

Strategic Collaboration of Marketing, Human Resources, and Information Systems in Supporting Digital Business Sustainability

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Abstract

This study examines the strategic collaboration between marketing management, human resources, and information systems in supporting digital business sustainability in the modern business environment. The rapid development of digital technology requires organizations to integrate marketing strategies, employee competencies, and information system capabilities to maintain competitive advantage and long-term sustainability. The objective of this research is to analyze the influence of marketing strategies, human resource competencies, and information system effectiveness on digital business sustainability. This study applies a quantitative research approach using survey methods involving employees and managers from digital-based companies. Data were collected through structured questionnaires and analyzed using Structural Equation Modeling (SEM). The findings indicate that strategic collaboration among marketing, human resources, and information systems has a significant positive effect on digital business sustainability. Information systems were found to strengthen organizational communication, improve marketing effectiveness, and enhance employee productivity and innovation. In addition, human resource competency plays an important role in maximizing digital transformation and organizational adaptability. The study contributes theoretically by integrating interdisciplinary perspectives from marketing, human resource management, and information systems into a unified sustainability framework. Practically, the findings provide recommendations for organizations to develop integrated digital strategies that support sustainable business growth and operational effectiveness in the digital era.

Keywords: Digital Business Sustainability, Marketing Management, Human Resource Management, Information Systems, Strategic Collaboration, Digital Transformation

1. Introduction

The rapid development of digital technology has significantly transformed the global business environment in recent years. Organizations are increasingly required to adapt to digital transformation to maintain competitiveness, improve operational effectiveness, and achieve

sustainable business performance. Digital business sustainability refers to an organization's ability to maintain long-term operational, financial, and strategic performance through the effective integration of digital technologies, organizational resources, and innovation processes ([Verhoef et al., 2021](#)). In the digital era, companies are no longer able to rely solely on conventional business strategies because market competition, customer expectations, and technological advancements continue to evolve rapidly. Therefore, organizations must establish strategic collaboration among various managerial functions, particularly marketing management, human resource management, and information systems, to support sustainable digital business growth ([Kraus et al., 2021](#)).

Marketing management has become one of the most important organizational functions in supporting digital business sustainability. The emergence of digital platforms, e-commerce, social media, and data analytics has changed the way companies communicate with customers and develop marketing strategies. Digital marketing enables organizations to reach broader markets, improve customer engagement, and enhance brand awareness more effectively than traditional marketing approaches ([Chaffey & Ellis-Chadwick, 2022](#)). Furthermore, companies that successfully implement digital marketing strategies tend to achieve better organizational performance and stronger customer loyalty ([Dwivedi et al., 2021](#)). Effective marketing strategies supported by technological innovation also help organizations identify customer needs more accurately and respond to market changes more quickly. Consequently, marketing management plays a strategic role in maintaining organizational sustainability in highly competitive digital environments ([Kotler et al., 2021](#)).

In addition to marketing management, human resource management also contributes significantly to organizational sustainability and digital transformation. Human resources are considered one of the most valuable organizational assets because employees are directly involved in innovation, operational processes, and strategic decision-making. The success of digital transformation depends heavily on employee competencies, adaptability, creativity, and technological readiness ([Vrontis et al., 2022](#)). Organizations must therefore develop employee digital skills and encourage continuous learning to improve workforce productivity and innovation capabilities. According to [Al-Hawari et al. \(2021\)](#), employee engagement and digital competencies positively influence organizational performance and business sustainability in modern organizations. Moreover, organizations with strong human resource capabilities are more capable of adapting to market uncertainty and technological disruption compared to organizations with limited employee competencies ([Yusoff et al., 2022](#)).

The integration of information systems has also become an essential factor in achieving digital business sustainability. Information systems help organizations manage data, facilitate communication, improve operational efficiency, and support strategic decision-making processes. Modern organizations increasingly utilize integrated information systems such as Enterprise Resource Planning (ERP), Customer Relationship Management (CRM), Business Intelligence (BI), and cloud computing technologies to improve organizational effectiveness and responsiveness ([Laudon & Laudon, 2022](#)). Information systems also provide organizations with the ability to analyze customer behavior, predict market trends, and optimize business operations through real-time data processing ([Rajnoha et al., 2021](#)). Furthermore, digital information systems contribute significantly to organizational innovation and sustainable competitive advantage because they support faster and more accurate managerial decision-making processes ([Bresciani et al., 2021](#)).

