The Influence of IT-Enabled Dynamic Capabilities and Service Innovations Affecting Competitive Advantage and Business Performance of Modern Trade

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(Received: September 22, 2023; Revised: November 11, 2023; Accepted: November 13, 2023)

Abstract

This research investigates the impact of IT-enabled dynamic capabilities (ITDCs) and service innovations on competitive advantage and business performance in modern trade. A quantitative study of 344 managers or owners of modern trade businesses, particularly convenience stores, was conducted using online questionnaires. Structural Equation Modeling techniques were used to analyze the data. The study found that ITDCs directly and indirectly influenced business performance, service innovations directly and indirectly affected competitive advantage, and competitive advantage directly influenced performance. Service innovations directly affected competitive advantage but not performance, but they had a positive indirect influence on performance. This research supports the Resource-Based View theory and offers practical guidance for conducting business in various contexts. It also provides managerial benefits by helping organizations manage in rapidly changing environments, particularly in modern trade. Organizations can use the ITDCs and service innovations model developed in this study to improve and achieve their operational goals.

Keywords: 1) IT-Enabled Dynamic Capabilities 2) Service Innovations 3) Competitive Advantage 4) Business Performance 5) Modern Trade

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Introduction

The COVID-19 crisis has significantly influenced consumer behavior, leading to an increased reliance on online purchases of goods and services. This shift occurs alongside an ever-intensifying competitive business environment, causing modern trade to experience reduced sales and revenue. To sustain their competitive advantage, these businesses are compelled to adapt. Modern Trade retail business plays a significant role in Thailand's economy, with a value of 2.8 trillion baht in 2019. This accounts for 16.5% of the GDP, ranking it second, only behind the manufacturing sector (Tunpaiboon, 2021, p. 1). Especially in the business of Modern convenience stores which hold a critical role in the national economy, presenting a diverse range of products and services to consumers. They operate on high-efficiency trading systems and employ technology-driven management to meet consumer needs. Among different types of modern retail, convenience stores have recorded the highest growth rates. In 2020, there were 17,341 stores nationwide, (Tunpaiboon, 2021, p. 7) featuring brands such as 7-Eleven, Family Mart, Lotus's go fresh, Mini Big C, Top Daily, CJ Express, and Lawson 108. These stores have garnered higher total revenue than other retail sectors due to their broader customer base and extensive geographic presence.

However, the aforementioned crisis has brought about its own set of challenges and business pressures as following: (1) Sales and revenue experienced a decline of 9.0-10.0% in 2020. (2) The intensification of business competition, coupled with a rising number of competitors, has resulted in reduced revenue per store. (3) There has been a noticeable shift in consumer behavior, with increased emphasis on online platforms for purchasing goods and services (Tunpaiboon, 2021, p. 7) In light of these challenges, convenience store businesses must urgently adapt and pivot their operational strategies to align with the rapidly changing environment. Previous studies focusing on IT-enabled dynamic capabilities, such as those by Ilmudeen (2022, pp. 1137-1139); Mikalef (2014, p. 93); Mikalef and Pateli (2017, pp. 2-3) present a dimension that extends beyond an organization's basic dynamic capabilities. These capabilities are crucial for the modern trade, as information technology aids organizations in swiftly adapting various functions. However, relying solely on dynamic capabilities may not be sufficient for achieving a competitive advantage. A study by Pilawa, et al., (2022, pp. 2-3) underscores the importance of service innovation in enabling modern trade businesses to swiftly respond to evolving customer needs amid the COVID-19 pandemic. Such innovation plays a pivotal role in creatively shaping the business to access targeted customer segments, establishing a competitive advantage, and enhancing operational performance. Organizations possessing dynamic capabilities can thus develop service innovations that cater to customer needs and broaden their market reach.

This research examines the influence of IT-enabled dynamic capabilities and service innovation on gaining a competitive advantage and organizational performance in the context of modern trade. The findings from this

study offer invaluable insights, contributing to further research and providing guidance for both public and private sector management in a changing environment. Organizations can utilize the model to adapt with their business by leveraging IT-enabled dynamic capabilities and service innovation. This ensures a competitive advantage and help business operations achieving their set objectives.

Objectives

1. To study the relationship and influence of IT-enabled dynamic capabilities on the business performance of modern trade, focusing on how these capabilities and service innovations affect competitive advantage and overall business performance.

