. Research data phenomena are explained via the descriptive quantitative technique. In the meantime, the impact of independent variables on dependent variables is explained using the quantitative approach. Primary and secondary data sources are used in this study's data collection methodology. The primary and secondary data gathering sources state (Creswell, 1998). The managers or owners of MSMEs operating in Yogyakarta Province, Indonesia's Special Region served as the study's sample. MSMEs who have been in business for at least three years and who use digital marketing media to assist their operations met the sample criteria for the purposive sampling technique. A total of 352 MSMEs had their samples successfully collected. A questionnaire was used as the data collecting tool in the survey method, which was the method used to acquire the data. The traditional method of distributing the questionnaire to responders was face-to-face encounters.

Product/service renewal, market development, company model, promotion renewal, pricing strategy, and distribution channels are the six components of marketing innovation (Mallik, 2023). According to (Eniola & Entebang, 2015), there are six components of digital marketing: customer trust development, engagement, attractiveness, information accuracy, customer incentive programs, ease of business transactions, and cost savings on promotions. The six components of MSMEs business performance include market share control, profitability, overall performance, customer happiness, and customer retention (Hair et al., 2017). A five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree), is used to measure these items. The goal of data analysis is to use SEM-PLS to support the hypothesis.

DATA ANALYSIS

Four hundred questionnaires were distributed; 352 were filled out and met the requirements, and the response rate was 88%. A response rate exceeding 50% is sufficient for statistical analysis (Hair et al., 2014)

Table 1. MSMEs Profile

Characteristics	Category	Frequency	Percentage
Company age	3 – 5 years	125	35.5
	> 5 – 10 years	106	30.1
	> 10 – 15 years	53	15.1
	> 15 – 20 years	26	7.4
	> 20 years	42	11.9
Number of employees	< 10 employees	160	45.5
	10 – 20 employees	144	40.9
	> 20 employees	48	13.6
Market Coverage	Domestic	272	77.2
	International	9	2.6
	Domestic and International	71	20.2
Business fields	Handicrafts	85	24.1
	Mode	46	13.1
	Food & Beverages	100	28.4
	Culinary	49	13.9
	Various Services	72	20.5

Company Legality	Not affiliated	271	77.0
	Legal entity company	81	23.0
Number = 352			

Source: Author's Primary Data, 2024

Table 2. Digital marketing channels

Online Media	Frequency	Percentage
Website	81	8.3
Market	151	15.4
Instagram	307	31.4
Indonesia	147	15.0
Twitter	10	1.0
YouTube	25	2.6
TikTok App	147	15.0
Others (email marketing, WA Business, etc.)	111	11.3
Total	979*	100

Source: Author's Primary Data, 2024

*Note: MSMEs can choose more than one channel

Table 3. Owner/Manager Profile

Characteristics	Category	Frequency	Percentage
Position	Owner	167	47.4
	Manager	185	52.6
Gender	Man	149	42.3
	Woman	203	59.7
Age	21 – 25	69	19.6
	26 – 30	72	20.5
	31 – 35	58	16.5
	36 – 40	45	12.8
	41 – 45	38	10.8
	> 45	70	19.9
Level of education	Senior High School	162	46
	Diploma	23	6.5
	Bachelor's degree	156	44.3
	Master Degree	11	3.1
Work experience in MSMEs	1 - 3 years	18	5.1
	3 – 5 years	145	41.2
	> 5 years	189	53.3
Number = 352			

Source: Author's Primary Data, 2024

Evaluation of Measurement Model (Outer Model)

The SEM-PLS technique is used in this work to assess the measurement model and model structure. The measurement model is evaluated in order to assess its reliability and validity. Convergent and discriminant validity are used in validity testing, whereas construct reliability testing makes use of Cronbach's Alpha.

Composite Reliability and Average Variance Extracted (AVE)

If each construct's loading factor value is 0.7 or higher, the testing for convergent validity is deemed legitimate (Hair J et al., 2018). Eight indications (X1.5, X2.7, Y4, Y5, Y6, Z1, Z5, Z6) were invalid (loading factor <0.7) in the initial testing phase. One indication (X2.5) was deemed invalid (loading factor <0.7) in the subsequent testing phase. All indicators were deemed legitimate (loading factor > 0.7) based on the final test findings. If Cornbach's Alpha > 0.7, Composite Reliability > 0.7, and Average Variance Extracted (AVE) > 0.5, the construct reliability test is deemed reliable. Table 4 displays the results of the tests for construct reliability and convergent validity, which indicate that all validity and reliability requirements have been satisfied.