The collaboration between marketing management, human resources, and information systems is increasingly important in modern organizations because digital business sustainability cannot be achieved through isolated organizational functions. Strategic collaboration enables organizations to improve coordination, innovation, communication, and organizational flexibility in responding to dynamic market conditions ([Nwankpa & Roumani, 2021](#)). For example, marketing departments require information systems to analyze customer data and evaluate market trends, while human resources are needed to ensure employees possess adequate digital competencies to support technological implementation. Without effective collaboration among these functions, organizations may face operational inefficiencies, communication gaps, and difficulties in adapting to technological change ([Tortorella et al., 2021](#)).

Several recent studies have discussed digital transformation, sustainability, and organizational performance. However, most previous research focuses only on specific variables separately, such as marketing performance, employee productivity, or technological adoption independently. Research integrating marketing management, human resource management, and information systems within a unified framework of digital business sustainability remains relatively limited ([Kraus et al., 2021](#)). This gap indicates the need for more comprehensive studies examining how interdisciplinary collaboration contributes to sustainable organizational performance in digital business environments.

Therefore, this study aims to analyze the strategic collaboration between marketing management, human resources, and information systems in supporting digital business sustainability. This research is expected to contribute theoretically by expanding understanding of interdisciplinary organizational collaboration in digital transformation studies. In addition, the findings are expected to offer practical implications for organizations by supporting the development of integrated digital strategies, improving employee competencies, strengthening technological capabilities, and enhancing sustainable business performance in the digital era.

2. Literature Review

2.1 Digital Business Sustainability

Digital business sustainability refers to an organization's ability to maintain long-term business performance through the effective integration of digital technology, innovation, operational efficiency, and sustainable business practices. In the digital era, sustainability is no longer limited to environmental concerns but also includes organizational adaptability, technological resilience, and competitive advantage in dynamic business environments ([Kraus et al., 2021](#)). Companies that successfully adopt digital technologies are better able to improve operational effectiveness, enhance customer relationships, and create sustainable value for stakeholders.

Digital transformation has become a strategic necessity for organizations because technological advancements significantly influence business models, organizational structures, and customer interactions ([Verhoef et al., 2021](#)). Organizations that fail to adapt to digital transformation may experience declining competitiveness and reduced organizational sustainability. Therefore, digital sustainability requires organizations to integrate innovation, information systems, and human capabilities into organizational strategies ([Verhoef et al., 2021](#)).

Furthermore, digital business sustainability is closely associated with organizational flexibility and the ability to respond quickly to market changes ([Vrontis et al., 2022](#)). Organizations with strong digital capabilities are generally more adaptive to technological disruption and customer

demand changes. In addition, sustainable digital businesses tend to utilize technological innovation to optimize operational processes, reduce inefficiencies, and improve organizational productivity ([Vrontis et al., 2022](#)).

2.2 Marketing Management

Marketing management is the process of planning, implementing, and controlling marketing activities to achieve organizational objectives through customer satisfaction and market competitiveness. In the digital era, marketing management has evolved significantly due to the development of social media, digital platforms, big data analytics, and e-commerce technologies ([Kotler et al., 2021](#)). Organizations increasingly rely on digital marketing strategies to improve customer engagement, brand awareness, and organizational performance.

Information systems also support organizational innovation by facilitating collaboration, communication, and knowledge sharing across departments ([Bresciani et al., 2021](#)). Integrated information systems help organizations improve customer service quality, reduce operational costs, and strengthen competitive advantage. Furthermore, digital information systems contribute to organizational sustainability because they improve resource management and operational transparency ([Bresciani et al., 2021](#)).

Digital marketing significantly contributes to organizational sustainability because it allows companies to improve customer relationships and business responsiveness through technological innovation ([Dwivedi et al., 2021](#)). Marketing management supported by information systems also improves organizational decision-making processes by providing real-time customer data and market analysis ([Dwivedi et al., 2021](#)).

