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Technological Knowledge And Market Orientation In New Products Performance: The Role Of Absorptive Capacity

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ABSTRACT

Due to increasing competition in the global market, companies from all industries worldwide are facing constantly changing conditions. Changes drive companies to rebuild their trade models and enhance their products and services in order to maintain competitiveness and ensure survival. The ease of replication by competitors or elsewhere underscores the importance of adapting to change. The analyst distributed self-administered surveys via email to specific sources involved in the development of unused items since October 2023. The methodological design is crucial for this quantitative research, which focuses on a population of manufacturing companies in Batam, Tanggerang, Tangjung Pinang, and other districts. The factual strategies chosen to analyze the theories proposed in this study involve using the Smart PLS and SPSS applications. The findings suggest that: 1) Market Orientation does not affect on New Product Performance. 2) Market Orientation positively influences Absorptive capacity. 3) Technological Knowledge competence positively impacts New Product Performance. 4) Absorptive Capacity has a positive and significant effect on New Product Performance. 5) Technological Knowledge positively affects Absorptive Capability as an intervening variable. Having a positive organizational mindset increases the correlation between Advertising Introduction and New Product performance. When companies have limited ability to benefit from unpredictable market factors and wish to benefit from Market Introduction in New Product Performance activities, they must recognize the unpredictable nature of the current market.

INTRODUCTION

Due to increasing competition in the global market, companies from all industries worldwide are facing constant changes in operating conditions (Cuevas-Vargas et al., 2022). Changes prompt companies to redesign their business models and enhance their products and services. Without these adaptations, businesses risk losing their competitive edge and ultimately facing extinction, as they can be easily replicated by competitors or copied elsewhere (Lin et al., 2020). From a knowledge-based perspective, advancement and absorptive capacity are closely linked and have been analyzed from various perspectives. In theory and practice, they participate in a company's research to quickly adapt to global trade conditions and shifts in its market (Du & Wang, 2022). One of the primary hurdles for businesses in acquiring and utilizing information is their level of development, which is tied to the organization's absorptive capacity. This capacity determines the company's effectiveness in assimilating external information for decision-making (Dogbe et al., 2021). Advancement enables companies to develop new products, processes, and systems needed to respond to market changes, technological shifts, and other forms of organization (Sancho-z amora et al., 2022).

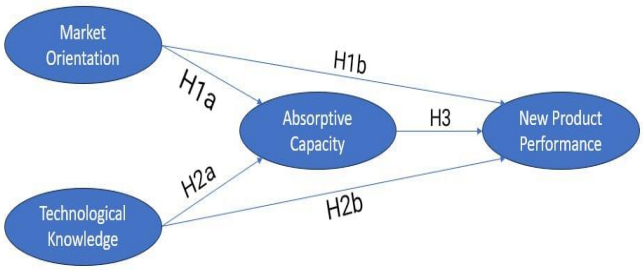
According to Truong & Nguyen, (2023), as manufacturing hubs, enhancing their innovation capabilities has become a focal point in regional economic research and business management. The key to development is found in acquiring, combining, and transforming various information sources and related data. Previous research has examined the flexible outcomes of Absorptive Capacity, specifically information utilization. By aligning the firm's energetic capabilities, leveraging agility, and enhancing growth performance, the influential role of organizational culture should also be considered (Khan et al., 2022).

According to Alraggad & Onizat, (2020) the literature underscores the importance of exploring the drivers of New Product Innovation Performance (NPIP) in the industry. This study examines the effects of Market Orientation (MO) and the development of new information on absorptive capacity (AC) as a mediator mechanical information was provided to production workers to ensure precision in their work and to facilitate timely and efficient production (Lin et al., 2020). In this paper, we present a study on absorptive capacity to identify shared conceptual frameworks and strategies, and emphasize its importance for organizations. Based on this, we propose a method of unloading absorptive capacity by analyzing the specific measurements at the meso-level establishments (Yildiz et al., 2024). In the modern environment of advanced change, computerized enterprise social capital remains important for obtaining external information (Lyu et al., 2022). Subject matter specialists and scholars agree that, with Industry 4.0, businesses will streamline operations and develop new products and services more efficiently. It is crucial to acknowledge that this insurgency is fundamentally reshaping the global economy, and no nation or organization can escape its impact (Truong & Nguyen, 2023). Agreeing with Khan et al. Absorptive capacity is not crucial in Development Execution. Analysts should examine why these two factors are not critical.