Table 4. Results of Convergent Validity and Construct Reliability Tests

Variables	Indicator	Loading Factor	Alpha Cronbach	Composite Reliability	AVE
Marketing Innovation	X1.1	0.735	0.814	0.870	0.572
	X1.2	0.787			
	X1.3	0.776			
	X1.4	0.746			
	X1.6	0.736			
Digital Marketing	X2.1	0.760	0.857	0.898	0.638
	X2.2	0.857			
	X2.3	0.853			
	X2.4	0.794			
	X2.6	0.720			
Competitive Advantage	Z.2	0.731	0.749	0.841	0.570
	Z.3	0.770			
	Z.4	0.759			
	Z.7	0.760			
Business Performance	Y.1	0.830	0.810	0.876	0.640
	Y.2	0.850			
	Y.3	0.800			
	Y.7	0.713			

Source: Author's Primary Data, 2024

The results of the external loading of the PLS algorithm for each indicator are shown in the structural model in Figure 2.

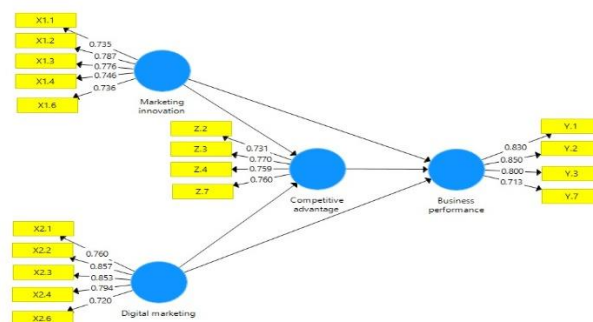


Figure 2. Structural Model

Discriminant validation testing at the indicator level uses cross-loading, while at the variable level, the Fornell-Larcker Criterion or mark root AVE squared is used (Hair et al., 2012). Cross Loading Results in Table 5 show that discriminant validation has been fulfilled Because the mark cross-loading indicator on the construct is taller than the construct. Results Discriminant Validity Testing of the Fornell-Larcker Criterion in Table 6 states that mark root AVE squared throughout the construct is tested greater than the mark correlation between construct and construct other, so the model has good discriminant validation.

Table 5. Cross Loading

	Innovation Marketing	Digital Marketing	Competitive Advantage	Business Performance
X1.1	0.735	0.476	0.338	0.310
X1.2	0.787	0.438	0.397	0.237
X1.3	0.776	0.349	0.303	0.265
X1.4	0.746	0.457	0.299	0.228
X1.6	0.736	0.388	0.404	0.339
X2.1	0.418	0.760	0.366	0.315
X2.2	0.473	0.857	0.440	0.388
X2.3	0.465	0.853	0.403	0.354
X2.4	0.483	0.794	0.347	0.345
X2.6	0.383	0.720	0.295	0.307
Y.1	0.301	0.340	0.342	0.830
Y.2	0.267	0.338	0.379	0.850
Y.3	0.341	0.344	0.389	0.800
Y.7	0.272	0.349	0.360	0.713
Z.2	0.269	0.293	0.731	0.369
Z.3	0.366	0.362	0.770	0.320
Z.4	0.439	0.311	0.759	0.315
Z.7	0.332	0.435	0.760	0.387

Source: Author's Primary Data, 2024

Table 6. Criteria Fornell Larcker

	Marketing Innovation	Competitive Advantage	Business Performance	Digital Marketing
Marketing Innovation	0.756			
Competitive Advantage	0.467	0.755		
Business Performance	0.371	0.461	0.800	
Digital Marketing	0.558	0.468	0.430	0.799

Source: Author's Primary Data, 2024

Structural Model Evaluation (Internal Model)

The validation of the overall structural model was carried out using the Goodness of Fit Index (GoF Index) with a value range of 0 to 1, where a value of 0 - 0.25 is categorized as minor, 0.25 - 0.36 is categorized as medium and above 0.36 is categorized as significant. In this study, the GoF value produced was 0.4108, which means it is included in the large or good category. Furthermore, a direct influence test was carried out to evaluate the inner model by looking at the magnitude of the structural path coefficient using the bootstrapping method with test results as in Table 7.

Table 7. Hypothesis Test Results - Direct Effect Test

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Value	Decision
Marketing Innovation ->Competitive Advantage	0.299	0.299	0.072	4,162	0.000	Supported
Marketing Innovation -> Business Performance	0.098	0.105	0.061	1,606	0.109	Not Supported
Competitive Advantage ->Business Performance	0.307	0.302	0.058	5,251	0.000	Supported
Digital Marketing >Competitive Advantage	0.301	0.311	0.073	4,145	0.000	Supported
Digital Marketing >Business Performance	0.231	0.236	0.057	4,036	0.000	Supported

Source: Author's Primary Data, 2024

Based on Table 7, it is explained that direct marketing innovation does not have a significant effect on the performance of MSMEs businesses (p-value $0.109 > 0.05$), so H1 is not proven. This finding shows that marketing innovation carried out by MSMEs does not guarantee increased business performance. In other words, marketing innovation is not a determining factor in the performance of MSMEs businesses in Yogyakarta, Indonesia. Hypothesis 2 (H2) testing proves that digital marketing has a positive and significant influence on MSME performance (p-value < 0.05), so H2 is accepted. Effectively adopted digital marketing can drive increased MSMEs business performance and vice versa.