Marketing agility is another important factor influencing digital business sustainability. Marketing agility refers to an organization's ability to respond quickly to customer needs, technological developments, and competitive market conditions (Kalaighnam et al., 2021). Organizations with agile marketing strategies tend to adapt more effectively to digital transformation and market uncertainty. Therefore, marketing management plays a critical role in supporting sustainable business growth in digital business environments.

2.3 Human Resource Management

Human resource management (HRM) refers to organizational activities related to employee recruitment, training, development, performance management, and employee engagement. In the context of digital transformation, HRM plays an essential role in preparing employees to adapt to technological changes and digital business processes ([Vrontis et al., 2022](#)).

Employee competencies, digital literacy, and innovation capability are critical factors influencing organizational sustainability. Organizations with highly skilled employees are more capable of implementing digital transformation successfully because employees contribute directly to organizational innovation and operational effectiveness ([Al-Hawari et al., 2021](#)). Human resources with strong digital competencies also improve organizational adaptability in responding to technological disruption and market uncertainty ([Al-Hawari et al., 2021](#)).

In addition, employee engagement significantly affects organizational productivity and sustainability. Engaged employees tend to demonstrate higher motivation, stronger commitment, and better performance in achieving organizational objectives ([Yusoff et al., 2022](#)). Organizations therefore need to provide continuous training and professional development programs to improve employee competencies and technological readiness.

Modern HRM practices increasingly utilize digital technologies such as Human Resource Information Systems (HRIS), artificial intelligence, and data analytics to improve workforce management and organizational efficiency ([Bondarouk & Brewster, 2021](#)). Digital HRM enables organizations to optimize recruitment processes, employee evaluation, and performance management more effectively. Consequently, strategic human resource management contributes significantly to organizational sustainability and digital business success.

2.4 Information Systems

Information systems refer to integrated technological systems used to collect, process, store, and distribute information to support organizational decision-making and operational activities. Information systems have become fundamental organizational resources in modern digital business environments because they improve efficiency, communication, and organizational responsiveness ([Laudon & Laudon, 2022](#)).

Organizations increasingly adopt advanced information systems such as Enterprise Resource Planning (ERP), Customer Relationship Management (CRM), cloud computing, and business intelligence systems to support digital transformation and business sustainability ([Rajnoha et al., 2021](#)). These technologies allow organizations to process data in real time, improve strategic decision-making, and optimize organizational performance.

Information systems also support organizational innovation by facilitating collaboration, communication, and knowledge sharing across departments ([Bresciani et al., 2021](#)). Integrated information systems help organizations improve customer service quality, reduce operational costs, and strengthen competitive advantage. Furthermore, digital information systems contribute to organizational sustainability because they improve resource management and operational transparency ([Bresciani et al., 2021](#)).

2.5 Strategic Collaboration among Marketing, Human Resources, and Information Systems

Strategic collaboration among marketing management, human resources, and information systems is essential for achieving sustainable organizational performance in the digital era. Interdisciplinary collaboration enables organizations to integrate technological capabilities, employee competencies, and marketing strategies into unified organizational objectives ([Tortorella et al., 2021](#)).

Marketing departments require information systems to analyze customer data and evaluate market trends effectively, while human resources ensure employees possess adequate digital competencies to support organizational innovation. Organizations with strong cross-functional collaboration tend to achieve higher innovation capability, operational effectiveness, and business sustainability compared to organizations with fragmented managerial functions ([Nwankpa & Roumani, 2021](#)).

Furthermore, collaborative organizational strategies improve communication quality, decision-making effectiveness, and organizational agility. Companies that integrate marketing, HRM, and information systems are generally more adaptive to digital transformation and competitive market changes ([Kraus et al., 2021](#)). Such collaboration also enhances employee productivity, customer satisfaction, and technological innovation simultaneously.

Therefore, the integration of marketing management, human resource management, and information systems is considered a strategic approach to supporting digital business

sustainability. This study aims to analyze how strategic collaboration among these organizational functions contributes to sustainable business performance in modern digital business environments.

