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Analysis of Determinants of Business Performance Through Digital Platforms in Indonesian State-Owned (BUMN) Construction Industry

Bobby Iman Setya¹, Willy Arafah², Justine Tanuwijaya³

¹ Faculty of Economics and Business, Universitas Trisakti, Jakarta, Indonesia

² Faculty of Economics and Business, Universitas Trisakti, Jakarta, Indonesia

³ Faculty of Economics and Business, Universitas Trisakti, Jakarta, Indonesia

Corresponding Author: setyakusuma25@gmail.com¹

Abstract: This study aims to explore the determinants of business performance through the utilization of digital platforms in the marketing activities of BUMN (state-owned enterprises). It specifically investigates how product-market strategy, value co-creation, and marketing capability influence business performance, both directly and indirectly, with digital platforms acting as a mediating variable. The research uses a quantitative approach with Structural Equation Modeling–Partial Least Squares (SEM–PLS) and processes the data using SmartPLS software. Data collection was conducted through a survey involving BUMN in the construction and infrastructure sectors. The study analyzes variables such as product-market strategy, value co-creation, marketing capability, digital platforms, and business performance. The results demonstrate that product-market strategy, value co-creation, and marketing capability significantly affect both digital platforms and business performance. Furthermore, digital platforms mediate and strengthen the relationship between these marketing factors and business performance. This research emphasizes the importance of integrating marketing strategies with digital technologies such as Customer Relationship Management (CRM) Digital Platforms, Enterprise Resource Planning (ERP), and Building Information Modeling (BIM) to enhance efficiency, innovation, and competitiveness. The findings offer practical implications for BUMN management to leverage digital transformation for improved competitiveness and business sustainability in the digital age

Keyword: Business performance, Digital Platform, Product–Market Strategy, Value Co-Creation, Marketing Capability, BUMN Construction

INTRODUCTION

The construction industry plays a vital role in both global and national economies. This sector directly contributes to Gross Domestic Product (GDP) and supports infrastructure development, which is a foundation for long-term economic growth (Chiang et al., 2015). High-quality

infrastructure is essential for improving productivity, enhancing mobility of goods and people, and strengthening regional connectivity. As such, the construction sector is not only linked to job creation and economic growth but also contributes significantly to enhancing the quality of life for society. Given its significant contribution to the economy, the construction industry is subject to numerous challenges and dynamics. In recent years, despite considerable progress in some large-scale infrastructure projects, the sector has encountered a series of issues that have hindered its growth. Many construction companies, especially State-Owned Enterprises (SOEs), are facing financial difficulties. In Indonesia, for example, several state-owned construction companies have struggled to manage their projects efficiently, with some experiencing severe financial pressure. What was once the backbone of the economy, the construction sector, is now confronting substantial challenges in maintaining its performance.

One of the main challenges faced by the industry is its heavy reliance on government financing, which often leads to delays in payments and disruptions in project timelines. SOEs in Indonesia's construction sector, such as PT Wijaya Karya and PT Adhi Karya, frequently struggle with balancing their cash flow. This issue is compounded by low-profit margins on some projects, which are driven by factors such as rising material prices, currency fluctuations, and time-consuming permitting and administrative processes (Umar & Soedjono, 2018). In addition to financial challenges, the construction industry faces difficulties in project management and human resource management. Many companies experience difficulties in managing time and resources efficiently, leading to delays in project completion. A contributing factor to this is suboptimal project management, where discrepancies between planning and execution often arise. Furthermore, conflicts within project teams, both internal and external, frequently create obstacles that impede construction processes and reduce overall productivity (Assaf & Al-Hejji, 2006). The intense competition in the construction market is another significant issue. In Indonesia, the construction sector has entered a phase of increasing competition, with both large and small companies competing for government and private-sector projects. This situation adds complexity to project management, as companies must become more diligent in managing risks and optimizing costs. Many construction firms struggle to maintain their market share due to new entrants offering lower prices or having more efficient resources, particularly in terms of technology (Zhou et al., 2012).

There is an increasing reliance on technology and innovation as a key factor in overcoming these challenges. The use of technology in the construction process can significantly improve operational efficiency and reduce costs. Technologies such as Building Information Modeling (BIM), Internet of Things (IoT), and robotics are increasingly being applied in large-scale construction projects. For instance, the use of BIM helps in planning and modeling projects digitally, allowing companies to visualize and plan each project phase more accurately and efficiently (Azhar, 2011). IoT technology also plays a crucial role in monitoring material and equipment conditions in real-time, enabling companies to detect issues early and reduce downtime (McKinsey, 2017). Despite the immense potential of technology, its adoption in Indonesia's construction industry is still relatively low compared to developed countries. The primary barriers to technology adoption include high initial costs for equipment and training, as well as the lack of technical knowledge and skills among workers. Therefore, to ensure effective integration of technology into the construction sector, efforts must be made to improve digital literacy and technical skills within the workforce (Koh & Kadir, 2015).