The effect of competitive Advantage on MSMEs performance shows positive and significant results (p-value < 0.05), so Hypothesis 3 (H3) is accepted. This test proves that the high or low competitive Advantage possessed by MSMEs will affect the good or bad performance of MSMEs businesses. Hypothesis 4 (H4) testing shows that marketing innovation has a positive and significant effect on the competitive Advantage of MSMEs in Yogyakarta, Indonesia (p-value < 0.05), so it is concluded that H4 is accepted. MSMEs that carry out marketing innovation will increase their competitive Advantage.

This study also proves that digital marketing has a positive and significant effect on the competitive Advantage of MSMEs in Yogyakarta, Indonesia (p-value < 0.05); the conclusion is Hypothesis 5 (H5) is accepted. MSMEs that are able to utilize digital marketing well in their business operations will have better business performance. The Specific Indirect Effect in Table 8 shows the indirect effect test through the bootstrapping method. The test results show that competitive Advantage significantly mediates the effect of marketing innovation on the business performance of MSMEs in Yogyakarta, Indonesia (p-value < 0.05), so Hypothesis 6 (H6) is accepted. Marketing innovation will impact

business performance if MSMEs have a competitive advantage. The type of mediation in this indirect effect is partial mediation.

Empirical testing on Hypothesis 7 (H7) proves that competitive Advantage significantly mediates the effect of digital marketing on the performance of MSMEs in Yogyakarta, Indonesia (p-value <0.05), with the type of mediation being complete mediation. This means that digital marketing directly and indirectly significantly affects the performance of MSMEs.

Table 8. Effect No Direct Specific

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Value	Types of Mediation
Marketing Innovation ->Competitive Advantage ->Business Performance	0.092	0.090	0.026	3,477	0.001	Partial Mediation
Digital Marketing -> Competitive Advantage -> Business Performance	0.092	0.093	0.027	3,456	0.001	Full Mediation

Source: Author's Primary Data, 2024

This study examines the relationship between marketing innovation and digital marketing on MSMEs business performance. In addition, it investigates the role of competitive Advantage in mediating the relationship between these variables. The study results indicate that marketing innovation activities do not impact MSMEs performance achievement. Marketing innovation is an essential activity in business but is not enough to improve MSMEs performance. This statement is by previous studies which explain that the level of innovation developed in MSMEs does not affect the level of business performance (Bjørnbet et al., 2021). Innovation in MSMEs will be influenced by external environmental conditions such as market turbulence, so MSMEs tend to reduce innovation by considering the risks involved (Supriyo & Afifah, 2022). MSMEs face obstacles in their innovation efforts, including insufficient internal funding, limited managerial expertise, inadequate workforce skills, lack of knowledge, and limited market entry opportunities. MSMEs in Yogyakarta, Indonesia generally have limited resources in finance, human resources, and technology, so innovation cannot be implemented effectively. In addition, most MSMEs make products based on orders or follow consumer demand, so they do not have the freedom to develop creativity in product design. A similar situation also occurs in MSMEs in Hanoi, Vietnam. MSMEs are limited in innovating because they are only order-based, so product innovation does not impact company performance. (Bastian et al., 2023; Gunawardane et al., 2022; Adegbuyi et al., 2015).

This study also confirms that MSMEs that have substantial competitive advantages can drive increased business performance; conversely, if MSMEs are not competitive, their business performance will be low. Thus, competitive advantage strategy is an essential factor for MSMEs. MSMEs performance can be improved by designing the right competitive advantage strategy, such as product uniqueness, product quality, and competitive prices (Darsono et al., 2021). Competitive advantage strategy in MSMEs in Yogyakarta, Indonesia, is one factor that strengthens business sustainability by highlighting product/service differentiation so that competitors do not easily imitate it, has characteristics that distinguish it from others, and provides superior product and service quality. Competitive Advantage in cost leadership is managed through operational efficiency by procuring cheaper raw materials or utilizing technology that can reduce operational costs so that the prices offered are more affordable than competitors. The results of this test support previous studies that confirm that competitive Advantage contributes positively to improving the business

performance of MSMEs. Competitive Advantage has also been shown to play a role in improving the financial performance of MSMEs. Competitive Advantage in the form of cost leadership is the primary driver that influences the export performance of MSMEs (Nguyen & Robinson, 2015).