2. To investigate the relationship and influence of IT-enabled dynamic capabilities on service innovation and competitive advantage of modern trade.

3. To explore the direct influence of competitive advantage on the business performance of modern trade, aiming to identify how having a competitive advantage directly influences performance metrics.

4. To examine the direct influence of service innovation on competitive advantage, as well as its indirect influence on the business performance of modern trade.

Literature Review

1. The concept of IT-enabled dynamic capabilities (Information Technology Enabled Dynamic Capabilities) is a crucial factor that enables organizations to rapidly adapt and gain a competitive advantage. Mikalef, van de Weteing and Krogstie (2021, p. 516) defined this as an organization's ability to leverage its information technology resources and capabilities, along with other resources and skills, to manage a rapidly changing business environment. This allows the organization to adapt swiftly and gain a competitive advantage, contributing to business performance efficiency. From the literature review, the concepts of Pavlou and El Sawy (2011, p. 243); Mikalef and Pateli (2017, p. 2); Ilmudeen, et al., (2021, p. 511) were applied, and the element of seizing was added. This refers to an organization's ability to make timely decisions to capture business opportunities, which helps differentiate the business and quickly respond to consumer needs, making it crucial for modern trade. Therefore, this research identifies six aspects of IT-enabled dynamic capabilities: 1) Sensing capability, 2) Seizing capability, 3) Reconfiguring capability, 4) Learning capability, 5) Integration capability, and 6) Coordination capability.

2. Service Innovation: Modern trade place great importance on utilizing service innovations to enhance their operations, aiming to make consumers feel safe and convenient while purchasing goods and using services (Pilawa, et al., 2022, pp. 2-3). Den Hertog, van der Aa and de Jong (2010, p. 494) defined service innovation as a method that proposes services to solve customer problems according to specific objectives or goals. Witell, et al., (2016, p. 16) described it as something new and useful in generating service concepts, promotions, and operations for improving existing services. Therefore, service innovation refers to business services arising from new ideas, involving the

creation of new services, presentation, and delivery that blend with modern technology to add value. These services are designed to solve problems for customers and meet their needs effectively. Based on a review of the literature related to service innovation, including concepts from Den Hertog, van der Aa and de Jong (2010, p. 493); Hsieh, et al., (2013, p. 374); Lin, Su and Higgins (2016, p. 958); Pilawa, et al., (2022, p. 4) this research identifies three main components of service innovation: 1) New Service, 2) Offering, 3) Delivery

3. Competitive Advantage: According to Barney (1991, p. 115), organizations can achieve a competitive advantage over their rivals by having valuable, rare, inimitable, and non-substitutable resources. This is a key source for sustainable competitive advantage and superior organizational performance. This perspective focuses on the internal resources of the organization. On the other hand, Porter (1985, p. 12) suggests that organizations can seek competitive advantage through cost leadership, differentiation, and focus strategies, concentrating mainly on marketing aspects. Wheelwright (1978, pp. 61-64) proposes that aspects like price, quality, reliability, and speed of delivery are crucial in competing effectively. Therefore, in a fiercely competitive landscape, each organization must strive to outperform competitors using suitable competitive strategies aligned with their business objectives and the current environment. The success or failure of an organization depends on the competitive advantage it holds. Competitive advantage refers to an organization's upper hand in conducting business better than its rivals in terms of low-cost management, quality of products and services, differentiation, and responsive service delivery that aligns with market needs and customer behavior. After reviewing the literature related to competitive advantage, the study identifies four main components of competitive advantage: 1) Cost Advantage, 2) Quality Advantage, 3) Differentiation Advantage, 4) Delivery Advantage.

4. Organizational Performance: Organizational performance serves as an indicator of how well an organization has achieved its objectives and is measured by both financial and non-financial metrics that assess the level to which an organization has achieved its goals. Business performance refers to an organization's success derived from leveraging its resources and capabilities to adapt to a changing environment and achieve its set objectives. In modern trade, performance is assessed through diverse metrics, which can be financial, such as revenue, expenses, net income, cash flow, and asset value, and non-financial, such as customer satisfaction, market share, employee satisfaction, and employee turnover rates. Upon the literature review related to organizational performance, the study adopts the framework by Kaplan and Norton (1996, p. 7) which consists of four dimensions: 1) Financial Performance, 2) Customer Performance, 3) Internal Process Performance, 4) Business Learning and Growth Performance.