Sustainability in development is becoming increasingly important in the construction sector. With growing awareness of climate change and its environmental impact, many countries are now implementing policies that encourage more environmentally friendly construction

practices. In Indonesia, government policies supporting sustainable development, such as reducing carbon emissions and using eco-friendly building materials, have become integral to the national infrastructure development agenda. Construction companies that adopt sustainability principles at every stage of their projects will be better positioned in a market that increasingly demands social and environmental responsibility (Gandhi & Luthra, 2016). Furthermore, the construction sector in Indonesia faces challenges in labor management. Many workers in the sector lack sufficient training, which often results in subpar work quality. While there is an availability of skilled labor, the lack of long-term plans for skill development and professional training remains an issue. Therefore, to improve human resource quality in the construction sector, policies supporting ongoing training and skill development need to be prioritized (Gunningham & Sinclair, 2018).

In response to these challenges, this study aims to explore the factors affecting the performance of the construction industry, particularly in relation to financial issues, project management, technology utilization, and labor quality. A better understanding of these issues will contribute to developing more effective solutions for improving the performance of the sector. By improving in these key areas, the construction industry in Indonesia can become more competitive and support sustainable national development.

LITERATURE REVIEW

Theoretical Foundation

The theoretical foundation of this research is the Resource-Based View (RBV), which emphasizes the importance of internal resources and capabilities in achieving competitive advantage. According to RBV, a firm's unique resources and capabilities are critical to gaining a competitive edge, and these resources must be effectively utilized to create a value proposition that differentiates the firm from its competitors (Barney et al., 2021; Mishra et al., 2019). The RBV suggests that a company can achieve sustained competitive advantage if it possesses resources that are valuable, rare, inimitable, and non-substitutable (VRIN criteria) (Mansour et al., 2022). These resources include financial, physical, human, technological, informational, and organizational assets (Amin, 2018). For construction companies, RBV suggests that market-product strategies, such as service differentiation or market penetration, manifest how internal resources (e.g., technical expertise, past project reputation) can create a unique value proposition that is difficult to replicate (Dasuki, 2021). Additionally, marketing capability is considered a key strategic capability, as it enables firms to respond to market needs, build relationships with clients, and communicate their value proposition effectively (Sipos et al., 2025). In construction, value co-creation reflects a dynamic capability that allows companies to collaborate with clients, subcontractors, and stakeholders to create shared value, a concept aligned with RBV (Huang et al., 2025).

Moreover, digital platforms, such as cloud-based project management systems, BIM, and collaborative portals, play an intervening role in this process. These platforms are seen as strategic resources that support marketing capabilities and value co-creation, enabling firms to integrate internal and external resources more effectively, which results in a sustained competitive advantage (Wibisono & Supoyo, 2023).

Business Performance in Construction

In the construction industry, business performance reflects the success of a firm in achieving its strategic objectives, such as operational efficiency, cost and time control, profitability, and client satisfaction. Several recent empirical studies indicate that factors such as project innovation, organizational culture, and dynamic capabilities significantly influence business performance. Business performance is a result of all organizational activities and reflects how

resources and investments are used to achieve organizational goals effectively and efficiently (Wakiso, 2025). Performance measurement encompasses financial, market, and operational aspects, ensuring the long-term success of a company (Chandra, 2023). According to Yolanda et al. (2022), business performance is measured by various indicators, including sales growth, profit growth, asset growth, customer numbers, and market reach, all of which indicate how well a company can expand its market and maintain its competitiveness in the long term.

In the construction industry, business performance is multidimensional and includes financial outcomes as well as operational efficiency, innovation, and sustainability. Studies have shown that factors like project innovation, organizational culture, and the adoption of dynamic capabilities, such as the use of digital platforms, have a significant influence on improving business performance (Safina, 2025).

Digital Platforms

A digital platform is a software-based system that enables user interactions and transactions online. Leong et al. (2025) explain that platformization refers to the dominance of large tech companies acting as intermediaries in economic and social activities. Digital platforms also aggregate data to help users manage information, match supply and demand, and facilitate collaboration for new content creation (Sanistasya et al., 2023). In the context of construction, digital platforms like BIM, ERP systems, and cloud-based project management systems can enhance operational efficiency, improve project management, and foster collaboration among stakeholders (Jiang et al., 2023).

The integration of digital platforms allows firms to manage data, communicate more effectively, and make real-time decisions, which contributes to improved performance across various dimensions, including cost, schedule, quality, and client satisfaction (Rahayu et al., 2025).