LITERATURE REVIEW

Previous literature suggests that new product success can be attributed to various key factors, including competitive environment, internal environment, and new product development process. In the following section, we emphasize Market Orientation and Technological Knowledge as key preliminary factors for New Product Development performance and review previous research findings regarding Market Orientation, Technological Knowledge and New Product Development. The proposal suggests a comprehensive approach to addressing client needs and market perspectives by defining two additional types of Market Orientation: responsive market orientation and proactive market orientation (Zhao et al., 2021).

Figure 1 Research Model



According to Alraggad & Onizat, (2020) companies are established for survival and business growth. Improving New Product Innovation Performance (NPIP) is a key indicator of the company's ability to succeed in the market and thrive in a highly competitive business environment.

Relationship Between Market Orientation And Absorptive Capacity

According to Du & Wang, (2022) Market Orientation is defined as "an organizational culture that focuses on competitors, customers, and inter-functional coordination." This could be linked to companies that aim to share environmental information with their supply chain partners through Showcase Introduction (Lin et al., 2020) Subsequently, advertising can enhance absorptive capacity. The relationship between the two is significant as they involve processes and activities that safeguard valuable information. Therefore, this study posits that advertising introduction will have a significant impact on Absorptive Capacity. Synchronous speculation in Advertise Introduction and Absorptive Capacity can have a positive affect on item innovation and prepare advancement, inquire about conducted within the setting of a company's green development contends that showcase introduction and absorptive capacity must go hand in hand (Wahyono & Hutahayan, 2021). Companies must supply value and meet customer demands in order to survive and maintain growth in the market (Kishore Kumar Gangwani & Manjot Singh Bhatia, 2024). Recent research by Rakthin, (2020) emphasizes the importance of education in the successful introduction of a showcase, aligning closely with the company's display data.

From this research, a hypothesis can be formulated as follows:

- H1a: *Market Orientation* has a positive impact on *Absorptive Capacity*

Relationship Between Market Orientation And New Product Innovation Performance

From this investigation, a theory can be formulated that according to Fakhreddin & Foroudi, (2022) the market orientation has a significant positive impact on the quality of New Product Performance (NPIP). Showcase introduction is a part of organizational culture. Several studies have been conducted to determine the relationship between advancement and its impact (Taghvaee & Talebi, 2023). While marketing strategy and management literature have emphasized the direct impact of a strong corporate market orientation (MO) on new product development performance (Zhao et al., 2021). Analysts suggest that market testing can be a viable strategy for customer-centric ventures to reduce costs associated with new product development and tailor products to the preferences of the target consumers (Adomako et al., 2023). A competitor-focused company can maintain or increase its market share by responding to its competitors' developments (Schulze et al., 2022).

From this research, a hypothesis can be formulated as follows:

- H1b: *Market Orientation* has an influence on *New Product Innovation Performance.*

Relationship Between Technological Knowledge And Absorptive Capacity

According to Cuevas-Vargas et al, (2022), information absorptive capacity is the primary driver of trade development, especially in developing countries. However, there are limited studies focusing on Absorptive Capacity and Technological Knowledge (TK) in the context of small and medium enterprises. It is established that Absorptive Capacity significantly moderates innovation in high-tech manufacturing firms, resulting in a U-shaped curve effect between firms with high and low absorptive capacity (Forés & Fernández-Yáñez, 2023). Other studies show significant benefits when assessing the impact of technology-related skills and competencies on achievement and potential capacity within Technological Knowledge Innovation's technological resources and flexibility. Impact on a critical characteristic of multinational corporations - specifically, the ability to efficiently exchange intricate firm-specific technological knowledge on a global scale (Buckley & Hashai, 2020). Many companies are unaware of the true benefits of data management and technological advancement (Alraggad & Onizat, 2020). Firms in the cluster can benefit from shared development and innovation infrastructure, facilitating the exchange of ideas and information due to their proximity (Rezaei & Kamali, 2022).