From a review of literature and related research, it was found that previous studies have supported the relationship of dynamic capability influencing the organizational performance (Mikalef and Pateli (2017, p. 10); Ilmu-

deen, et al., (2021, p. 522). Dynamic capability influences competitive advantage (Chen and Tsou (2007, p. 16); Breznik and Lahovnik (2016, p. 182).Dynamic capability impacts service innovation (Ziyae, Sadeghi and Golmohammadi (2021, pp. 16-17). Moreover, service innovation influences competitive advantage (Pilawa, et al., (2022, p. 8); Chen and Tsou (2007, pp. 16-17). Service innovation impacts organizational performance (Prajogo and Oke (2016, p. 988). And competitive advantage influences organizational performance (Prakash (2014, p. 585); Li, et al., (2006, p. 119). Therefore, from the review of literature and related research mentioned above, it leads to the hypothesis that IT-enabled dynamic capabilities and service innovation will affect competitive advantage and organizational performance. The research hypotheses are as follows:

Research Hypothesis

H1: IT-Enabled Dynamic Capabilities has a direct influence on the service innovation of modern retail businesses.

H2: IT-Enabled Dynamic Capabilities has a direct influence on the performance of modern retail businesses.

H3: IT-Enabled Dynamic Capabilities has a direct influence on the competitive advantage of modern retail businesses.

H4: Service innovation has a direct influence on the competitive advantage of modern retail businesses.

H5: Service innovation has a direct influence on the performance of modern retail businesses.

H6: Competitive advantage has a direct influence on the performance of modern retail businesses.

H7: Service innovation has an indirect influence on the performance of the business, with business competitive advantage serving as a mediating variable.

H8: IT-Enabled Dynamic Capabilities has an indirect influence on the performance of modern retail businesses.

Methods

Scope of Study

This study focuses exclusively on the modern retail business, specifically convenience stores, in Thailand. The geographical scope of the research encompasses Bangkok, Central Thailand, Northern Thailand, Northeastern Thailand, Eastern Thailand, Western Thailand, and Southern Thailand, as categorized by the Office of the National Economic and Social Development Council (2019, p. 7). The study period is from September 2022 to May 2023. The research aims to examine the relationship between IT-enabled dynamic capabilities and service innovations, and how these factors affect the business performance of modern trade.

Population and Sample

The population for this research comprised modern trade in the convenience store category, including 7-Eleven, Family Mart, Lawson 108, Lotus's go Fresh, Mini Big C, Tops Daily, and CJ Express, totaling 17,341 stores (Tunpaiboon, 2021, p. 7). The researcher used the sample size determination method of Krejcie and Morgan's (1970, pp. 608-609) and obtained a sample size of 376 individuals. The

researcher employed a probability sampling method using stratified random sampling, with the type of business and region serving as the strata. This is shown in Table 1.

Table 1 displays the sample selection using the stratified random sampling method.

Business	Population	Percentage	Sample	Questionnaires
1. 7-Eleven	12,225	70.00	265	883
2. Lotus's go Fresh	1,635	9.00	35	117
3. Mini Big C	1,153	7.00	25	83
4. Family Mart	972	6.00	21	70
5. Lawson 108	648	4.00	14	47
6. CJ Express	600	3.00	13	43
7. Tops Daily	108	1.00	3	10
Total	17,341	100	376	1,253

Information from: Compiled by Krungsri Research Note: P = preliminary, E = estimated (as of 3Q63)

The data collection: The data collection for the research was done using online questionnaires. In total, 1,253 sets of questionnaires were sent out, of which 424 were received back. From these, 344 were completed in full and suitable for analysis, representing a response rate of 33.84%. The researcher set the average online response rate at 30% as per Ogier (2005, p. 87).

Research tools

The research tools consist of questionnaires divided into 6 sections:

Section 1: General Information about the respondents: This section has 5 items covering gender, age, educational level, work experience, and job position. There are also 4 items about the business, including the type of business, duration, location, and the number of employees.

Section 2: Information on IT-enabled dynamic capabilities: This section contains a total of 30 questions measured on a 7-point Likert scale. The questions are divided into 6 aspects: 1). Opportunity Sensing, 2) Opportunity Seizing, 3) Adaptability, 4) Learning, 5) Integration, 6) Coordination. The answers were estimated using a 7-point Likert scale.