Product Market Strategy

Product-market strategy refers to a firm's plan to align its products or services with specific market segments to achieve growth and profitability. This strategy involves decisions about which markets to target and what products to offer, considering market needs, competition, and the firm's capabilities (Hajda & Nikolov, 2022). According to Yarbrough et al. (2021), product-market strategy is a key element of strategic marketing, as it defines how a company positions itself in the market and ensures that it achieves performance and maintains a competitive advantage.

In the construction sector, product-market strategy includes differentiation strategies, market expansion planning, and adjustments based on customer needs (Jung et al., 2023). It allows construction companies to build a market leadership position and attract loyal customers by offering value-added services and tailored solutions. A well-designed product-market strategy enables companies to improve their competitive advantage, profitability, and market share (Artanti et al., 2022).

Value Co-Creation

Value co-creation is the process in which companies collaborate with customers and other stakeholders to jointly create value. Barney et al. (2021) define value co-creation as the process of generating economic benefits for stakeholders, such as shareholders, customers, employees, and society at large. In construction, value co-creation occurs when clients and contractors collaborate to achieve mutually beneficial outcomes, improving project performance and business success (Samans & Nelson, 2022). The ability to create value is essential for gaining a competitive edge in a competitive market. According to Matarazzo et al. (2021), companies that engage in effective

value co-creation can improve customer satisfaction, increase loyalty, and enhance their reputation, which ultimately drives business performance.

In the digital age, platforms such as e-commerce and social media play a crucial role in facilitating this process by enabling real-time interaction and collaboration (Handayani et al., 2024).

Marketing Capability

Marketing capability refers to an organization's ability to plan and implement effective marketing activities to achieve strategic objectives. According to Brown et al. (2019), marketing capabilities include skills, processes, resources, and technologies that enable a firm to understand its customers, create value, and manage customer relationships better than competitors. In the construction sector, strong marketing capabilities are critical for winning projects, building a solid reputation, and achieving sustainable growth (Shlepneva & Maletina, 2021). Effective marketing capabilities enable construction firms to engage with customers, understand their needs, and communicate their value proposition clearly, which enhances business performance.

Marketing capabilities in construction also include digital marketing, client relationship management (CRM), and the ability to adapt to changing market trends (Osman et al., 2023).

Hypotheses Development

Based on the reviewed literature, the following hypotheses have been developed to guide this study:

H1: Product market strategy has a positive effect on the use of digital platforms.

H2: Value co-creation has a positive effect on the use of digital platforms.

H3: Marketing capability has a positive effect on the use of digital platforms.

H4: Product market strategy has a positive effect on business performance.

H5: Value co-creation has a positive effect on business performance.

H6: Marketing capability has a positive effect on business performance.

H7: Digital platforms have a positive effect on business performance.

H8: Digital platforms mediate the relationship between product market strategy and business performance.

H9: Digital platforms mediate the relationship between value co-creation and business performance.

H10: Digital platforms mediate the relationship between marketing capability and business performance.

Conceptual Framework

The conceptual framework in this study posits that **business performance** is the dependent variable influenced by various independent variables: product-market strategy, value co-creation, and marketing capability. Product-market strategy refers to how a company positions its construction services in the market, while value co-creation and marketing capability reflect the company's ability to collaborate with customers and leverage marketing resources, respectively.

Digital platforms act as a mediator, facilitating the integration of these strategies and capabilities to enhance business performance. By utilizing digital tools like BIM and ERP systems, firms can optimize operations, improve client relationships, and streamline project management. The framework emphasizes the importance of combining these strategies and capabilities to achieve optimal business performance in the construction industry.