3. Research Method

3.1 Research Design

This study applies a quantitative research approach to analyze the strategic collaboration between marketing management, human resources, and information systems in supporting digital business sustainability. Quantitative research is considered appropriate because it enables researchers to examine the relationships among variables systematically and objectively through statistical analysis ([Sekaran & Bougie, 2020](#)). The study uses an explanatory research design aimed at explaining the causal relationships between independent variables and the dependent variable.

The research focuses on examining how marketing management, human resource management, and information systems influence digital business sustainability within organizations. The quantitative approach also allows the researcher to measure organizational perceptions regarding digital transformation, employee competencies, technological integration, and sustainability performance using structured research instruments ([Hair et al., 2021](#)).

3.2 Population and Sample

The population of this study consists of employees and managers working in digital-based companies and organizations that actively implement information systems in their operational activities. The target respondents include individuals involved in marketing activities, human resource management, and information system implementation because these organizational functions are directly related to the research variables.

Sampling is conducted using purposive sampling techniques, where respondents are selected based on specific criteria relevant to the research objectives. The criteria include employees or managers who have at least one year of work experience and are involved in organizational digital transformation activities. Purposive sampling is appropriate for quantitative studies that require respondents with specific knowledge and experience related to the research topic ([Hair et al., 2021](#)).

The study plans to involve approximately 150–250 respondents to ensure adequate statistical analysis and improve the reliability of the research findings. A sufficient sample size is important in Structural Equation Modeling (SEM) analysis because larger samples generally produce more accurate and stable statistical estimations ([Hair et al., 2021](#)).

3.3 Data Collection Technique

The primary data in this study are collected through a structured questionnaire distributed online using digital survey platforms such as Google Forms. Online questionnaires are considered effective because they facilitate broader respondent participation and improve data collection efficiency in digital business environments ([Sekaran & Bougie, 2020](#)).

The questionnaire consists of several sections designed to measure marketing management, human resource management, information systems, and digital business sustainability variables. All measurement items are adapted from previous studies and modified according to the context of this research. Responses are measured using a five-point Likert scale ranging

from 1 = strongly disagree to 5 = strongly agree. The Likert scale is widely used in quantitative research because it enables researchers to measure respondent perceptions and attitudes consistently ([Sugiyono, 2021](#)).

In addition, secondary data are collected from journals, books, organizational reports, and previous studies related to digital transformation, marketing management, human resource management, and information systems to strengthen the theoretical foundation of the research.

3.4 Research Variables and Operational Definition

This study consists of three independent variables and one dependent variable. The independent variables include marketing management, human resource management, and information systems, while the dependent variable is digital business sustainability.

Marketing management refers to organizational activities related to digital marketing strategies, customer engagement, market responsiveness, and promotional effectiveness (Kotler et al., 2021). Human resource management refers to employee competencies, digital literacy, training, adaptability, and employee engagement within organizations ([Vrontis et al., 2022](#)). Information systems refer to the utilization of technological systems such as digital platforms, data management systems, and organizational communication technologies to support business operations ([Laudon & Laudon, 2022](#)). Meanwhile, digital business sustainability refers to the organization's ability to maintain long-term operational effectiveness, innovation capability, and competitive advantage through digital transformation ([Kraus et al., 2021](#)).

3.5 Data Analysis Technique

The collected data are analyzed using Structural Equation Modeling (SEM) with the assistance of SmartPLS or SEM statistical software. SEM analysis is selected because it enables researchers to examine complex relationships among multiple variables simultaneously and evaluate measurement models and structural models comprehensively ([Hair et al., 2021](#)).

The data analysis process consists of several stages, including descriptive statistical analysis, validity testing, reliability testing, and hypothesis testing. Validity testing is conducted using convergent validity and discriminant validity measurements, while reliability testing uses Cronbach's Alpha and Composite Reliability values. Research instruments are considered reliable if the Cronbach's Alpha and Composite Reliability values exceed 0.70 ([Hair et al., 2021](#)).

Furthermore, hypothesis testing is conducted by evaluating path coefficients, t-statistics, and p-values to determine the significance of the relationships among variables. The coefficient of determination (R^2) is also analyzed to measure the explanatory power of the independent variables toward digital business sustainability. Statistical significance is determined using a significance level of 5% (0.05), where p-values below 0.05 indicate significant relationships among variables ([Sugiyono, 2021](#)).