Section 3: Information on Service Innovations: This section has 15 questions, measured on a 7-point Likert scale. The questions are divided into 3 aspects: 1) New services, 2) Service presentation, 3) Service delivery. The answers were estimated using a 7-point Likert scale.

Section 4: Information on Competitive Advantages: This section consists of 20 questions measured on a 7-point Likert scale. The questions are divided into 4 aspects: 1) Cost advantage, 2) Quality advantage, 3) Differentiation advantage, 4) Delivery advantage. The answers were estimated using a 7-point Likert scale.

Section 5: Information on Business performance of Modern Trade: This section contains 20 questions, also measured on a

7-point Likert scale. The questions are broken down into 4 aspects: 1) Financial Performance, 2) Customer Performance, 3) Internal Process Performance, 4) Business Learning and Growth Performance. The answers were estimated using a 7-point Likert scale.

Section 6: Suggestions

Tool Quality Verification

The researchers developed a set of questions informed by existing theories and literature reviews, as well as related research from various scholars. To validate the tool's content, five experts were consulted to assess the questionnaire's content validity. This involved reviewing the appropriateness and accuracy of the content and language used. Subsequently, the Index of Item-Objective Congruence (IOC) was calculated, with scores ranging between 0.60 to 1.00 for all items. Following this, the reliability value was determined by trying out with a group that was not a sample of this research but had similar properties and characteristics, totaling 30 sets. Internal consistency was assessed using Cronbach's Alpha Coefficient, employing Cornbrash's methodology (Cronbach, 1990, pp. 202-204). It was found that the value was between 0.947 to 0.982, with an overall coefficient being 0.988. Considering these results, and given that the reliability coefficient for all variables exceeded 0.70, the tool was deemed acceptably reliable. Further statistical analysis revealed normal data distribution, as evidenced by skewness values between -0.143 to -0.442, and kurtosis values between -0.260 to -1.007, falling within the accepted ranges of -3 to +3 and -10 to +10, respectively. Thus, the data was deemed suitable for subsequent measurement model and research model analyses. The test results for normal data distribution were evaluated based on skewness and kurtosis values. The skewness values ranged from -0.143 to -0.442, falling within the range of -3 to +3. The kurtosis values were between -0.260 to -1.007, falling within the range of -10 to +10. From the analysis, the Composite Reliability (CR) should be greater than or equal to 0.70 (Hair, et al., 2010, pp. 776-779), and the Average Variance Extracted (AVE) should be greater than or equal to 0.50 (Fornell and Larcker,1981, pp. 39-50). The results revealed that: (1) The Information Technology Enabled Capabilities (ITEDC) had a Composite Reliability (CR) of 0.979 and an Average Variance Extracted (AVE) of 0.885. (2) Service Innovation (SI) had a Composite Reliability (CR) of 0.712 and an Average Variance Extracted (AVE) of 0.904. (3) Competitive Advantage (CA) had a Composite Reliability (CR) of 0.836 and an Average Variance Extracted (AVE) of 0.845. (4) Organizational Performance (OP) had a Composite Reliability (CR) of 0.851 and an Average Variance Extracted (AVE) of 0.882. From the analysis, all variables passed the criteria for Composite Reliability (CR) and Average Variance Extracted (AVE). This allows for further analysis of the measurement model and the structural model.

Results

Section 1: General Information on respondents and businesses

The questionnaire had revealed that the majority of respondents were female, constituting 68.9%. Most were aged between

25-30 years, representing 34.3%, and held a bachelor's degree, accounting for 88.95%. Additionally, 45.6% had work experience of 5-10 years in the industry, and 92.7% held managerial positions. As for the general business data, it was discovered that most participating convenience stores in Thailand belonged to the 7-Eleven chain, making up 69.19%. These enterprises had been in operation for 1-5 years, comprising 33.4%, were predominantly situated in the central region, amounting to 16.9%, and typically employed 10-15 individuals, contributing to 63.09% of the questionnaire sample.

Section 2: Analysis of opinions regarding the influence of IT-enabled dynamic capabilities and service innovation on competitive advantage and business performance of modern trade

The analysis had revealed that overall opinion was at a high level, with a means core of 5.707. When broken down by variables, it was found that Service Innovation yielded the highest mean score, representing at 5.935. This was followed by IT-enabled dynamic capabilities with a mean score of 5.853, Competitive Advantage at 5.818, and lastly, Organizational Performance scoring a mean of 5.709, in that order.