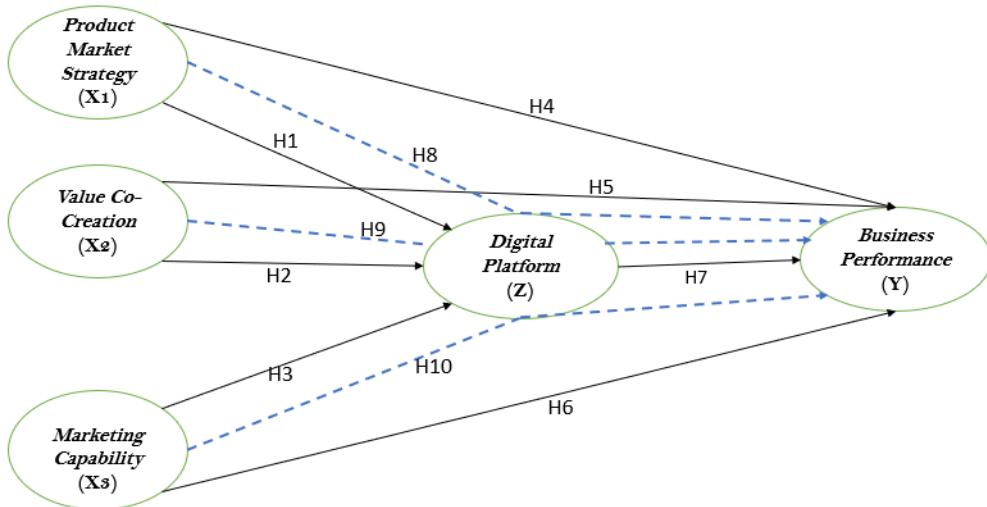


Figure 1. Research Framework

METHOD

This research uses a quantitative research design, focusing on the collection and analysis of numerical data. The data, which is collected through surveys, aims to establish causal relationships between independent and dependent variables. The primary objective of the research is to test hypotheses regarding the relationships between these variables. The data collected is processed using statistical tests to explain the relationships among the variables under study. The research employs hypothesis testing, where the main goal is to determine if significant relationships exist between the variables, as derived from previous studies or theoretical frameworks. This method allows for examining the potential effects and interrelations between the variables, contributing to a more comprehensive understanding of the phenomena under investigation.

The unit of analysis in this study consists of individuals such as Assistant Managers, Managers, and Supervisors. Data collection will be cross-sectional, meaning that data will be gathered at a single point in time, providing a snapshot of the current state and enabling the analysis of relationships between variables at that moment. This approach is particularly suited for understanding current conditions and relationships between different factors in the construction industry. The data collection period for this study spans from December 2024 to August 2025, involving eight construction companies in Indonesia, each contributing to the sample of respondents. The operational definitions of variables include three independent variables, one mediating variable, and one dependent variable. The independent variables are product market strategy, value co-creation, and marketing capability. The mediating variable is digital platform, and the dependent variable is business performance. Each variable is measured using specific indicators, with business performance assessed through market share, competitive position, sales growth, customer satisfaction, and profitability (Beyene, 2015).

The digital platform is measured with two dimensions digital platform integration and digital platform reconfiguration—covering aspects like system connectivity, adaptability, and ease of use (Jiang et al., 2023). The product market strategy involves three dimensions differentiation, cost focus, and product-market scope to evaluate how firms position themselves in the market and manage product development and costs (Vorhies et al., 2009). The value co-creation variable is measured through indicators such as promotional innovativeness and proactive engagement

between partners (Ghali et al., 2025). Finally, marketing capability is assessed based on marketing research, strategy, and execution, emphasizing a firm's ability to adapt and engage with customers (Fordian & Ramadiawati, 2020).

The study will use probability sampling to select participants. The sample size is determined using Slovin's formula, which calculates an appropriate sample size based on the total population and a margin of error. The sample size for this study is calculated to be 82 respondents, with the final sample distributed across the eight construction companies according to their respective populations. A non-probability sampling technique, specifically purposive sampling, will be used to select respondents based on specific criteria such as their roles and experience within the company. This approach ensures that the sample reflects the key decision-makers and those with relevant knowledge to answer the research questions.

To collect data, a questionnaire will be distributed, consisting of closed and open-ended questions based on the indicators for each variable. The questionnaires will be distributed both online via digital platforms (e.g., Google Forms) and offline, depending on the respondent's preference. This method allows for easy data collection and accessibility for respondents. The data will be analyzed using descriptive statistics to calculate the mean responses for each variable and Structural Equation Modeling (SEM) using the Smart PLS software. The SEM method will be used to test the relationships between the variables, with decisions on hypothesis support being based on p-value thresholds. Specifically, if the p-value is less than or equal to 0.05, the null hypothesis will be rejected, supporting the alternative hypothesis. If the p-value is greater than 0.05, the null hypothesis will be supported.

In conclusion, this research methodology incorporates a robust design combining quantitative data collection, hypothesis testing, and advanced statistical analysis. The results will provide valuable insights into the factors influencing business performance in the construction industry, specifically focusing on the role of digital platforms in shaping strategic decisions and driving performance improvements. The findings will contribute to understanding how construction companies can leverage digital technology, marketing capabilities, and strategic product-market approaches to gain a competitive edge in an increasingly digital and competitive industry.

The data processing results using Smart PLS 4 are as follows:

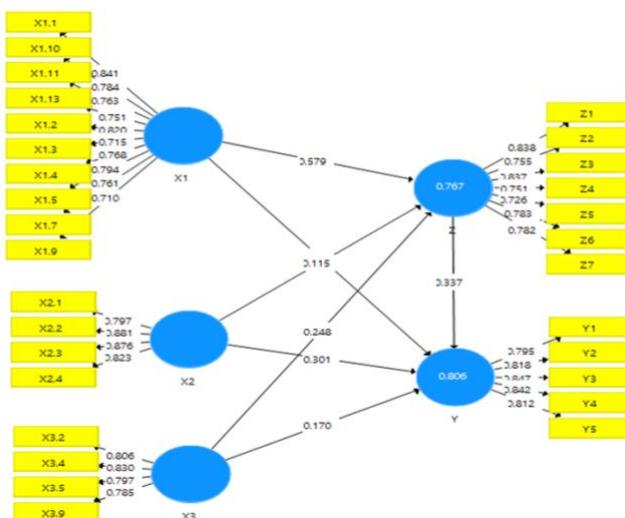


Figure 2. Algorithm Results After Elimination

The PLS-SEM results show that the latent constructs are measured with valid and reliable indicators many of the indicators have outer loadings above 0.70, indicating that these indicators strongly "load" the tested latent constructs. Furthermore, the results of the convergent validity test (outer loading) will be analyzed in detail to illustrate the data validity for the indicators of each variable being studied.