From this research, a hypothesis can be formulated as follows:

- H2a: *Technological Knowledge* has a positive influence on *Absorptive Capacity*

Relationship Between Technological Knowledge And New Product Innovation Performance

According to Alraggad & Onizat, (2020), the relationship between these two factors is significant. It can help academics and business leaders in designing information management programs to achieve greater technological advancement in products and processes. Changes in the trade environment are the main driver for companies to compete effectively by creating and introducing new and innovative products at a rapid pace (Rezaei & Kamali, 2022).

According to (Cuevas-Vargas et al., 2022), absorptive capacity is crucial for managing development. In a company, it can increase the speed and frequency of innovation. It has been established that absorptive capacity significantly influences growth in high-tech manufacturing firms. Firms with high absorptive capacity experience a U-shaped curve effect compared to those with low absorptive capacity (Forés & Fernández-Yáñez, 2023). Supervisors assist in planning information administration programs to achieve greater innovative advancement in products and processes, leading to new product implementation through efficient budgetary and marketing strategies (Buckley & Hashai, 2020).

From this research, a hypothesis can be formulated as follows:

- H2b: *Technological Knowledge* has an influence on *New Product Innovation* Performance.

Relationship Between Absorptive Capacity And New Product Innovation Performance

Modern item development execution with absorptive capacity involves examining the impact of two different types of knowledge absorption capacity on innovation development in the manufacturing industry. Absorptive capacity is essential for Modern Product Development. The high-tech manufacturing sector offers a suitable research environment to examine the connection between New Product Performance and the influencing factors (Cuevas-Vargas et al., 2022). Instabilities in information and data streams can lead to negative consequences, such as adversely affecting collaborative efforts and success rates (Girvan & Savage, 2019). The instability in Figure 2 will occur if there is insufficient data handling capability and absorptive capacity, hindering improvement firms from understanding counterparties' commitments and offerings. Absorptive Capacity refers to a company's ability to identify, assimilate, and apply external knowledge (Khan et al., 2022). Based on this reasoning, subsequent studies examined the unanticipated influence of Absorptive Capacity, a significant form of dynamic capability, on the connection between Client Engagement and Unused Product Development Performance (Najafi-

Tavani et al., 2023). Procuring and managing external data is essential for any company. Therefore, AC has garnered increased attention from researchers, particularly following the successful endorsements from those who described it as "the ability to recognize the value of industrial data, assimilate it, and utilize it for business objectives" (Al-Hakimi et al., 2021).

From this research, a hypothesis can be formulated as follows:

- H3 : *Absorptive Capacity* has a positive relationship with *New Product Innovation Performance.*

METHODS

In this study, a survey was conducted that included items related to Absorptive Capacity, Technological Knowledge, Market Orientation, and New Product Innovation Performance. The analyst conducted questionnaires from October 2023 to March 2024 which were self-administered and sent via email to targeted individuals involved in new product Innovation Performance. The research method used is basic and quantitative, focusing on a population of manufacturing companies in Batam, Tanggerang, Tangjung Pinang, and surrounding areas. The survey targeted CEOs, owners, operations managers, production managers, or equivalent positions who are considered most qualified for the study due to their high level of understanding and responsibility for research factors and various business practices in their units. The selection of measurable procedures used to analyze the research theories proposed in this study involves the application of SmartPLS and SPSS (Carrasco-Carvajal et al., 2023).