Section 3: Analysis of the Model According to Research Hypotheses

The analysis had indicated that (1) IT-enabled dynamic capabilities exerted a direct positive influence on Organizational Performance, with a statistically significant direct influence value of 0.225. Consequently, the research hypothesis no.2 stating that IT-enabled dynamic capabilities have a direct positive influence on the Business performance of Modern Trade was accepted. Moreover, IT-enabled dynamic capabilities were also found to have an indirect positive effect on Organizational Performance, mediated by Competitive Advantage, with a statistically significant indirect influence value of 0.502. This led to the acceptance of the research hypothesis no.8 suggesting that IT-enabled dynamic capabilities had an indirect positive influence on the Business performance of Modern Trade.

(2) The analysis had demonstrated that IT-enabled dynamic capabilities exerted a direct positive influence on Service Innovation, with a statistically significant influence value of 0.858; thus, the research hypothesis no. 1, stating that IT-enabled dynamic capabilities had a direct positive effect on Service Innovation in Modern Retail Trade, was accepted. Additionally, IT-enabled dynamic capabilities also had a direct positive influence on Competitive Advantage, with a statistically significant value of 0.274. This led to the acceptance of the research hypothesis no. 3 stating that IT-enabled dynamic capabilities have a direct positive effect on Competitive Advantage in Modern Retail Trade. Moreover, IT-enabled dynamic capabilities were found to have an indirect positive influence on Competitive Advantage, mediated by Service Innovation, with a statistically significant indirect influence value of 0.547.

(3) The analysis revealed that Competitive Advantage had a direct positive influence on the Organizational Performance of the business, with a statistically significant direct

influence value of 0.531. Consequently, the research hypothesis no. 6, stating that Competitive Advantage has a direct positive effect on the Business performance of Modern Trade, was accepted.

(4) The study showed that Service Innovation had a direct positive influence on the Competitive Advantage of the business, with a statistically significant direct influence value of 0.638. Thus, the research hypothesis no. 4, which states that Service Innovation has a direct positive effect on the Competitive Advantage of Modern Retail Business, was accepted. However, it was also found that Service Innovation did not have a direct influence on Organizational Performance, leading to the rejection of the research hypothesis no.5 that Service Innovation has a direct positive effect on the Business performance of Modern Trade. Additionally, Service Innovation had an indirect positive influence on Organizational Performance, mediated by Competitive Advantage, with a statistically significant indirect influence value of 0.339. Therefore, the research hypothesis no. 7, stating that Service Innovation has an indirect positive effect on Business performance, mediated by Competitive Advantage, was accepted. The study lays out both the direct and indirect influences of the variables, in line with the research hypotheses, as shown in Table 2.

Table 2 illustrates the Direct Effects (DE), Indirect Effects (IE), and Total Effects (TE) of the model of the Influence of IT-enabled dynamic capabilities and service innovation on competitive advantage and business performance of modern trade.

Viables			Regression weights				Standardized regression weight	Effect		
			b	S.E.	C.R.	p-vale	β	DE	IE	TE
ITEDC	→	SI	0.825	0.043	19.241	***	0.858	0.858**	-	0.858**
ITEDC	→	OP	0.238	0.087	2.744	***	0.225	0.225*	0.502*	0.727**
ITEDC	→	CA	0.284	0.068	4.171	***	0.274	0.274*	0.547**	0.821*
SI	→	CA	0.686	0.075	9.165	**	0.638	0.638*	-	0.638*
SI	→	OP	0.084	0.116	0.725	0.469	0.077	0.077	0.339**	0.416*
CA	→	OP	0.543	0.095	5.743	***	0.531	0.531**	-	0.531**