RESULTS AND DISCUSSION

Findings

Descriptive Analysis

Descriptive analysis in this study aims to illustrate the characteristics of the data related to business performance in state-owned construction companies (BUMN). This analysis provides insights into the usage of digital platforms and the perceptions of respondents regarding the implementation of product market strategy, value co-creation, and marketing capability in supporting sustainable business performance. The method employs statistical measures such as the mean, standard deviation, and data distribution to understand patterns in the respondents' data.

Descriptive Statistics of Variables

Business Performance

The descriptive analysis of business performance indicates that the mean values for all indicators range from 3.50 to 3.63. The highest average score was found for the indicator of market share increase, with a mean of 3.63, showing that the company has successfully expanded its market reach in the past three years. Additionally, the customer satisfaction indicator scored a mean of 3.61, reflecting the company's improved ability to meet customer needs and resolve issues during construction projects.

Although sales and profits increased with a mean of 3.50, the company experienced a temporary downturn during 2020-2022 due to the COVID-19 pandemic, which led to cash flow deficits as many construction projects were halted due to the implementation of large-scale social restrictions (PSBB). Overall, the results suggest that the construction companies studied have experienced improved business performance despite challenges during the global crisis.

Digital Platform

The descriptive analysis of the digital platform variable shows that the mean values for all indicators related to digital platform integration and reconfiguration range from 3.66 to 3.84. The highest mean was found for the indicator "The digital platform provides relevant operational information," with a mean of 3.83, indicating that the platform provides essential data to support business management effectively. Moreover, the real-time information provision scored 3.81, emphasizing the importance of fast access to information for decision-making. The integration of the digital platform with existing IT systems scored a mean of 3.71, suggesting that the platform facilitates data access and enhances operational efficiency. Furthermore, the flexibility of the

platform to adapt and be developed according to business needs was also highly rated, with a mean of 3.84. These results highlight the positive perceptions of respondents regarding the effectiveness of digital platforms in supporting business operations.

Product Market Strategy

The Product Market Strategy variable achieved a mean of 3.77, indicating that the application of market strategy in the state-owned construction companies is rated positively. The highest mean was found for the indicator "The company always strives to provide services at low costs" (mean

= 3.88), indicating that cost efficiency is a key strategy to maintain competitiveness. On the other hand, the lowest-rated indicator was "The company is always cost-oriented in developing new operational procedures compared to competitors" (mean = 3.75), suggesting that there is room for improvement in cost management within operational procedures. The Cost Focus dimension had the highest average compared to Differentiation and Product Market Scope, with a mean of 3.82. This result shows that cost control plays a dominant role in the effectiveness of the company's market strategy. Overall, the findings indicate that market strategy and product approach in the construction BUMN sector have successfully integrated a digital approach focused on competitive advantage, efficiency, and service expansion.

Value Co-Creation

The Value Co-Creation variable achieved a mean of 3.89, indicating that the company has successfully implemented promotional innovations that benefit both vendors and business partners. The highest mean was found for the indicator "Promotional innovation is highly recommended by vendors and business partners" (mean = 3.98), which reflects a high level of collaboration and satisfaction among external stakeholders regarding the company's digital platform. On the other hand, the lowest-rated indicator was "Promotional innovation is highly suitable for improving coordination and communication" (mean = 3.80), suggesting that there is still room for improvement in communication across stakeholders.

Overall, the results reinforce the idea that digital platform implementation not only improves internal efficiency but also facilitates value co-creation between the company and external parties, such as vendors, subcontractors, and other project partners, ultimately enhancing collaborative performance in the construction industry.

Marketing Capability

The Marketing Capability variable achieved a mean of 3.80, indicating that the construction companies have effectively implemented marketing functions. The highest mean was found for the indicator "The company is effective in identifying similarities between its products and similar products from competitors" (mean = 3.89), which highlights the company's ability to leverage digital technology for market intelligence and strategic decision-making. Meanwhile, the lowest-rated indicator was "The company effectively forecasts profits for each contract project" (mean = 3.71), suggesting that financial analytics and project forecasting need to be strengthened. These results suggest that marketing capability has been significantly enhanced through the use of digital platforms, particularly in terms of monitoring trends, segmenting customers, and strategic promotion.