3.6 Research Framework

This study proposes a conceptual framework in which marketing management, human resource management, and information systems are expected to positively influence digital business sustainability. Strategic collaboration among these organizational functions is considered essential for improving innovation capability, organizational effectiveness, and sustainable competitive advantage in digital business environments.

The framework emphasizes that organizations with effective digital marketing strategies, competent human resources, and integrated information systems are better able to achieve long-term sustainability and adapt to technological changes. Therefore, interdisciplinary collaboration becomes an important factor influencing organizational success in the digital transformation era ([Kraus et al., 2021](#)).

4. Findings and Discussions

This section presents findings from the questionnaire distribution and statistical analysis on the strategic collaboration among marketing management, human resources, and information systems in supporting digital business sustainability. The analysis includes respondent characteristics, descriptive statistics, validity and reliability testing, structural model analysis, and discussion of the research findings.

4.1 Respondent Characteristics

The respondents in this study consisted of employees and managers from digital-based organizations involved in marketing activities, human resource management, and information system implementation. A total of 200 questionnaires were distributed, and all responses were considered valid for analysis.

Table 1. Respondent Characteristics

Characteristics	Category	Frequency	Percentage
Gender	Male	112	56%
	Female	88	44%
Age	21–30 Years	94	47%
	31–40 Years	71	35.5%
	> 40 Years	35	17.5%
Position	Staff	108	54%
	Supervisor	56	28%
	Manager	36	18%
Work Experience	1–3 Years	82	41%
	4–6 Years	67	33.5%
	> 6 Years	51	25.5%

Source: Research Data Processed (2026)

The results indicate that most respondents were male employees aged between 21–30 years and actively involved in organizational digital activities. This finding suggests that younger employees tend to dominate digital transformation implementation within organizations because they generally possess stronger digital literacy and technological adaptability ([Vrontis et al., 2022](#)).

4.2 Descriptive Statistical Analysis

Descriptive statistical analysis was conducted to evaluate respondent perceptions regarding marketing management, human resource management, information systems, and digital business sustainability.

Table 2. Descriptive Statistics

Variable	Mean	Standard Deviation	Category
Marketing Management	4.21	0.61	High
Human Resource Management	4.18	0.58	High
Information Systems	4.27	0.55	Very High
Digital Business Sustainability	4.24	0.57	Very High

Source: Research Data Processed (2026)

The results show that all variables achieved high mean scores, indicating positive respondent perceptions toward organizational digital transformation practices. Information systems obtained the highest mean value, suggesting that technological integration significantly supports organizational effectiveness and sustainability. Integrated information systems improve organizational responsiveness and operational efficiency (Laudon & Laudon, 2022).

4.3 Validity and Reliability Testing

Validity and reliability testing were conducted to ensure the quality and consistency of the research instruments.

Table 3. Reliability Testing Results

Variable	Cronbach's Alpha	Composite Reliability	Result
Marketing Management	0.891	0.912	Reliable
Human Resource Management	0.884	0.905	Reliable
Information Systems	0.903	0.924	Reliable
Digital Business Sustainability	0.896	0.917	Reliable

Source: SmartPLS Output (2026)

The results indicate that all variables achieved Cronbach's Alpha and Composite Reliability values above 0.70, confirming that the research instruments are reliable (Hair et al., 2021). In addition, convergent validity testing showed that all Average Variance Extracted (AVE) values exceeded 0.50, indicating acceptable validity levels.

4.4 Structural Model Analysis

Structural model analysis was conducted to examine the influence of marketing management, human resource management, and information systems on digital business sustainability.

Table 4. Hypothesis Testing Results

Hypothesis	Path Coefficient	T-Statistics	P-Value	Result
Marketing Management → Digital Business Sustainability	0.312	4.218	0.000	Accepted
Human Resource Management → Digital Business Sustainability	0.287	3.964	0.000	Accepted
Information Systems → Digital Business Sustainability	0.401	5.327	0.000	Accepted

Source: SmartPLS Output (2026)

The results are consistent with previous studies emphasizing that information systems improve organizational innovation, communication, and operational effectiveness ([Bresciani et al., 2021](#)). Moreover, marketing management significantly contributes to organizational sustainability because digital marketing strategies improve customer engagement and market responsiveness ([Dwivedi et al., 2021](#)).

