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Product Innovation Agility and Marketing Performance: The Role of Adaptive Capability and Customer Orientation

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Abstract
Customer orientation drives product innovation agility through an understanding of customer needs, competitor focus, and functional coordination, which in turn enhances marketing performance, such as sales growth and market share. Product innovation agility then mediates this relationship by indirectly improving marketing performance, as rapid innovation generates competitive advantages such as increased customer satisfaction and sales. This article aims to analyze the influence of adaptive capability and customer orientation on marketing performance, as well as the mediating role of product innovation agility in the Wondr app. A quantitative approach was used with a sample of 3,904 Wondr app users. Data were collected via a questionnaire and analyzed using SmartPLS. The results confirm that successful marketing performance is highly dependent on a company's ability to rapidly innovate products as an adaptive response to changes in the market environment. Adaptive capability has the key and greatest influence on improving marketing performance when supported by strong product innovation agility.

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INTRODUCTION

Advances in information technology today can help the banking industry run its business successfully. As bank customers, they can carry out various financial transactions daily through an easy-to-use internet network. This includes transfers and payments for utilities such as electricity and water, insurance, educational institutions, and others, as well as purchasing cell phone credit. E-banking, or electronic banking, is an advancement in information systems that enables these activities (Nafisah et al., 2023). Mobile banking services are considered the fastest-growing compared to other types of electronic banking services. This is due to the fact that advancements in mobile banking services have made it possible to meet the needs of modern society, which is highly dependent on mobility. Mobile banking provides convenient banking services at the touch of a button.

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Bank Negara Indonesia, one of the banks under the umbrella of state-owned enterprises, launched the "wondr by BNI" mobile banking app in July 2024. BNI previously had its own mobile banking app, but "wondr by BNI" was introduced with the latest features, particularly the "3 Dimensions of Finance" (Transactions, Insights, and Growth), which help customers manage their personal finances to meet their individual financial goals. As of April 2025, the "Wondr by BNI" app had reached over 5 million downloads on the Play Store and over 76,000 downloads on the App Store. The "Wondr by BNI" app embodies BNI's commitment to mobile banking innovation as part of its digital transformation strategy, characterized by an adaptive approach to customer habits, thereby demonstrating the organization's adaptive capability to proactively respond to market changes.

The Wondr app by BNI is also tangible proof that BNI, as a company, embodies a customer-oriented corporate culture through the development of features based on in-depth research into customer expectations and needs. BNI conducted extensive research and direct validation with its target customers to ensure that Wondr meets the needs for fast transactions, intuitive financial insights, and personal financial growth all in line with the principle of customer-focused market orientation. This approach yields three key dimensions: Insights for monitoring income and expenses, Transactions for easy payments such as QRIS Tap, and Growth for investments tailored to individual profiles, thereby enhancing the user experience in a targeted manner. Product innovation agility is an organization's ability to innovate products efficiently in response to environmental changes, measured by the flexibility of customer-needs-based product development. BNI's Wondr demonstrates this through its "Growth" feature which personalizes promotions based on customer profiles and its "Insights" feature for automated financial summaries, translating adaptive capabilities into radical innovations that are rapidly launched. An intuitive testing process (where customers use the app without instructions) ensures this agility, resulting in 2 million downloads and a 200% increase in transactions. Previous literature emphasizes the importance of a customer-oriented corporate culture and adaptive capability in influencing marketing performance.

This research gap is evident from several controversies surrounding previous research findings. Customer orientation and adaptive capability can improve marketing performance (Nufuz & Graciafernandy, 2024), while a study Fatonah et al., (2021) emphasizes that some other research findings do not show a significant effect (Amin et al., 2022). This inconsistency opens the door for further analysis using product innovation agility as a mediator. The second research gap involves findings where adaptive capability has a significant effect on marketing performance (Reimann et al., 2021), whereas another study Wiwoho & Riptiono, (2025) found that adaptive capability has no effect on marketing performance.

Although numerous international studies have extensively examined the importance of customer orientation and adaptive capability on marketing performance, similar studies in the context of banking product innovation in developing regions remain relatively limited. Thus, this research is important for filling a gap in the literature while also providing practical insights into product innovation agility for companies that rely on IT applications as the foundation of their services. Based on the above, this study aims to: analyze the effect of customer orientation on marketing performance; analyze the effect of adaptive capability on marketing performance; and analyze the mediating role of product innovation agility in the relationship between customer orientation and adaptive capability on marketing performance.