Hypothesis Testing

Hypothesis testing was conducted to evaluate the direct and indirect effects between independent and dependent variables. Based on the results of hypothesis testing, several relationships between variables were found to have significant effects. For example, Hypothesis H1, which posited that product market strategy positively affects digital platform adoption, was supported with a p-value of 0.000. This indicates that companies with a strong and appropriate product market strategy are more likely to develop or adopt digital platforms that facilitate digital transformation.

However, Hypothesis H2, which tested the effect of value co-creation on digital platform adoption, was not supported, as the p-value was 0.063, which is greater than the 0.05 threshold. In contrast, Hypothesis H3, which tested the effect of marketing capability on digital platform

adoption, was supported with a p-value of 0.002, indicating that strong marketing capabilities significantly contribute to the adoption and development of digital platforms.

Direct and Indirect Effects

Regarding the indirect effects, Hypothesis H8, which examined the effect of product market strategy on business performance through digital platform adoption, was supported with a p-value of 0.002. This finding suggests that improving product market strategy enhances digital platform adoption, which in turn improves business performance. On the other hand, Hypothesis H9, which tested the indirect effect of value co-creation on business performance through digital platform adoption, was not supported with a p-value of 0.135. Lastly, Hypothesis H10, which posited that marketing capabilities positively affect business performance through digital platform adoption, was supported with a p-value of 0.014. This result indicates that increasing marketing capabilities contributes to better business performance by enhancing digital platform adoption.

In summary, the research findings provide robust evidence that product market strategy, marketing capability, and digital platform adoption significantly contribute to improved business performance in state-owned construction companies. The results underscore the importance of digital platforms in supporting business strategies and enhancing overall performance.

Discussion

Discussion of Research Results

The Impact of Product Market Strategy on Digital Platform

The path coefficient of $\beta = 0.579$ with a p-value of 0.000 (< 0.05) in testing H1 indicates that the sharper the product-market strategy implemented by the organization, the higher the level of arrangement and utilization of digital platforms at a 95% confidence level. This finding aligns with the Resource-Based/Resource-Advantage theory, which emphasizes that a strategy can only be executed if orchestrated through organizational capabilities and systems, including digital architecture as the enacting infrastructure of market-product choices (Vorhies et al., 2009). Mechanistically, a refined product-market strategy drives digitalization in core processes—from lead/bid management to procurement and handover—pushing the organization to enhance the platform's ability to integrate data, orchestrate workflows, and foster cross-functional collaboration. The strategic choices at the upstream activate the need for platform-based capabilities that facilitate real-time connections with customers, partners, and internal units, thereby increasing platform use as co-creation practices and innovations deepen (Jiang, Yang, & Gai, 2023).

This is also supported by Hsiao's (2023) research, which explains that the integration of strategic resources and digital technology acts as a link between market-product strategy and the formation of digital capabilities in organizations. The study emphasizes that a business strategy only produces optimal results when implemented through digital systems and technologies that can reconstruct the company's core processes. The results indicate that companies with a stronger market-product orientation are more likely to develop digital platforms as a supporting infrastructure for executing strategies and enhancing competitiveness in the digital transformation era.

The Impact of Value Co-Creation on Digital Platform

In testing H2, with a p-value of 0.063 (> 0.05), value co-creation was found to have no significant effect on the digital platform at a 95% confidence level. This non-significant effect suggests that H2 is not supported. Literature on digital transformation and platform usage shows

that while value co-creation holds theoretical promise, it does not always translate into improved business performance or digital platform success.

Indriyani et al. (2024) found that in small-medium enterprises (SMEs) using social media as a digital platform, value co-creation and work productivity did not lead to improved marketing performance. This highlights that the presence of co-creation in a digital platform is not sufficient; other factors such as platform quality, marketing strategy, and internal capabilities also play a role in determining whether co-creation can effectively enhance performance.

The Impact of Marketing Capabilities on Digital Platform

The path coefficient of $\beta = 0.248$ with a p-value of 0.002 (< 0.05) in testing H3 shows that the higher the marketing capabilities an organization has—such as market sensing, customer linking, offering development, and channel management—the more likely it is to utilize digital platforms effectively at a 95% confidence level. This positive effect aligns with the Resource-Based View (RBV), which stresses that competitive advantage is determined not only by resource ownership but also by the organization's ability to integrate and orchestrate those resources in marketing practices (Vorhies & Morgan, 2005).

This finding can be explained by the fact that established marketing capabilities require digital systems capable of supporting the rapid collection of information, market analytics, and cross-functional integration. The stronger the organization's ability to understand the market and respond to customer needs, the higher the intensity of using digital platforms as coordination, data management, and internal-external communication tools. Empirical research confirms that integrating marketing capabilities with digital technology adoption creates dynamic capabilities that allow companies to adapt better to complex environments (Wang, Hu, & Hu, 2013).