To test the proposed hypothesis, this study sampled 200 respondents. According to Slovin's formula of 1:10 where the number of research questions is 20 multiplied by 10 (20 x 10), the required sample size for this study was calculated to be 200. The additional respondents from manufacturing companies were included, bringing the total sample size to 220. Members need to be the founder or owner of a company, agree to participate in the survey, and provide deliberate, confidential information (Purwianti, 2021).

RESULTS

The results of the identity description have shown that the research was conducted most of the respondents who have filled out the questionnaire 100% are owners, owners / supervisors of manufacturing companies that researchers collected from Batam, Tangerang and Tanjung Pinang with female gender as much as 52.3% and male 47.7% with a dominant age of 35-50 as much as 43.2% most of whom have taken education up to Bachelor 1 (S1) with a value of 49.1% . From the results that researchers have obtained, that women are more successful in facing obstacles than men to succeed in business, and also most female workers work harder than men. Why are women more successful in running businesses? Female leadership also has a long-term plan, Research shows women are more likely to reinvest business profits to generate steady, profitable growth, whereas men are more likely to seek faster growth, driven by equity investment, and exit more quickly. Women like to observe things, especially with regards to their environment and surroundings.

This has its own benefits as it immediately reminds us of the various business opportunities for women. Because women have a strong mentality, they are able to survive even when their business fails or is on the verge of bankruptcy. They stand strong and make various efforts to keep the company afloat until it finally reaches glorious success. This is part of their hobbies and women like to keep up to date. They love making friends, traveling, and talking about their interests. There, women indirectly network and get more potential connections to build their business. These women don't just hang out and chat, they talk about things that give them a broader perspective.Women can get complicated over details, even small ones (Jatmiko, 2019). The detailed description has explained that, 85.8% of respondents have used overseas

technology before and 80% have used overseas technology to purchase goods 1-5 times with a percentage of 47.3%. Respondent demographic information can be seen in the following table.

Table 1 Respondent Demographics (N=220)

Demographic Information		Total	Percentage (%)
Total Respondents		220	100%
Gender	Male		115 52,3%
	Female		105 47,7%
Work	Owner	220	100%
Age	15-20	2	0,9%
	21-35	99	45%
	35-50	95	43,2%
	>50	24	10,9%
Last education	High School/Vocational School	41	18,6%
	Bachelor (S1)	108	49,1%
	Master (S2)	50	22,7%
Have used Technology abroad before.	Yes	188	85,5%
	No	31	14,2%
Have purchased goods using foreign technology.	Ever	176	80%
	Never	44	20%
Using technology to buy things.	1-5	104	47,3%
	6-10	82	37,3%
	More than 10	34	15,5%

Resource: output PLS-SEM

Consent to Khan et al. PLS-SEM is viewed as a suitable approach for small-scale studies due to its superior control over measurement compared to covariance-based SEM in complex models with small sample sizes. Analysis is performed within the PLS framework through estimation and auxiliary display. For each item, the calculated stacking value must be greater >0.70. Unwavering quality is achieved when Cronbach's Alpha, Composite Reliability (CR) >0.70, and Average Variance Extracted (AVE) <0,05.

Table 2 Loadings, AVE, Composite Reliability, And Convergent Validity

Construct	Code of items	Factoes Loading	CR (α)	AVE	Code of items
MO	MO1	0,995	*0,997 (0,996)*	*0,985*	Yes
	MO2	0,996			
	MO3	0,993			
	MO4	0,989			
	MO5	0,988			
TK	TK1	0,993	*0,997 (0,996)*	*0,984*	Yes
	TK2	0,990			
	TK3	0,994			
	TK4	0,994			
	TK5	0,988			
AC	AC1	0,991	*0,996 (0,995)*	*0,980*	Yes
	AC2	0,987			
	AC3	0,989			
	AC4	0,991			
	AC5	0,990			
NPP	NPP1	0,995	*0,998 (0,997)*	*0,984*	Yes
	NPP2	0,993			
	NPP3	0,999			
	NPP4	0,991			
	NPP5	0,994			