According to Lee et al., (2022), customer orientation is understood as the desire or tendency of employees to meet customer needs within the scope of their job responsibilities. This orientation reflects the company's focus on customers and encompasses a mindset that places customer interests at the center of decision-making. Meanwhile, according to (Saputra & Hendro, 2024), customer orientation can be observed through various indicators, such as how a company develops products based on information and feedback from customers, provides good service to consumers, and creates value that is relevant to customers. This orientation is also reflected in a company's efforts to differentiate its products, monitor competitors' conditions and movements, and commit to producing the best products. Ultimately, all these elements boil down to a company's ability to maintain a strong focus on customer needs, preferences, and satisfaction.

The Adaptive Capability theory was first proposed (Reimann et al., 2022); dynamic capabilities refer to an organization's ability to create, reshape, and assimilate knowledge and skills in order to remain strong in a rapidly changing competitive environment. Adaptive Capability is a process that occurs within an organization; generally, it consists of routine activities that have become ingrained in the company over time and work to reconfigure the company's resource base by combining existing resources with new ones (Kuo, 2024). In its development, Adaptive Capability encompasses several key aspects, such as an organization's ability to adapt structurally and operationally, a company's ability to adapt to and leverage technology, and the ability to respond to market dynamics while remaining focused on customer needs and changing behaviors.

Holbeche Puriwat & Hoonsopon, (2022) defines agility as an organization's ability to respond to and adapt quickly to upcoming changes. Mulyana et al., (2020) add that agility is the dynamic ability to configure and reconfigure selected business processes from various alternatives, enabling companies to accommodate evolving needs and opportunities. For organizations seeking to grow and survive, the speed of innovation is a critical factor, particularly in product development. Agility is also viewed as an organization's capacity to direct human resources effectively and efficiently to create and sustain value amid a rapidly changing environment. In terms of measurement, agility is reflected in a manufacturer's ability to respond to market changes, enter the market with new products faster than competitors, maintain a network that supports the new product launch process, meet customer demand as expected, and develop a production network that enables the mass production of new products.

Marketing performance Lee et al., (2022) refers to the results both in terms of quantity and quality achieved by an individual in carrying out their assigned tasks and responsibilities. Marketing performance is also a key factor in assessing the extent to which a company's implemented strategies are capable of delivering effective results (Muis et al., 2024). In line with this, Deku et al., (2024) explain that marketing performance is a concept used to measure a company's success in marketing its products.

In the context of marketing, several commonly used dimensions include customer satisfaction, sales volume, and customer loyalty. Customer satisfaction refers to the feelings of pleasure or disappointment that arise after comparing the performance of a product or service with their expectations. Sales volume describes the quantitative achievement of the number of products successfully sold. Meanwhile, customer loyalty reflects a customer's commitment to continue using a company's products or services; loyal customers make a significant contribution to the company, whereas losing loyal customers can have a detrimental impact.

To improve marketing performance, management must first be able to build good relationships with its customers. These relationships must be long-term and mutually beneficial. One way to foster such relationships is by providing banking services that are accessible online 24 hours a day, easy to use, and secure (Cataltepe et al., 2023).

METHODS

This study employs an explanatory research design using a quantitative approach (Abduldayev et al., 2026; Anidar et al., 2026; Engkizar et al., 2023, 2025, 2026; Hamid et al., 2026; Mulyana et al., 2020). According to Hair & Alamer, (2022), explanatory research is a research method that aims to explain the relationships among the variables under study and the effects of one variable on another. The population in this study consists of customers using the Wondr by BNI app all customers of PT Bank Negara Indonesia (Persero) Tbk's Ende Branch, totaling 3,904 individuals, as of March 2024. The sampling technique used in this study is simple random sampling. The sample size was determined using the Slovin formula, resulting in a sample of 100 respondents. In this study, the data collection method used was a questionnaire. Data processing in this study utilized the Smart PLS SEM (Partial Least Squares-Structural Equation Modeling) software. The statistical analysis of the data employed the PLS SEM method. The following are the PLS analysis techniques: i) outer model analysis, ii) inner model analysis, and iii) hypothesis testing.

RESULT AND DISCUSSION

Outer Model Test, Validity Test, and Reliability Test

The results of the outer model test, validity test, and reliability test are shown in table 1 below:

Table 1. Outer Model Test, Validity Test, and Reliability Test

Construct	Outer loading	Cronbach's Alpha	Composite Reliability	AVE
Market Performace	0.836	0.801	0.845	0.762
Produk Inovative agility	0.876	0.852	0.879	0.798
Customer Orientation	0.819	0.793	0.823	0.728
Adaptive Capability	0.793	0.745	0.802	0.701

The Cronbach's Alpha test results in table 1 indicate that the overall construct is reliable and exhibits a high level of consistency, as evidenced by a Composite Reliability value >0.6, a Cronbach's Alpha value >0.6, and an Average Variance Extracted (AVE) value >0.5. These results indicate that the data are suitable for hypothesis testing.