The Impact of Product Market Strategy on Business Performance

In testing H4, the path coefficient of $\beta = 0.181$ with a p-value of 0.022 (< 0.05) shows that the sharper the product-market strategy implemented by the company, the better the business performance achieved. This finding is consistent with the Resource-Based View (RBV), which emphasizes that a precise market-product strategy enables an organization to direct its resources efficiently towards the most potential segments, resulting in value creation and financial performance (Abdallah & Wafaa, 2018). Mechanistically, a clear product-market strategy influences how organizations design their value propositions and structure their operations. When strategically positioned, companies are motivated to build efficient value chains, strengthen customer loyalty, and leverage technology and marketing capabilities for competitive advantage.

The Impact of Value Co-Creation on Business Performance

The path coefficient of 0.301 with a p-value of 0.000 (< 0.05) in testing H5 indicates that increasing respondents' perception of value co-creation will lead to significant improvements in business performance at a 95% confidence level. This supports H5 and reaffirms that collaboration between companies and customers through value co-creation has a tangible impact on business performance, both in financial and non-financial dimensions.

This finding is consistent with service-dominant logic, which emphasizes that value is not created unilaterally by companies but through dynamic interactions with customers and partners. Value co-creation strengthens consumer engagement, improves satisfaction, and generates long-term loyalty, ultimately driving sustainable competitive advantage.

The Impact of Marketing Capabilities on Business Performance

The path coefficient of $\beta = 0.170$ with a p-value of 0.028 (< 0.05) in testing H6 confirms that the higher the organization's ability to build and manage marketing capabilities, the better the business performance achieved. This aligns with the literature, which states that marketing capabilities are a key source of sustainable competitive advantage in the Resource-Based View (RBV). Duah et al. (2024) strengthened this view by demonstrating that marketing capabilities significantly contribute to improving company performance, both directly and indirectly through the organization's ability to orchestrate resources.

The Impact of Digital Platform on Business Performance

The path coefficient of 0.337 with a p-value of 0.001 (< 0.05) indicates that increased utilization of digital platforms leads to improved business performance. The significant result at a 95% confidence level suggests that digital platforms positively and significantly affect business performance. Theoretically, this positive relationship can be understood in the context of Resource-Based View (RBV) and Dynamic Capabilities Theory. Digital platforms are seen as strategic enablers that expand the organization's ability to integrate, reconfigure, and mobilize internal and external resources, thereby enabling faster information flow, reducing transaction costs, and creating more adaptive work systems.

The Mediating Role of Digital Platform in the Effect of Product Market Strategy on Business Performance

The indirect effect coefficient of 0.195 with a p-value of 0.002 (< 0.05) indicates that the digital platform significantly mediates the effect of product market strategy on business performance. This suggests that a good product-market strategy drives the utilization of digital platforms, which in turn enhances business performance. The digital platform acts as a mediator, enabling the strategic choices of the market-product to be executed in measurable and connected operational processes. The Mediating Role of Digital Platform in the Effect of Value Co-Creation on Business Performance

The p-value of 0.135 (> 0.05) indicates that digital platforms do not significantly mediate the effect of value co-creation on business performance. Despite the potential for co-creation to improve business performance through collaboration with customers or stakeholders in a digital platform, the findings suggest that other factors, such as internal capabilities or digital platform readiness, may play a more significant role.

The Mediating Role of Digital Platform in the Effect of Marketing Capability on Business Performance

The indirect effect coefficient of 0.038 with a p-value of 0.014 (< 0.05) confirms that digital platforms partially mediate the effect of marketing capability on business performance. This finding emphasizes that the effectiveness of marketing capabilities in improving business performance depends on the organization's ability to adopt and optimize digital platforms.

CONCLUSION

This research shows that all three independent variables positively impact business performance, with value co-creation having the most significant effect. The study also found that digital platforms mediate the relationship between product market strategy and marketing capabilities on business performance but do not mediate the relationship between value co-creation and business performance. Specifically, the findings are:

Product-market strategy has a positive impact on the digital platform, emphasizing that a refined strategy drives the intensification of digital platform utilization. Value co-creation does not significantly affect the digital platform, indicating that digital platform practices require mutual value creation to enhance cross-actor interactions.

Marketing capability positively impacts digital platforms, making it a critical foundation for utilizing digital technologies. Product-market strategy has a positive effect on business performance, highlighting that a well-executed strategy can enhance business outcomes.

Value co-creation positively affects business performance, with collaboration between customers and partners having a tangible impact on organizational performance. Marketing capability also positively impacts business performance, reinforcing that competitive advantage in marketing drives business success. Digital platforms positively affect business performance, confirming that digitalization of core processes contributes directly to business outcomes. Digital platforms do not mediate the impact of product-market strategy on business performance, suggesting that optimal business performance is achieved when a product-market strategy is supported by digital platforms.