Resource: output Smart PLS (2024)

Table 3 Common Method Bias Harman's Test

Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7,786	38,931	38,931	7,197	35,985	35,985
2	5,009	25,045	63,976			
3	3,580	17,899	81,874			
4	3,316	16,581	98,455			
5	,068	,338	98,794			
6	,043	,213	99,007			
7	,035	,176	99,183			
8	,033	,164	99,348			
9	,027	,135	99,483			
10	,021	,107	99,590			
11	,020	,099	99,690			
12	,017	,084	99,773			
13	,014	,068	99,842			
14	,011	,055	99,897			
15	,009	,043	99,940			
16	,006	,028	99,968			
17	,003	,016	99,984			
18	,002	,010	99,995			
19	,001	,005	99,999			
20	,000	,001	100,000			

Full collinearity was assessed to analyze *Common Method Bias* from a statistical perspective as researchers found that if the value of the full collinearity variance inflation factor is less than 50%, the data is free from CMB concerns. From the results of the data in table 5, the full *collinearity* of all latent constructs, has a result of less than 50, therefore, the results can be declared free from the problem of Common *Method Bias* and there is no threat (Truong & Nguyen, 2023).

Table 4 Analysis Of Discriminant Validity *Fornell-Larcker Criterion*

Construct	AC	MO	NPP	TK
AC	**0,990**			
MO	-0,204	**0,992**		
NPP	-0,203	0,002	**0,994**	
TK	-0,265	0,146	0,294	**0,992**

Notes: The square root of the AVE is shown in bold.
Resource: output Smart PLS (2024)

One approach to assess discriminant validity is by using the Fornell-Larcker model, which involves comparing the square root of Average Variance Extracted (AVE) with the correlations between constructs. The square root of Average Variance Extracted (AVE) should be higher than the correlation between factors to ensure discriminant validity. Merged legitimacy is confirmed by calculating the average variance extracted (AVE) for each factor, which should be >0.50. In the meantime, discriminant validity in table 5 is achieved when the square root value of the AVE is higher than the correlation between all factors, indicating that the construct is more closely linked to its variables than others (Khan et al., 2022).

Table 5 Heterotrait-Monotrait Analysis (HTMT)

	AC	MO	NPP	TK
AC				
MO	0,204			
NPP	0,204	0,009		
TK	0,266	0,146	0,295	

Source: Smart PLS (2024)

In the context of modern research, higher factor loadings can jeopardize the results of the Fornell-Larcker model and impact the discriminant validity of the construct. The HTMT ratio can serve as an alternative measure of discriminant validity. The HTMT ratio could be a significant advancement in the context of PLS-SEM. Monte Carlo simulation results indicate that the HTMT ratio outperforms other discriminant validity measures in terms of accuracy. Table 6 shows that all HTMT ratios are below the threshold of 0.90, indicating discriminant validity (Khan et al., 2022).

Table 6 Cross Loading Analysis

Construct	AC	MO	NPP	TK
AC1	**0,991**	-0,226	-0,215	-0,248
AC2	**0,987**	-0,196	-0,197	-0,259
AC3	**0,989**	-0,222	-0,183	-0,272
AC4	**0,991**	-0,168	-0,208	-0,259
AC5	**0.990**	-0,197	-0,203	-0,272
MO1	-0,194	**0,995**	0.012	0,140
MO2	-0,218	**0,996**	0,008	0,149
MO3	-0,215	**0,993**	0,002	0,142
MO4	-0,204	**0,989**	-0,009	0,154
MO5	-0,178	**0,988**	-0,005	0,139
NPP1	-0,202	0,002	**0,995**	0,294
NPP2	-0,209	0,011	**0,993**	0,287