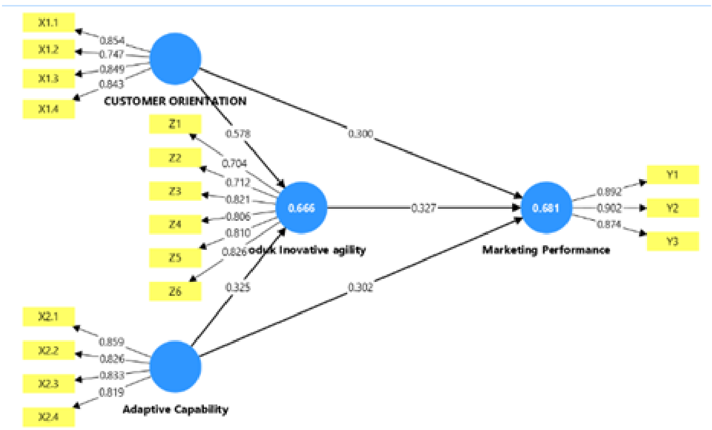

Fig 1. Outer Loading

HTMT, R^2, f, and Q^2 Tests

Table 2. HTMT, R^2, f, and Q^2 Tests

Criteria	Indicator	Result	Interpretation
Discriminant Validity (HTMT)	AC–CO = 0.699; AC–MP = 0.807; AC–PIA = 0.747; CO–MP = 0.853; CO–PIA = 0.895; MP–PIA = 0.865	All < 0.90	Discriminant validity is met; some pairs (CO–PIA, MP–PIA) approach 0.90 → indicating strong conceptual relatedness.
Collinearity (VIF)	Range 1.565 – 2.990	< 3,3	No multicollinearity issues; independent predictors contribute adequately.
Explanatory Power (R^2, Adjusted R^2)	Marketing Performance: 0.681 (Adj. 0.671); Product Innovative Agility: 0.666 (Adj. 0.659)	Moderate–substantial	The model explains 66–68% of the variance in endogenous constructs.
Effect Size (f^2)	CO → MP = 0.110 (small); AC → MP = 0.152 (medium)	0.02–0.15 (small–medium)	AC contributes more strongly than CO in enhancing Marketing Performance.
Predictive Relevance (Q^2predict, RMSE, MAE)	MP: Q^2 = 0.608; RMSE = 0.636; MAE = 0.466; PIA: Q^2 = 0.638; RMSE = 0.613; MAE = 0.487	$Q^2 > 0$; low error	The model demonstrates strong predictive relevance and good prediction accuracy.

The test results show that all HTMT values are below 0.90, indicating that discriminant validity is met. The VIF values (1.565–2.990) confirm that there are no multicollinearity issues, while the R^2 values for Marketing Performance (0.681) and Product Innovative Agility (0.666) indicate moderate to substantial explanatory power of the model. The f^2 analysis indicates a moderate effect of Adaptive Capability (0.152) and a small effect of Customer Orientation (0.110) on Marketing Performance. Additionally, the high Q^2predict values (0.608–0.638), along with low RMSE and MAE, confirm that the model has good predictive relevance and accuracy.

Hypothesis Testing

The results of the hypothesis testing are presented in table 3 below:

Table 3. Hypothesis Test Results

	T-Statistic	P-Value
Customer Orientation → Market Performance	3.421	0.001
Adaptive Capability → Market Performance	3.162	0.002
Customer Orientation → Product Innovative Agility → Market Performance	4.298	0.000
Adaptive Capability → Product Innovative Agility → Market Performance	4.329	0.000

H1: The Effect of Customer Orientation on Marketing Performance

Table 2 shows that the T-statistic for the relationship between customer orientation and marketing performance is 3.421, which is greater than the critical value, and the P-value is 0.001. This indicates that customer orientation has a positive and significant effect on marketing performance; therefore, H1 is accepted.

H2: The Effect of Adaptive Capability on Marketing Performance.

Table 2 shows that the relationship between adaptive capability and marketing performance has a T-statistic of 3.162, which is greater than the critical T-value, and a P-value of 0.002, indicating that adaptive capability has a positive and significant effect on marketing performance; therefore, H2 is accepted.

H3: The mediating role of Product Innovation Agility in the effect of Customer Orientation on marketing performance.

Table 2 shows that the mediating role of Product Innovation Agility in the effect of Customer Orientation on Marketing Performance has a T-statistic value of 4.298 > the critical T-value and a P-value of 0.000, indicating that Product Innovation Agility mediates the relationship between Customer Orientation and Marketing Performance; therefore, H3 is accepted.

H4: The mediating role of Product Innovation Agility in the effect of Adaptive Capability on Marketing Performance.