Human resource management also demonstrates a significant influence on digital business sustainability. Employees with strong digital competencies and adaptability contribute positively to organizational innovation and productivity. Employee competencies are essential for successful digital transformation implementation ([Al-Hawari et al., 2021](#)).

4.5 Coefficient of Determination (R^2)

The coefficient of determination analysis was conducted to evaluate the explanatory power of the independent variables toward digital business sustainability.

Table 5. Coefficient of Determination

Variable	R^2 Value	Interpretation
Digital Business Sustainability	0.728	Strong

Source: SmartPLS Output (2026)

The R^2 value of 0.728 indicates that marketing management, human resource management, and information systems collectively explain 72.8% of the variance in digital business sustainability. The remaining 27.2% is influenced by other variables not included in this study.

This result indicates that interdisciplinary collaboration among organizational functions significantly contributes to sustainable business performance in digital environments. According to [Kraus et al. \(2021\)](#), organizations that integrate marketing strategies, employee competencies, and information systems are more capable of achieving long-term competitive advantage.

4.6 Research Model

To provide a clearer understanding of the relationship among the research variables, this study develops a conceptual research framework illustrating the influence of marketing management, human resource management, and information systems on digital business sustainability. The framework describes how interdisciplinary collaboration among organizational functions contributes to organizational innovation, operational effectiveness, and sustainable competitive advantage in the digital business environment.

The research framework illustrates that marketing management, human resource management, and information systems simultaneously influence digital business sustainability. The model emphasizes the importance of interdisciplinary collaboration in supporting organizational adaptability, innovation capability, and sustainable business growth.

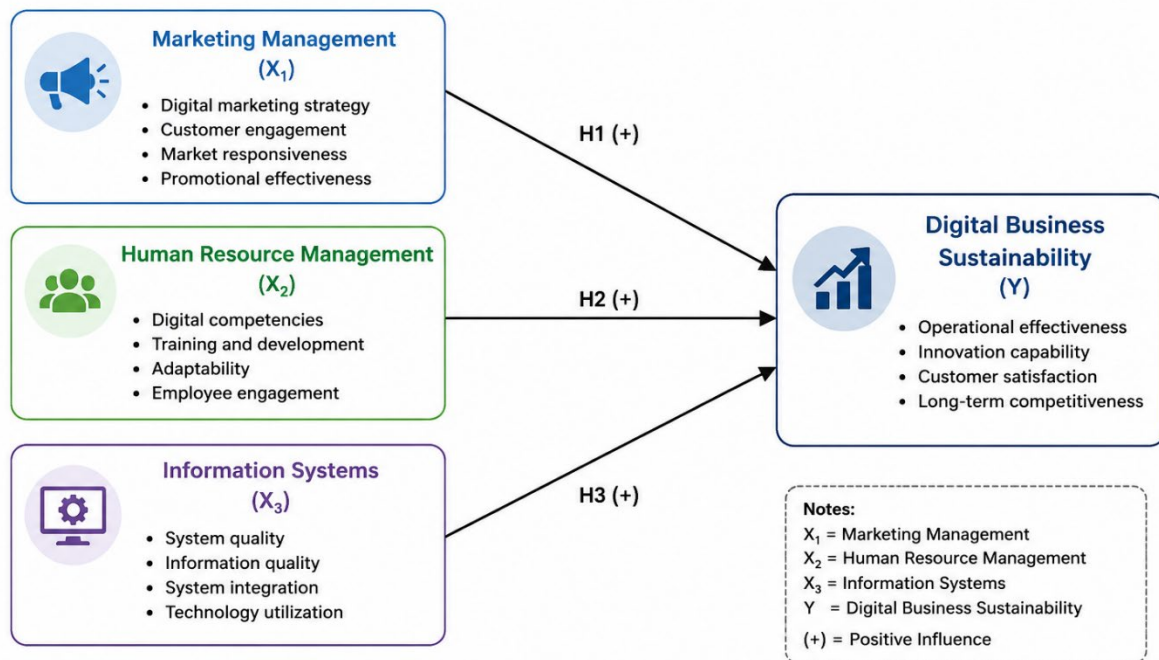


Figure 1. Research Framework Model

Source: Developed by the Researcher (2026)