Other research results reveal that marketing innovation directly affects the competitive Advantage of MSMEs. The ability of entrepreneurs to innovate is demonstrated through product/service renewal and promotional techniques, business strategy development, expansion of distribution channels, and renewal of pricing policies confirmed to strengthen the competitive Advantage of MSMEs in Yogyakarta, Indonesia. This test's results align with previous studies, which explain that marketing innovation supported by adequate marketing capabilities will increase the competitive Advantage of MSMEs (Espina-Romero et al., 2024). The achievement of competitive Advantage in MSMEs is significantly determined by marketing innovation activities. Marketing innovation enables MSMEs to strengthen their position in the market, increase competitiveness, and create sustainable competitive advantages (Eniola & Entebang, 2015)

This paper also explains that competitive Advantage is significantly influenced by the use of digital marketing adopted by MSMEs. MSMEs effectively use digital marketing in Yogyakarta to inform about products/services, interact with potential consumers, build consumer trust, facilitate business transactions, and efficiency of promotional costs. Competitive Advantage plays a significant role in mediating the relationship between marketing innovation and MSMEs business performance, as well as between digital marketing and MSMEs business performance. Marketing innovation shown through the renewal of marketing mix components can strengthen the position of MSMEs in the market with their competitive advantages, thereby encouraging increased business performance. This finding confirms several previous studies that highlight that marketing innovation indirectly significantly influences increasing MSMEs business performance if supported by a competitive advantage strategy (Peretz-Andersson et al., 2024). Marketing innovation can improve company performance by giving it a more advantageous competitive position in the market (Veselinova & Samonikov, 2017). Similar studies explain that product innovation strengthens competitive Advantage and, in turn, improves business performance (Thiraviyam, 2023). The role of competitive Advantage as a mediator in the relationship between innovation and business performance has been proven by previous studies (Jenneboer et al., 2022)

Competitive Advantage also plays a role in mediating the relationship between digital marketing and MSMEs business performance. MSMEs can utilize digital marketing channels, generally social media, to introduce products, build interactions with potential consumers, and facilitate business processes. Adopting digital marketing can strengthen the position of MSMEs in the market, which in turn positively contributes to business performance. The results of this study support the evidence that digital marketing functions as a driver to increase competitive Advantage and improve marketing performance results (Lufiati & Suparna, 2023)

CONCLUSION

The study results prove that marketing innovation is not a determining factor in achieving MSMEs business performance in Yogyakarta, Indonesia. However, marketing innovation can drive an MSMEs competitive Advantage. Other findings confirm that digital marketing positively and significantly affects MSMEs competitive Advantage and performance. Competitive Advantage is a significant determining factor for MSMEs business success. This study also found that competitive Advantage significantly mediates the relationship between marketing innovation and digital marketing on MSMEs business performance in Yogyakarta, Indonesia. The study of competitive Advantage is a unidimensional construct, so it has not been studied based on each type of competitive advantage strategy, such as differentiation, low cost, and focus. Likewise, business performance in this study is not grouped into financial and non-financial performance perspectives. These limitations can be suggestions for further researchers to place competitive Advantage and business performance as multidimensional constructs.

FUNDING STATEMENT

This research was funded by DRTPM Kemdikbudristek (Ministry of Education, Culture, Research, and Technology), which has funded this research in the form of a Research Grant based on contract number 107/E5/PG.02.00.PL/2024.

The APC was funded by DRTPM Kemdikbudristek (Ministry of Education, Culture, Research, and Technology), which has funded this research in the form of a Research Grant based on contract number 107/E5/PG.02.00.PL/2024.

AUTHOR CONTRIBUTION

“Conceptualization, Audita Nuvriasari and Hasim As’ari; methodology, Anief Fauzan Rozi; software, Anief Fauzan Rozi.; validation, Audita Nuvriasari., and Hasim As’ari.; for-mal analysis, Audita Nuvriasari.; investigation, Hasim As’ari.; resources, Audita Nuvriasari.; data curation, Hasim As’ari.; writing—original draft prepa-ration, Audita Nuvriasari.; writing—review and editing, Hasim As’ari.; visualization, Anief Fauzan Rozi; supervision, Hasim As’ari.; project administra-tion, Audita Nuvriasari.; funding acquisition, Audita Nuvriasari.

All authors have read and agreed to the published version of the manuscript.”

All authors made an equal contribution to the development and planning of the study.

CONFLICTS OF INTEREST

No conflicts of interest.