Note: DE=Direct Effect, IE=Indirect Effect, TE=Total Effect

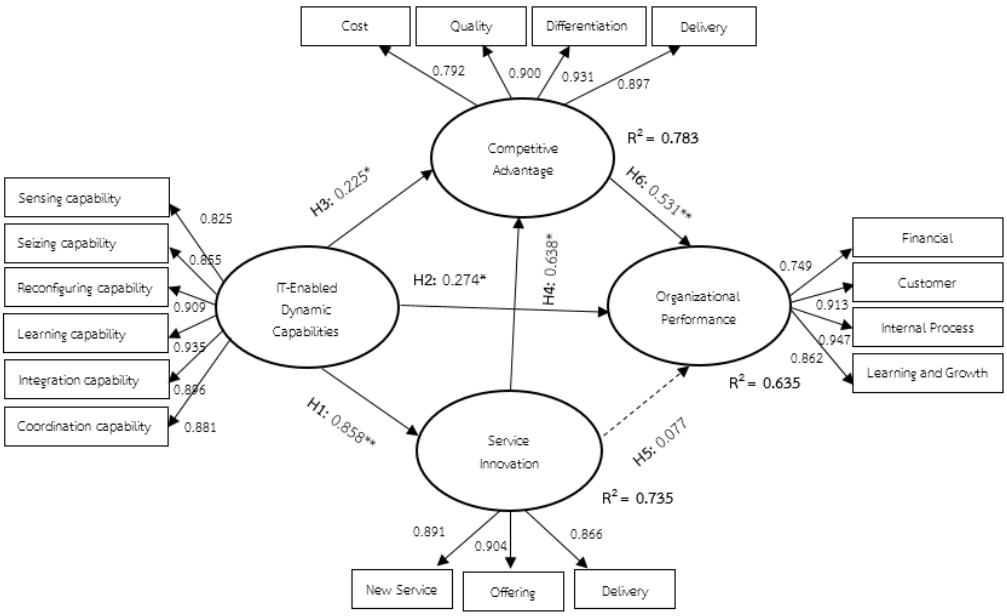
* With a statistical significance level of .05, ** With a statistical significance level of .01

Conclusion and Discussion

Conclusion

The relationship between the IT-enabled dynamic capabilities model and service innovation that influenced competitive advantage and the business performance of modern trade revealed the following statistical values: Chi-Squared (χ^2) was 115.807. Statistical significance (p-value) was 0.063. Relative Chi-Squared (χ^2/df) was 1.232. Comparative Fit Index (CFI) was 0.997. Goodness of Fit Index (GFI) was 0.983. Adjusted Goodness of

Fit Index (AGFI) was 0.940. Root Mean Square Error of Approximation (RMSEA) was 0.026. All these values met the set criteria (Hair, et al., 2010, pp. 776-779), indicating that the model aligned with the empirical data, as shown in Figure 1. The analysis of the coefficient of determination (R^2) among variables such as IT-enabled dynamic capabilities (ITEDC), Service Innovation (SI), Competitive Advantage (CA), and Organizational Performance (OP) found the following: The model structure for the latent variable of Service Innovation (SI) had a coefficient of determination (R^2) of 0.735 or 73.50%. This indicated that the IT-enabled dynamic capabilities (ITEDC) influenced Service Innovation (SI) with a strong influence of 73.50% (R2=0.735) at a significant level of 0.01. The latent variable of Competitive Advantage (CA) had a coefficient of determination (R^2) of 0.783 or 78.30%. This revealed that factors from IT-enabled dynamic capabilities (ITEDC) and Service Innovation (SI) together influenced the Competitive Advantage (CA) in the same direction with a significant influence of 78.30% (R^2=0.783) at a significance level of 0.05. Among these, ITEDC had the highest influence on CA (DE = 0.274, IE = 0.566) followed by Service Innovation (SI) (DE = 0.638). The latent variable of Organizational Performance (OP) had a coefficient of determination (R^2) of 0.635 or 63.50%. This suggested that factors like IT-enabled dynamic capabilities (ITEDC), Service Innovation (SI), and Competitive Advantage (CA) collectively influenced the Organizational Performance (OP) in the same direction with a significant effect of 63.50% (R^2=0.635) at a significance level of 0.05. Among them, ITEDC had the highest influence on OP (DE= 0.225, IE=0.530), followed by Competitive Advantage (CA) (DE=0.531) and then Service Innovation (SI) (DE=0.077, IE=0.372), respectively.



Note: * With statistical significance at the .05 level, ** with statistical significance at the .01 level

Figure 1 Model of the influence of IT-enabled dynamic capabilities and service innovations on competitive advantage and business performance of modern trade

Discussion

The findings from the study on the influence of IT-enabled dynamic capabilities on service innovation of modern trade were as follows: (1) IT-enabled dynamic capabilities had a direct positive influence on service innovation, especially in terms of learning. Modern trade use information technology to create new knowledge and apply it to their operations. This allows businesses to innovate services that cater to customer needs. This is consistent with Tunpaiboon (2021, p. 8) who explained that modern retail entrepreneurs tend to rapidly adapt in order to expand their revenue base and customer group. They rely on technology and new innovations to compete with major players in the online market. Similarly, research by Ziyae, Sadeghi and Golmohammadi (2021, pp. 16-17) found that organizations with dynamic capabilities can develop service innovations that meet customer needs. Such services help businesses to reach a wider customer base. Furthermore, organizations need to continuously learn and innovate to gain a competitive advantage in a rapidly changing environment.