NPP3	-0,206	0,007	**0,999**	0,290
NPP4	-0,197	-0,003	**0,991**	0,294
NPP5	-0,198	-0,007	**0,994**	0,298
TK1	-0,262	0,141	0,292	**0,993**
TK2	-0,250	0,129	0,302	**0,990**
TK3	-0,265	0,145	0,275	**0,994**
TK4	-0,268	0,149	0,290	**0,994**
TK5	-0,268	0,161	0,300	**0,988**

Source: Smart PLS (2024)

Table 6 above is the test result of *Cross Loading*, where if the indicator> 0.7 with the highest correlation with the latent variable. Based on the cross loading value of the research table, all indicators have a value above 0.7 and also have the highest correlation with the latent variable. So that there are no indicators that need to be removed (Ghozali, 2021).

Table 7 Analysis Variance Inflation Factor (VIF)

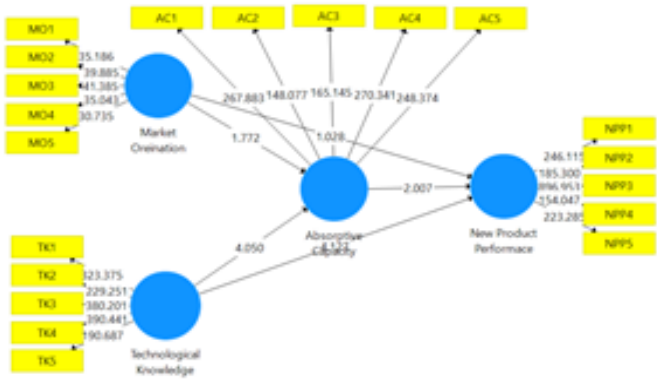
	AC	MO	NPP	TK
AC			1,109	
MO	1,022		1,054	
NPP				
TK	1,022		1,086	

Source : Smart PLS (2024)

Based on the research results, the VIF value <3.3 indicates that the variable has a relatively small effect on multicollinearity and is acceptable or has no threat in the research results model. However, if the variable> 3.3 indicates that the variable is affected by multicollinearity and needs to be corrected immediately. In the table above the results obtained are <3.3 which indicates that the results are acceptable and have no threat (Yildiz et al., 2024).

Figure 2 Measurement Model

Figure 3 Structural Model



In this section, we will assess the validity and predictive importance of the proposed display using 220 sub-samples and the Bootstrapping method. Way coefficient (β) values, t measurements, and p values are utilized to distinguish whether the connections between the builds within the model (MO, TK, AC, and NPP) are factually critical (i.e., at $p < 0.05$, $p < 0.01$, or $p < 0.001$), taking after Table 7 contains the comes about of speculation testing (Al-Hakimi et al., 2021).

Table 8 Direct Effect Analysis

Path	Original Sample	T Statistic	P Value	Result
AC > NPP	-0,147	2,007	0,018	Supported
MO > AC	-0,169	2,819	0,035	Supported
MO > NPP	-0,067	1,088	0,138	Not Supported
TK > AC	-1,240	4,050	0,000	Supported
TK > NPP	0,265	4,127	0,000	Supported

Source: Smart PLS (2024)

Table 9 *Indirect Effect* Analysis

Path	Original Sample	T Statistic	P Value	Result
AC > NPP				
MO > AC				
MO > NPP	0,025	1,053	0,146	Not Supported
TK > AC				
TK > NPP	0,035	2,860	0,032	Supported

Source: Smart PLS (2024)

Effect Of Absorptive Capacity On New Product Performance

Analysts found from *Smart* PLS that AC capability has both a positive and significant impact on NPP. The t *statistic* = 2.007, p-value <0.5, on table 10 indicating that the H3 results are not statistically significant (Najafi-Tavani et al., 2023). AC refers to the unique ability of a company to establish high prices, improve quality, and enhance the new product performance of the organization. By leveraging the data technology ecosystem, companies can transform data into resources for analysis during decision-making (Khan et al., 2022). Information investigation is a

crucial factor that significantly influences a company's innovative performance. Past research indicates that AC revolutionizes the entire business framework by transforming products, processes, and systems into segmented frameworks(Khan et al., 2022).