The funders had no role in the design of the study; in the collection, analyses, or interpretation of data; in the writing of the manuscript; or in the decision to publish the re-sults.

DATA AVAILABILITY STATEMENT

Data are available from the authors upon request.

ACKNOWLEDGEMENTS

The highest appreciation is conveyed to DRTPM Kemdikbudristek (Ministry of Education, Culture, Research, and Technology), which has funded this research in the form of a Research Grant based on contract number 107/E5/PG.02.00.PL/2024.

REFERENCES

- Alniaçık, E., & Alniaçık, Ü. (2012). *Identifying dimensions of attractiveness in employer branding : effects of age, gender, and current employment status*. 58, 1336–1343. <https://doi.org/10.1016/j.sbspro.2012.09.1117>
- Anastasov, M., Kazitskaya, N., & Politkovskaya, I. (2019). Environmental and Economic Role of the Lean Production in Transition to Sustainable Development. *E3S Web of Conferences*, 105, 1–6. <https://doi.org/10.1051/e3sconf/201910504043>
- Aprillia, E. M. (2024). Influence of Innovation and Entrepreneurial Orientation on Competitive Through Marketing Performance as Moderating. *Marketing and Business Strategy*, 1(2), 69–79. <https://doi.org/10.58777/mbs.v1i2.227>
- Bjørnbet, M. M., Skaar, C., Fet, A. M., & Schulte, K. Ø. (2021). Circular economy in manufacturing companies: A review of case study literature. *Journal of Cleaner Production*, 294, 126268. <https://doi.org/https://doi.org/10.1016/j.jclepro.2021.126268>
- Blake, S., Head, J. F., & Hughes, T. M. (2021). Using Electronic Data Management to Create A Recruitment Advantage: The “Digital Back Office” Provides a New Measure of Stealth Competition. *College and University*, 82(4), 33–36. <https://www.proquest.com/scholarly-journals/using-electronic-data-management-create/docview/225606391/se-2?accountid=14511%0Ahttps://ucl-new->

- primo.hosted.exlibrisgroup.com/openurl/UCL/UCL_VU2?url_ver=Z39.88-2004&rft_val_fmt=info:ofi/fmt:kev:mtx:journal&ge
- Brammer, S. J., & Pavelin, S. (2006). Corporate reputation and social performance: The importance of fit. *Journal of Management Studies*, 43(3), 435–455. <https://doi.org/10.1111/j.1467-6486.2006.00597.x>
- Buckner, C. A., Lafrenie, R. M., Dénomée, J. A., Caswell, J. M., Want, D. A., Gan, G. G., Leong, Y. C., Bee, P. C., Chin, E., Teh, A. K. H., Picco, S., Villegas, L., Tonelli, F., Merlo, M., Rigau, J., Diaz, D., Masuelli, M., Korrapati, S., Kurra, P., ... Mathijssen, R. H. J. (2016). We are IntechOpen, the world's leading publisher of Open Access books. Built by scientists for scientists' TOP 1 %. *Intech*, 11(tourism), 13. <https://www.intechopen.com/books/advanced-biometric-technologies/liveness-detection-in-biometrics>
- Carretero, S., Vuorikari, R., & Punie, Y. (2019). The Digital Competence Framework for Citizens. In *European Union Joint Research Centre* (Issue August). <https://op.europa.eu/en/publication-detail/-/publication/3c5e7879-308f-11e7-9412-01aa75ed71a1/language-en>
- Caruana, A. (2016). Service loyalty: The effects of service quality and the mediating role of customer satisfaction. *European Journal of Marketing*, 36(7/8).
- Chiu, W., & Cho, H. (2021). E-commerce brand. *Asia Pacific Journal of Marketing and Logistics*, 33(6), 1339–1362. <https://doi.org/10.1108/APJML-10-2018-0403>
- Creswell, J. W. (1998). *Qualitative inquiry and research design: Choosing among five traditions*. A thousand oaks, ca: Sage London.
- Dahmiri, D., Junaidi, J., Johannes, J., Yacob, S., & Indrawijaya, S. (2024). The Impact of Market Orientation on Marketing Performance: Exploring the Moderating Role of Competitive Advantage. *Business: Theory and Practice*, 25(1), 164–174. <https://doi.org/10.3846/btp.2024.20174>
- Dalalah, D., Khan, S. A., Al-Ashram, Y., Albeetar, S., Ali, Y. A., & Alkhouli, E. (2022). An integrated framework for the assessment of environmental sustainability in wood supply chains. *Environmental Technology & Innovation*, p. 27, 102429. <https://doi.org/https://doi.org/10.1016/j.eti.2022.102429>
- Darsono, S. N. A. C., Wong, W.-K., Ha, N. T. T., Jati, H. F., & Dewanti, D. S. (2021). Cultural Dimensions and Sustainable Stock Exchanges Returns in the Asian Region. *Journal of Accounting and Investment*, 22(1), 133–149. <https://doi.org/10.18196/jai.v22i1.10318>
- Davidescu, A. A., Apostu, S.-A., Paul, A., & Casuneanu, I. (2020). Work Flexibility, Job Satisfaction, and Performance among Romanian Employees—Implications for Sustainable Human Resource Management. *Sustainability*, 12(15), 6086. <https://doi.org/10.3390/su12156086>
- Deshmukh, M., Gangele, A., Gope, D. K., & Dewangan, S. (2022). Study and implementation of lean manufacturing strategies: A literature review. *Materials Today: Proceedings*, 62(September), 1489–1495. <https://doi.org/10.1016/j.matpr.2022.02.155>
- Dubey, P., Bajpai, N., Guha, S., & Kulshreshtha, K. (2020). Entrepreneurial marketing: An analytical viewpoint on perceived quality and customer delight. *Journal of Research in Marketing and Entrepreneurship*, 22(1), 1–19. <https://doi.org/10.1108/JRME-09-2016-0033>
- Eniola, A. A., & Entebang, H. (2015). SME Firm Performance-Financial Innovation and Challenges. *Procedia - Social and Behavioral Sciences*, 195, 334–342. <https://doi.org/10.1016/j.sbspro.2015.06.361>
- Espina-Romero, L., Ríos Parra, D., Noroño-Sánchez, J. G., Rojas-Cangahuala, G., Cervera Cajo, L. E., & Velásquez-Tapullima, P. A. (2024). Navigating Digital Transformation: Current Trends in Digital Competencies for Open Innovation in Organizations. *Sustainability (Switzerland)*, 16(5). <https://doi.org/10.3390/su16052119>
- Fayos, T., Calderón, H., Cotarelo, M., & Frasquet, M. (2023). The contribution of digitalization, channel integration and sustainability to the international performance of industrial SMEs. *Management of Environmental Quality: An International Journal*, 34(3), 624–646. <https://doi.org/10.1108/MEQ-06-2022-0159>