(2) IT-enabled dynamic capabilities had a direct positive influence on the business performance of modern trade. Businesses utilize information technology to generate new, valuable knowledge that enhances the efficiency of their operations. This aligns with the research by Mikalef (2014, p. 97); Mikalef and Pateli (2017, p. 10); Ilmudeen, et al., (2021, p. 522) which describes how modern trade leverage information technology to propel various capabilities, allowing organizations to adapt and meet customer needs swiftly, leading to improved organizational performance. Similar studies by Liu and Yang (2021, p. 2925) have asserted that organizations must employ information technology in their operations as a tool to adapt rapidly, especially those focusing on services. They need to rely on information technology to enhance organizational capabilities for continual service improvement. This suggests that organizations with high IT-enabled dynamic capabilities tend to achieve better performance in the modern retail business sector.

(3) IT-enabled dynamic capabilities had a direct positive influence on a business's competitive advantage. Modern trade businesses employ information technology to produce new knowledge, offering innovative and diverse products or services tailored to current customer behaviors. They introduce new, innovative services to increase customer satisfaction and use technology to deliver products or services that meet customer needs, resulting in a competitive advantage over rivals. This corresponds with the study by Chen and Tsou (2007, p. 16) which found that the utilization of information technology in operations positively affects service innovation, which in turn boosts an organization's competitive advantage. Similarly, research by Breznik and Lahovnik (2016, p. 182) indicated that organizations need to transform their resources into valuable assets using dynamic capabilities as a guideline. This enables them to continuously adapt to maintain their competitive advantage. This is consistent with Teece, Pisano amd Shuen (1997, p. 515), who suggested that dynamic ca-

pabilities are crucial for addressing challenges and fostering competitive advantage in rapidly changing environments.

(4) Service innovation had a direct positive influence on a business's competitive advantage. This is because service innovation acts as a tool that allows businesses to reach their target customer groups by offering captivating services to increase sales. It can address customer needs and serve as a solution to their problems, distinguishing the business from its competitors and leading to a competitive advantage. This is in line with the research of Pilawa, et al., (2022, p. 8) which found that service innovation allowed retail entrepreneurs to swiftly respond to the changing needs of customers amid the COVID-19 pandemic crisis, setting them apart from competitors. It helped in creating a competitive advantage and led to improved business performance. Similarly, a study by Chen and Tsou (2007, pp. 16-17) found that service innovation positively influences competitive advantage. This underscores the importance of service innovation in enhancing service development, promoting services, and post-sales service for organizations to create and maintain their competitive advantage.

(5) Service innovation did not directly influence an organization's performance due to the spread of the COVID-19 virus and increased business competition. Consequently, the operation of modern trade using service innovation alone may not result in improved organizational performance. However, if there are mediating factors, it can positively influence the organization's performance. In contrast, research from Prajogo and Oke (2016, p. 988) found that service innovation affects business operations. Organizations with service innovation can improve their performance better and provide superior services. This leads to the creation of new market channels that the organization can benefit from, allowing the organization to attract more customers, leading to an increased market share. Furthermore, the organization can charge a higher price for superior innovations, which will generate higher sales and improved performance.

(6) Competitive advantage directly positively influences organizational performance. Modern trade with a superior competitive advantage, in terms of low cost management, product and service quality, differentiation, and responsive delivery in line with market needs and customer behavior, achieve a better business performance. The continuous environmental changes require organizations to adapt and change their business development approaches. Utilizing this competitive advantage steers them towards superior performance, as reflected by the findings of Prakash (2014, p. 585) which suggested that continual environmental shifts necessitate organizations to adapt their business development strategies, employing competitive advantage as a pathway to enhanced performance. Consequently, an organization's success and failure are contingent upon its competitive advantage. This aligns with the research of Li, et al., (2006, p. 119), which discovered that an increased competitive advantage leads to better organizational performance. Therefore, organizations should prioritize building

a competitive advantage, whether it's offering distinctive services that impress customers, superior product and service quality compared to competitors, reliable and safe product or service delivery, or efficient cost management that reduces expenses, leading to enhanced organizational outcomes.