Effect Of Market Orientation On Absorptive Capacity

From the results of Smart PLS that researchers conducted, MO has a positive influence on AC so that H1a and H1b are not fully supported indirectly. However, directly, MO has a significant positive effect on AC with a t statistic value of 2.819 which is >1.96 and a P Value of 0.035 <0.05 so that these results can be accepted and declared significant (Lin et al., 2020). MO and AC are positive and significant, MO x AC represents the residual multiplication of MO and NPP. The effect of MO x AC on NPP is 0.146 indirectly, which means that at higher levels of AC, the positive effect of MO from NPP is less favorable (Dogbe et al., 2021). The analyst argues that employees with a clear and positive presentation can better acquire and use eco-friendly information from supply chain partners, as Moment includes forms and exercises that ensure eco-oriented data. This study speculates that MO will positively influence AC (Lin et al., 2020).

Effects of Market Orientation on New Product Performance

From the outcomes of Smart PLS, MO has a positive and insignificant impact on NPP with a T statistic value of 1.088 <1.96 and P Value 0.138 >0.05. This impact can be direct or indirect, with an indirect impact T statistic 1.053 <0.05, leading to insignificant results (Fakhreddin & Foroudi, 2022). In the following section, researchers focus on these factors to capture MO as a significant initial variable for NPP performance and summarize previous research findings related to MO and NPP performance (Zhao et al., 2021).

The MO methodology allows companies to gain a comprehensive understanding of customers' expressed and unexpressed needs, enabling the business to introduce new products according to its target market (Fakhreddin & Foroudi, 2022). A company's culture consists of employees' beliefs and perceptions regarding the importance of the organization in guiding interactions with the market to create unique value for customers and achieve superior business performance (Schulze et al., 2022).

Effect Of Technological Knowledge On Absorptive Capacity

From the Smart PLS research results, TK has a positive influence on AC with t statistic 4.050>1.96 and Pvalue 0.000 <0.05 directly or indirectly resulting in NPP with a significant positive result. The analyst re-evaluated the results using alternative measures for sustainability performance based on the triple bottom line framework of the project. Specifically, analysts examined each component of the NPP growth, which includes factors related to MO and TK (Forés & Fernández-Yáñez, 2023).

Supportability, entails achieving a balance of economic, social, and environmental performance, reflects a shift in mindset within the competitive market and how companies establish and maintain competitive advantage (Forés & Fernández-Yáñez, 2023).

Effect Of Technological Knowledge On New Product Performance

The results of the Smart PLS investigation indicate a significant relationship between TK and NPP, with a t-value of 4.127 >1.96 and a P-value of 0.000 <0.50 so that it can be accepted and positively significant directly or indirectly (Buckley & Hashai, 2020). Innovation in companies often comes about through staff knowledge and technology as well as knowledge to create and confirm new product concepts; then product prototypes are launched. The knowledge created through the innovation process is disseminated throughout different organizational structures (Alraggad & Onizat, 2020).

Tabel 10 Analysis Model Summary

	R Square	R Square Adjusted
AC	0,114	0,106
NPP	0,119	0,107

Source: Smart PLS (2024)

When examining the basic model with Smart PLS, it is important to consider the R Squares value for each endogenous latent variable as the predictor for the structural model. Table 11 displays the R Square value in Model Summary. This value represents the goodness of fit, indicating the extent to which the independent variable explains the dependent variable. 0.75, 0.50, and 0.25 each represent strong, moderate, and weak (Hair, 2019). The R Squared value for the Endogenous Variable Absorptive Capacity is 0.106. This means that MO and TK can explain 10.7% of the variation in Absorptive Capacity (Hair, 2019). while the remaining 89.3% is explained by other factors not accounted for in the model. (Hair, 2019). the value of R squares <0.25 indicates the prediction results in the "**Weak**" category.