- Guo, H., Yang, Z., Huang, R., & Guo, A. (2020). The digitalization and public crisis responses of small and medium enterprises: Implications from a COVID-19 survey. *Frontiers of Business Research in China*, 14(1), 1–25. <https://doi.org/10.1186/s11782-020-00087-1>
- Hair, et al. (2014). *Multivariate Data Analysis, New Internasional Edition., New Jersey : Pearson.*
- Hair, J. F., Risher, J., & Sarstedt, M. (2018). *The Results of PLS-SEM Article Information.* European Business Review.
- Hair, J. F., Sarstedt, M., & Ringle, C. M. (2017). *A Primer on Partial Least Squares Structural Equation Modeling.* In Handbook of Market Research.
- Hair, J. F., Sarstedt, M., Ringle, C. M., & Mena, J. A. (2012). An Assessment of the Use of Partial Least Square's Structural Equation Modeling in Marketing Research. *Journal of the Academy of Marketing Science*, 40(1), 414–433.
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modelling. *Journal of the Academy of Marketing Science*, 43(1), 115–135. <https://doi.org/10.1007/s11747-014-0403-8>
- Hoe, L. C., & Mansori, S. (2018). The Effects of Product Quality on Customer Satisfaction and Loyalty: Evidence from Malaysian Engineering Industry. *International Journal of Industrial Marketing*, 3(1), 20. <https://doi.org/10.5296/ijim.v3i1.13959>
- Iqbal, A., Iqbal, M., Athar, A., & Khan, S. (2023). Impact of Green Marketing on Consumer Purchase Intention: The Moderating Role of Environmental Knowledge. *Journal of Social & Organizational Matters*, 2, 43–58. <https://doi.org/10.56976/jsom.v2i2.25>
- Jamaludin, M. (2021). The influence of supply chain management on competitive Advantage and company performance. *Uncertain Supply Chain Management*, 9(3), 696–704. <https://doi.org/10.5267/j.uscm.2021.4.009>
- Jenneboer, L., Herrando, C., & Constantinides, E. (2022). The Impact of Chatbots on Customer Loyalty: A Systematic Literature Review. *Journal of Theoretical and Applied Electronic Commerce Research*, 17(1), 212–229. <https://doi.org/10.3390/jtaer17010011>
- Joy Harwood, Richard Heifner, Keith Coble, Janet Perry, A. S. (1999). *Managing Risk in Farming: Concepts, Research, and Analysis* (Issue 774). Market and Trade Economics Division and Resource Economics Division, Economic Research Service.
- Kim, J., & Jung, H.-S. (2022). The Effect of Employee Competency and Organizational Culture on Employees' Perceived Stress for Better Workplace. *International Journal of Environmental Research and Public Health*, 19(8). <https://doi.org/10.3390/ijerph19084428>
- Krasyuk, I., Kolgan, M., & Medvedeva, Y. (2021). Development of an Ecosystem Approach and Organization of Logistics Infrastructure. *Transportation Research Procedia*, 54, 111–122. <https://doi.org/https://doi.org/10.1016/j.trpro.2021.02.054>
- Liao, Y.-K. (2015). The Role of Trust on Brand Loyalty and Brand Equity. *Joint International Conference*, pp. 603–612.
- Lufiati, L. O., & Suparna, G. (2023). The Influence of Digital Marketing on Repurchase Intentions Mediated by Trust in the Shopee Marketplace in Denpasar City. *International Journal of Social Science and Human Research*, 6(08), 4788–4794. <https://doi.org/10.47191/ijsshr/v6-i8-24>
- Mallik, A. K. (2023). The future of technology-based manufacturing in the European Union. *Results in Engineering*, 19, 101356. <https://doi.org/https://doi.org/10.1016/j.rineng.2023.101356>
- Mashange, G., & Briggeman, B. C. (2022). Assessing the financial condition and accounts receivable risk among US farmer cooperatives. *Agricultural Finance Review*, 82(2), 344–358. <https://doi.org/10.1108/AFR-06-2021-0080>
- Massari, G. F., Nacchiero, R., & Giannoccaro, I. (2023). Digital technologies for resource loop redesign in circular supply chains: A systematic literature review. *Resources, Conservation & Recycling Advances*, 20, 200189. <https://doi.org/https://doi.org/10.1016/j.rcradv.2023.200189>
- Miles, M. P., & Darroch, J. (2006). Large firms, entrepreneurial marketing processes, and the cycle of competitive Advantage. *European Journal of Marketing*, 40(5/6), 485–501. <https://doi.org/10.1108/03090560610657804>