Table 2 shows that the mediating role of Product Innovation Agility in the effect of Adaptive Capability on Marketing Performance has a T-statistic value of 4.329, which is greater than the critical T-value, and a P-value of 0.000. This indicates that Product Innovation Agility mediates the relationship between Adaptive Capability and Marketing Performance; therefore, H3 is accepted.

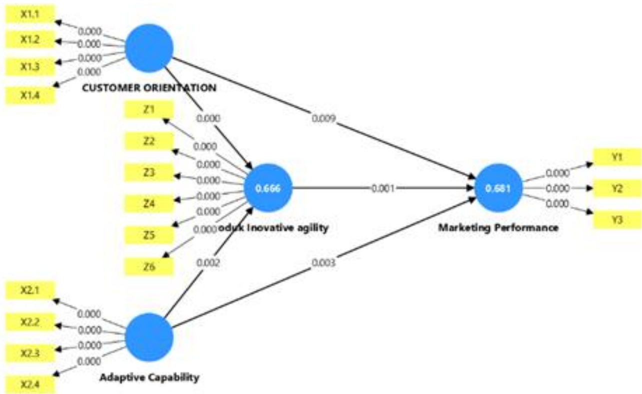

Fig 2. Path Coefficient Test

Customer orientation has a significant impact on marketing performance at the BNI Ende Branch. By adopting an approach focused on customer needs, preferences, and expectations, the BNI Ende Branch has been able to build stronger and more sustainable relationships with its customers. This strategy not only increases customer satisfaction and loyalty but also has a positive impact on the achievement of marketing targets, such as an increase in the number of new customers, an increase in transaction volume, and growth in the use of financial products. In addition, customer orientation encourages employees to be more responsive and proactive in providing services, which ultimately strengthens BNI's image and competitiveness in the Ende region.

Adaptive capability plays a crucial role in improving marketing performance at the BNI Ende Branch. This adaptive capability reflects the extent to which the bank is able to respond to market changes, technological trends, and the ever-evolving needs of customers. With a high level of adaptive capability, BNI's Ende Branch can flexibly adjust its marketing strategies such as adopting the latest digital services, tailoring products to local needs, and improving service efficiency. This enables the bank to remain relevant and competitive amid the dynamics of the banking industry, which ultimately has a positive impact on marketing performance in terms of customer acquisition, retention, and increased transaction volume.

Furthermore, product innovation agility plays a crucial mediating role in strengthening the relationship between customer orientation and marketing performance at Bank BNI's Ende Branch. Customer orientation drives the bank to gain a deep understanding of customers' needs and desires; however, for this understanding to have a tangible impact on marketing performance, the bank must be able to translate it into agile and relevant product innovations. This is where product innovation agility comes into play it is the bank's ability to create and adapt products and services quickly and innovatively in line with the dynamics of market needs. When the BNI Ende Branch is able to respond to customer preferences with innovative and timely financial solutions, this not only increases customer satisfaction and loyalty but also drives growth in new customer acquisition, product usage, and the achievement of overall marketing targets. Thus, product innovation agility serves as a strategic link that optimizes the impact of customer orientation on marketing performance.

Product innovation agility plays a crucial mediating role in bridging the relationship between adaptive capability and marketing performance at Bank BNI's Ende Branch. Adaptive capability enables the bank to quickly and accurately recognize and respond to changes in the market environment, technology, and customer behavior. However, for this adaptive capability to truly lead to improved marketing performance, the bank must be able to innovatively develop products and services that align with ever-changing market needs. This is where product innovation agility plays a vital role as a mechanism that translates adaptive responses into valuable solutions for customers. When the BNI Ende Branch is able to combine adaptability with speed and precision in product innovation, the bank can create a competitive advantage that drives customer growth, increases loyalty, and leads to more optimal achievement of marketing targets. Thus, product innovation agility significantly strengthens the link between adaptive capability and marketing performance.

CONCLUSION

The findings of this study indicate that customer orientation and adaptive capability have a positive and significant effect on marketing performance. Not only do these two variables exert a strong direct influence, but this study also reveals a new finding: the partial mediating role of product innovation agility in strengthening this relationship. Customer orientation fosters a deeper understanding of users' needs and preferences, while adaptive capability provides organizations with the flexibility to respond to market dynamics. These two factors then flow through product innovation agility, which enables companies to rapidly develop new features and solutions, thereby leading to superior marketing performance.

The implications of these findings are crucial for the development of corporate strategy, particularly for the Wondr by BNI app. It is not enough for a company to simply focus on customers or possess adaptive capabilities; rather, it must ensure that both are integrated through agile product innovation. When a company is able to innovate rapidly in response to changes in customer behavior and market conditions, the impact will be reflected in increased sales, customer loyalty, and sustainable competitive advantage. Thus, this study provides a strategic foundation showing that product innovation agility serves as a crucial bridge that optimizes the influence of customer orientation and adaptive capability on marketing performance.

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