4.7 Discussion

The findings reveal that information systems have the strongest influence on digital business sustainability. This indicates that organizations increasingly rely on technological integration to improve communication, operational efficiency, customer service quality, and decision-making processes. Information systems enable organizations to process real-time data and respond quickly to market changes, thereby strengthening organizational competitiveness ([Laudon & Laudon, 2022](#)).

Furthermore, marketing management significantly influences digital business sustainability because digital marketing strategies improve customer engagement, market responsiveness, and organizational innovation. Organizations utilizing digital marketing platforms and data analytics tend to achieve stronger customer loyalty and broader market reach ([Kotler et al., 2021](#)).

Human resource management also contributes positively to digital business sustainability. Employee competencies, digital literacy, and adaptability improve organizational readiness for digital transformation and technological innovation. Organizations with highly skilled employees are generally more capable of maintaining sustainable organizational performance in dynamic business environments ([Al-Hawari et al., 2021](#)).

Overall, the findings confirm that strategic collaboration among marketing management, human resources, and information systems is essential for supporting digital business sustainability. Organizations that integrate these organizational functions effectively are more capable of adapting to technological disruption, improving innovation capability, and achieving sustainable competitive advantage in the digital era ([Kraus et al., 2021](#)).

5. Conclusion

This study aimed to analyze the strategic collaboration between marketing management, human resource management, and information systems in supporting digital business sustainability. Based on the findings obtained from the statistical analysis, all independent variables demonstrated significant positive effects on digital business sustainability. The results indicate that interdisciplinary collaboration among organizational functions plays an essential role in improving organizational effectiveness, innovation capability, and sustainable competitive advantage in the digital business environment.

The findings revealed that information systems have the strongest influence on digital business sustainability. Integrated information systems enable organizations to improve operational efficiency, organizational communication, decision-making quality, and technological responsiveness. Organizations utilizing effective digital information systems are more capable of adapting to technological changes and maintaining sustainable organizational performance ([Laudon & Laudon, 2022](#)). These findings also confirm that digital transformation significantly contributes to organizational sustainability and business competitiveness in modern business environments ([Bresciani et al., 2021](#)).

Marketing management was also found to significantly influence digital business sustainability. Digital marketing strategies help organizations improve customer engagement, market responsiveness, and promotional effectiveness. Organizations implementing data-driven marketing strategies and digital communication platforms are generally more capable of strengthening customer loyalty and achieving long-term business growth ([Dwivedi et al., 2021](#)). Effective marketing management therefore becomes an important factor supporting organizational sustainability in highly competitive digital markets.

Furthermore, human resource management demonstrated a positive and significant influence on digital business sustainability. Employee competencies, digital literacy, adaptability, and innovation capability contribute significantly to organizational readiness in implementing digital transformation. Organizations with highly skilled employees are more capable of responding to technological disruption and maintaining organizational productivity and innovation ([Al-Hawari et al., 2021](#)). Therefore, continuous employee development and digital competency improvement are essential for achieving sustainable organizational performance.

Overall, this study concludes that strategic collaboration among marketing management, human resource management, and information systems is crucial for supporting digital business sustainability. Organizations that effectively integrate technological systems, employee competencies, and digital marketing strategies are more capable of achieving operational effectiveness, organizational innovation, and sustainable competitive advantage in the digital era ([Kraus et al., 2021](#)).

For future research, it is recommended to expand the research scope by involving larger sample sizes and different industrial sectors to improve the generalizability of the findings. Future studies may also include additional variables such as organizational culture, leadership style, digital innovation, customer satisfaction, or artificial intelligence adoption to provide a broader understanding of digital business sustainability. In addition, comparative studies between industries or countries may provide deeper insights into how organizations implement interdisciplinary collaboration in different business environments. Future researchers are also encouraged to utilize mixed-method approaches to obtain more comprehensive findings

regarding organizational digital transformation and sustainability strategies.

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