Digital platforms mediate the impact of value co-creation on business performance, meaning that co-creation is more effective when supported by reliable digital systems. Digital platforms mediate the impact of marketing capabilities on business performance, suggesting that strong marketing capabilities are more effective in improving performance when supported by digital technology.

Implications

Theoretical Implications

This study contributes to enriching the literature on strategic management, digital transformation, and service-dominant logic. The findings support the Resource-Based View (RBV) theory, which asserts that sustainable competitive advantage is achieved through a combination of strategic resources and dynamic capabilities, including digital capabilities. The integration of product-market strategy, value co-creation, and marketing capabilities, mediated by digital platforms, shows that digital platforms are not merely operational tools but strategic resources that add value and enhance organizational adaptability to market changes. Additionally, this research expands the application of Service-Dominant Logic in the construction industry, showing that value co-creation between companies and their partners (vendors, customers, and other stakeholders) requires digital platforms to support information exchange and innovation. This can serve as an empirical reference for developing a new conceptual model for digital-enabled co-creation frameworks in state-owned enterprises (BUMN) and large-scale project sectors.

Practical Implications

From a practical perspective, this research offers guidance for state-owned enterprises (BUMN) in the construction sector to strengthen their digital transformation strategies. First, companies should ensure that their product-market strategies are based on digital analytics and customer data, ensuring that market expansion and product innovation are targeted effectively. Second, companies are advised to foster a culture of value co-creation with strategic partners, vendors, and customers through digital platforms that support open collaboration and transparency.

Third, enhancing marketing capabilities should focus on using digital technology to read market trends, manage brand image, and improve customer communication. Fourth, investments in digital platforms should be directed not only at infrastructure technology but also at developing cross-divisional integrations that enable real-time and measurable business processes. With these

steps, BUMN construction companies can strengthen their competitive position while enhancing operational efficiency sustainably.

Managerial Implications

For construction companies implementing product market strategies, such as service diversification, innovation, or market penetration, a clear strategic foundation is necessary to enter competitive construction markets. However, to achieve optimal business performance, these strategies must be executed through digital platforms that support modern and efficient project management.

Similarly, value co-creation—collaboration between companies, vendors, partners, and other stakeholders—can become a source of competitive advantage when facilitated by digital platforms. Digital platforms enable real-time coordination, project information integration, and transparency among involved parties, which enhances project execution efficiency, reduces communication errors, and accelerates decision-making, leading to improved business performance.

Marketing capability, when combined with digital platforms, enhances the company's outreach, client response, and promotional effectiveness. Digital platforms allow for dynamic, data-driven, and digital communication-based marketing, enabling construction companies to reach more potential clients and tailor services to market needs, resulting in increased sales, market expansion, and stronger competitive positions.

Policy Implications

From a policy perspective, this research provides recommendations for the government and BUMN authorities to formulate regulations and programs that support the acceleration of digital transformation in the construction sector. The government can strengthen incentive policies for BUMNs that successfully integrate digital platforms into the national project value chain, including funding for digital research and collaboration with the private sector.

Additionally, digital interoperability standards between BUMNs should be developed so that project information systems, vendor management, and e-procurement can function seamlessly. Such policies will accelerate the establishment of an efficient, transparent, and collaborative digital ecosystem in the national construction industry.

Limitations

This study has the following limitations:

It did not consider moderating factors such as company size, project types, and market conditions, which may influence the relationships between variables. The sample focusing only on state-owned companies limits the generalizability of the findings to other construction firms with different scales and characteristics. The measurement of variables primarily using respondent perceptions may introduce bias and may not reflect objective performance. The quantitative approach used does not fully explore the implementation of value co-creation and the use of digital platforms in practice.

Recommendations for Future Research

Exploring Moderating Factors/Specific Contexts: Future research could consider moderating variables such as company size, project type (infrastructure vs. commercial vs. residential), or regional market conditions to examine if the effects of market strategy, marketing

capability, or co-creation on digital platforms and business performance vary under different conditions.

Expanding the Sample to Various Types of Companies: To make the findings more generalizable, future research could include private construction companies, small-medium enterprises (SMEs), or subcontractors. This would help determine whether the model of variable relationships still holds in companies with different scales and resources.

Measuring Broader and More Objective Outcomes: Future research could use actual performance data—such as return on assets, profit margins, project completion rates, and productivity—to validate the actual impact of digital platforms and strategies/capabilities. This approach reduces perception bias and strengthens external validity.

Qualitative or Mixed Methods to Explore Co-Creation and Platform Implementation: To gain deeper insights into how co-creation and digital platform development actually happen in practice, qualitative methods (e.g., interviews, case studies) or mixed methods could be highly useful. These approaches would help explain the “how and why” of effects, rather than just “whether” the effects occur.

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