- Molla, A., Beuving, J., & Ruben, R. (2020). Risk aversion, cooperative membership, and path dependences of smallholder farmers in Ethiopia. *Review of Development Economics*, 24(1), 167–187. <https://doi.org/10.1111/rode.12628>
- Muis, I., Adhi, T. M., & Kamalia, R. F. (2024). The Impact of Digital Marketing and Innovation on Marketing Performance Is Influenced Through the Development of a Competitive Advantage. *Revista de Gestao Social e Ambiental*, 18(8), 1–17. <https://doi.org/10.24857/rgsa.v18n8-081>
- Nekhili, M. (2021). ESG performance and market value: the moderating role of team member board representation. *International Journal of Human Resource Management*, 32(14), 3061–3087. <https://doi.org/10.1080/09585192.2019.1629989>
- Neramballi, A., Milios, L., Sakao, T., & Matschewsky, J. (2024). Toward a policy landscape to support the product-as-a-service design process for a circular economy. *Journal of Industrial Ecology*. <https://doi.org/10.1111/jiec.13535>
- Nguyen, P., & Robinson, A. (2015). Continuous improvement in Vietnam: Unique approaches for a unique culture. *Journal of Asia Business Studies*, pp. 9, 195–211. <https://doi.org/10.1108/JABS-11-2014-0093>
- Nour Aldeen, K., Ratih, I. S., & Sari Pertiwi, R. (2022). Cash waqf from the millennials' perspective: a case of Indonesia. *ISRA International Journal of Islamic Finance*, 14(1), 20–37. <https://doi.org/10.1108/IJIF-10-2020-0223>
- Nowak, M., Martineau, S., Sobottka, T., Ansari, F., & Schlund, S. (2024). An indicator scheme for improving the measurability of Sustainable Development Goals in manufacturing enterprises. *Procedia Computer Science*, 232, 655–664. <https://doi.org/https://doi.org/10.1016/j.procs.2024.01.065>
- Nyamekye, P., Lakshmanan, R., Tepponen, V., & Westman, S. (2024). Sustainability aspects of additive manufacturing: Leveraging resource efficiency via product design optimization and laser powder bed fusion. *Heliyon*, 10(1), e23152. <https://doi.org/https://doi.org/10.1016/j.heliyon.2023.e23152>
- Owusu, V. K., Gregar, A., & Ntsiful, A. (2021). Organizational diversity and competency-based performance: The mediating role of team member commitment and job satisfaction. *Management & Marketing*, 16(4), 352–369. <https://doi.org/doi:10.2478/mmcks-2021-0021>
- Patrick. (2021). Access to Finance and Sustainability of Small and Medium Enterprises in Central Uganda. *International Journal of Research and Innovation in Social Science (IDRISS)*, V(IX), 6. <https://www.rsisinternational.org/journals/ijriss/Digital-Library/volume-5-issue-9/263-268.pdf>
- Peretz-Andersson, E., Tabares, S., Mikalef, P., & Parida, V. (2024). Artificial intelligence implementation in manufacturing SMEs: A resource orchestration approach. *International Journal of Information Management*, 77, 102781. <https://doi.org/https://doi.org/10.1016/j.ijinfomgt.2024.102781>
- Rathod, H. S., Dixit, T., Huda, M., & Maselena, A. (2022). Market innovations driving competitive Advantage in MSMEs: An extensive literature review. *International Journal of Health ...*, 6(May), 6457–6469. <https://www.neliti.com/publications/430511/market-innovations-driving-competitive-advantage-in-msmes-an-extensive-literatur>
- RHEE, M., & STEPHENS, A. R. A. E. (2020). INNOVATION-ORIENTATED TECHNOLOGY ASSIMILATION STRATEGY AND KOREAN SMES' ENHANCING INNOVATION CAPABILITY, COMPETITIVE ADVANTAGE AND FIRM PERFORMANCE. *International Journal of Innovation Management*, 24(06), 2050081. <https://doi.org/10.1142/S1363919620500814>
- Rosenau-Tornow, D., Buchholz, P., Riemann, A., & Wagner, M. (2009). Assessing the long-term supply risks for mineral raw materials and evaluating past and future trends. *Resources Policy*, 34(4), 161–175. <https://doi.org/10.1016/j.resourpol.2009.07.001>
- Salsabilla, M., Aulia, D., & Maulany, S. (2024). Utilization Of Digital Marketing and Product Innovation In Improving Msme Marketing Performance In Talun District. *International Journal of Social Service and Research*, 4(05), 1227–1236. <https://doi.org/10.46799/ijssr.v4i05.778>
- Sari, D., Kusuma, B. A., Sihotang, J., & Febrianti, T. (2023). The role of entrepreneurial marketing & innovation capability in the performance of SMEs during COVID-19 pandemic: Evidence of