(7) Service innovation had an indirect positive influence on organizational performance, mediated by competitive advantage. The research results show that service innovation, in terms of new services, service presentation, and delivery, in the context of modern retail business, contributes to organizational performance. However, when competitive advantage is used as a mediating variable, it can further enhance organizational performance. This aligns with the research context of Sarya, et al., (2022, p. 293), which found that competitive advantage mediates the relationship between service innovation and organizational performance. Service innovation, presenting new ideas focusing on services, introducing innovative methods, delivering benefits, and new business service models through continuous operational improvement, using technology, employee development, or creating customer experiences, will positively affect business performance.

(8) IT-enabled dynamic capabilities indirectly influence organizational performance in a positive way, with competitive advantage serving as the mediating variable. The spread of the COVID-19 virus and intensifying business competition require businesses to quickly adapt to changes. By leveraging IT-enabled dynamic capabilities, businesses aim to gain competitive advantages that focus on differentiation. Many businesses develop numerous value-added services to impress customers, offer attentive and distinctive services that set them apart from competitors, and continually research and innovate new products or services. This aligns with the research of Correia, Dias and Teixeira (2020, p. 198), which found that competitive advantages in differentiation and cost leadership positively influence organizational performance. Similarly, the study by Ferreira, Cardim and Coelho (2021, p. 15) discovered that a significant competitive advantage influenced organizational performance, leading organizations to superior results.

Suggestions

1. Theoretical Suggestions: Previous studies have used IT-enabled capability as a tool to drive the existing dynamic capabilities of organizations to become more efficient. The results of this research showed that IT-enabled dynamic capabilities could create a distinctiveness in an organization's dynamic capabilities, allowing them to surpass others and enabling the organization to devise new methods or solutions to problems. This is achieved by developing dynamic capabilities, especially in terms of learning capabilities, using information technology to generate new useful organizational knowledge. Enabling IT to analyze and process data, to integrate new information and knowledge that aligns with the business operations, as well as employing IT to adapt accumulated information and knowledge for business decision-making, can provide pathways for organizations to swiftly adjust. This can give them a competitive advantage and

enhance operational efficiency, especially in a changing environment.

2. Managerial Suggestion: This study offers business adaptation guidelines that managers or business owners can apply to define their business strategies as follows: (1) Problem-Solving and Strategic Direction: By developing IT-enabled dynamic capabilities that focus on learning abilities, one can use information technology to create new, useful organizational knowledge. This knowledge can then be employed to analyze and process data consistent with business operations and contribute to business decision-making. (2) Responding to Consumer Behavior: Businesses should be able to respond to the behavior of consumers who seek innovative service methods. This includes presenting a diverse range of innovative products or services that align with current customer behaviors, offering various discount programs, and presenting more creative promotions than other stores. (3) Competitive Advantage Through Differentiation: Modern trade should focus on developing supplementary services that add value and impress customers. They should offer attentive services that are distinct from competitors and continuously research to develop new products or services. This direction leads to effective organizational performance. Thus, executives at all levels, both in the public and private sectors, can apply these methods or guidelines at the organizational level. They serve as a framework for managing organizations in rapidly changing situations. Especially for modern trade, this model can be used for business adaptation through the use of IT-enabled dynamic capabilities and service innovations. This would give the business a competitive advantage and help it achieve its goals.

Suggestions for future research

1. For future research, it is recommended to conduct a quantitative research study exploring other factors that affect organizational performance. This would provide a comprehensive overview of the analysis of organizational performance in modern retail business, offering clearer and more inclusive insights into the business's challenges.

2. For the next research, it is recommended to study the role of mediating variables, such as the competitive advantage variable and service innovation, which serve as mediators. The study should test whether these variables act as a complete mediation or only partial mediation. This will help to understand the components of competitive advantage and service innovation that are related and influence the clear organizational outcomes.

3. Future research should apply the model of IT-enabled dynamic capabilities and service innovation that influences competitive advantage and organizational performance to other business groups. This would confirm if the study results can be referenced to other businesses and further research should be conducted comparing the differences between business sizes.

4. The current research is a quantitative research. Therefore, future research should consider in-depth studies using qualitative research methods or a mixed-methods

research approach to discover other factors affecting the performance of modern retail business organizations and for data collection of the sample group, it should be collected according to the predetermined sample size to ensure the quality and reliability of the research.

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