Table 11 Analysis F Square

	F Square	Description
AC > NPP	0,028	Small Effect
MO > AC	0,031	Small Effect
MO > NPP	0,005	Small Effect
TK > AC	0,062	Small Effect
TK > NPP	0,073	Small Effect

Source: Smart PLS (2024)

In addition to assessing the existence of a significant relationship between factors, analysts also measure the magnitude of the relationship using effect size or F-square. The f-square values are 0.02 for small, 0.15 for medium, and 0.35 for large. Values less than 0.02 are either disregarded or deemed to have no impact according to Cohen (1988) as cited in (Kautsarina et al., 2020).

From the results of the F test conducted, it can be concluded that:

1. The AC value on NPP is 0.028, which means that the AC variable explains 2.8% in the NPP variable
2. The MO value in AC is 0.031, which means that the MO variable can explain 3.1% in the AC variable.
3. The MO value on NPP is 0.005, which means that the MO variable can explain 0.5% in the NPP variable.
4. The TK value in AC is 0.062, which means that the TK variable can explain 6.2% in the AC variable.
5. The TK value on NPP is 0.073, which means that the TK variable can explain 7.3% in the NPP variable.

Impact sizes quantify the influence of individual factors by removing external factors from the equation and observing changes in these factors. PLS-SEM utilizes the F parameter^2 to measure the influence of individual characteristics on the dependent variable. In previous studies, F values^2 of 0.02, 0.13, and 0.26 were classified as low, moderate, and high, respectively (Khan et al., 2022).

Table 12 Analysis Model Goodness OF Fit

	Saturated Model	Estimated Model
SRMR	0,013	0,013
d_ULS	0,035	0,035
d_G	3,357	3,357
Chi_ Square	2203.742	2203.742
NFI	0,853	0,853

Source: Smart PLS (2024)

SRMR is calculated as the disparity between the watched relationship and the assessed demonstrate relationship framework. The SRMR esteem shows the fit of the relationship framework within the show. Based on the Run the show of Thumbs, the SRMR esteem <0.1 resulting model is fit. On table 13 the estimated model 0.013 <0.1, so the resulting data are fit and meet the feasibility of the model (Hair, 2019).

DISCUSSION

The results of this study show that a positive organizational attitude enhances the relationship between Market Introduction and New Product Performance in unstable markets. When firms lack the ability to benefit from unusual market factors, Market Penetration may not be as effective in stable markets. To benefit from Market Exposure in New Product Implementation practices, firms must recognize the unique characteristics of today's market. The quality of modern item launches is strongly linked to the company's modern item implementation. This study focuses on Product Launch as a knowledge-based resource that results in improved new product performance.

CONCLUSION

The advancement of AC allowed for the creation of various contemporary components. From the writing examination and discoveries, it is clear that behavior cannot be isolated in AC. Different types of components indicate behavior (Haryanti & Subriadi, 2021). The study found that: (1) Market Orientation does not affect New Product Performance, (2) Market Orientation has a positive impact on Absorptive capacity, (3) Technological Knowledge competence positively influences New Product Performance. (4) Absorptive Capacity significantly impacts New Product Performance, (5) Technological Knowledge has a positive effect on Absorptive Capacity as a mediating variable (Wahyono & Hutahayan, 2021).

Access to sources and the ability to retrieve essential information from previous journals is invaluable for researchers. By using these facilities, researchers can assess how market exposure and technological data affect industrial product development performance through absorption capacity and gain a deeper understanding of the issue at hand. To ensure that the goals of this study are truly achieved. The proprietor must remain involved throughout the examination process. The exchange of data between owners and analysts at each stage of the research process enhances the managerial relevance and quality of research activities.

SUGGESTION

Suggestions that can be given from this research, this study can be carried out on several manufacturing companies in connection with absorptive capacity, which can pave the way to a more useful source of corporate knowledge in practice to create a new product (Si et al., 2020).

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