- MSMEs in West Java. *Cogent Business and Management*, 10(1).
<https://doi.org/10.1080/23311975.2023.2194091>
- Schmitt, T., Bejarano, R., & Assuad, C. (2024). Challenges and opportunities of automated data pipelines for environmental sustainability applications in industrial manufacturing. *Procedia CIRP*, 122, 623–628. <https://doi.org/https://doi.org/10.1016/j.procir.2024.01.089>
- Sopannah, A., Rusyad, Z., & Zulkarnain, Z. (2023). Optimizing Small Business Management through Collaborative Training and Education in Business Applications. *TGO Journal of Community Development*, 1(2), 45–50. <https://doi.org/10.56070/jcd.2023.008>
- Sugiarso, S., & Putra, I. G. S. (2020). The role of communication climate on the performance of PT. Lazada Express Bandung employees with work motivation as an intervening variable. *International Journal of Research in Business and Social Science*, 9(5), 160–165. <https://doi.org/https://doi.org/10.20525/ijrbs.v9i5.788>
- Supriyo, & Afifah, A. (2022). Application Of Digimco Media To Improve Student's Understanding. *International Journal Of Humanities Education and Social Sciences (IJHESS)*, 2(2), 487–492. <https://doi.org/10.55227/ijhess.v2i2.262>
- Thiraviyam, T. (2023). Artificial Intelligence Marketing. In *International Journal of Recent Research Aspects* (Vol. 19, Issue 4).
- Veselinova, E., & Samonikov, M. G. (2017). *We are building Brand Equity and Consumer Trust Through Radical Transparency Practices*. IGI Global. <https://books.google.co.id/books?id=P4wtDwAAQBAJ>
- Weerawardena, J. (2003). The role of marketing capability in innovation-based competitive strategy. *Journal of Strategic Marketing*, 11(1), 15–35. <https://doi.org/10.1080/0965254032000096766>
- Zameer, H, dkk. (2015). Impact of service quality, corporate image and customer satisfaction towards customers' perceived value in the banking sector in Pakistan. *International Journal of Bank Marketing*, 33(4).
- Jam, F. A., Mehmood, S., & Ahmad, Z. (2013). Time series model to forecast area of mangoes from Pakistan: An application of univariate ARIMA model. *Acad. Contemp. Res*, 2, 10-15.
- Thajeel, R. A., Hasan, J. A., & Al-Aridhi, D. T. N. (2024). Design and Enhancement Low-Level Laser Therapy System for Rheumatoid Arthritis. *Pakistan Journal of Life and Social Sciences*.