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# The linkages among environmental dynamism, dynamic capability and competitive advantage: Significant implication for retail development

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**Abstract:** This study simultaneously examined the linkages among environmental dynamism, three dynamic capabilities, and the competitive advantages of retail businesses, which have not been identified before. Furthermore, this study fills the significant gaps in the literature and practical guidelines for retail development through improving retailer's dynamic capabilities in response to environmental dynamism. The study used a quantitative approach by partial least squares SEM (PLS-SEM) to examine the hypotheses. Data were collected from 304 Vietnamese retail business managers. The results show that environmental dynamism plays a significant role in fostering the improvement of retailers' dynamic capabilities. The findings also reveal positive linkages among the three dynamic capabilities before they significantly improve retailers' competitive advantage. These are the valuable guidelines for retailers to nurture their dynamic capabilities, including service innovation capabilities, multi-channel integration, and brand orientation for sustaining their competitive advantages.

**Keywords:** environmental dynamism; service innovation capability; multi-channel integration systems; branding orientation; competitive advantage

## 1. Introduction

The resource-based view (RBV) focuses on exploiting resources that are valuable, rare, inimitable, and non-substitutable to create and sustain a firm's competitive advantage (Barney, 1991). Developed from the RBV and put in the context of a rapidly changing environment, the theory of dynamic capability (DCV) reinforces the importance of integrating and configuring resources and capabilities to quickly respond to environmental changes and maintain a firm's competitive advantage (Teece, 2017). However, to the best of our knowledge, little attention has been paid to research that considers environmental dynamism as an antecedent factor influencing the firm's response through dynamic capability. Most previous studies have focused on exploring the role of environmental dynamism (ED) in moderating the relationship between dynamic capabilities and CAD (Bayighomog Likoum et al., 2020; Do et al., 2022; Girod and Whittington, 2017; Li and Liu, 2014; Wilhelm et al., 2015; Wu and Nguyen, 2019). As ED has been seen as a critical premise for businesses to develop suitable dynamic capabilities to quickly respond to environmental changes and maintain a firm's competitive advantage (Teece, 2017), it is necessary to conduct a study to explore dynamic capabilities as the response of the firm to environmental dynamism along with the influence of these capabilities on a firm's competitive advantage. Based on this foundation, this study adopts the RBV and DCV as the underpinning theories and focuses on exploring the linkages among the environmental dynamism, dynamic capabilities, and competitive advantage (CAD) of a firm

(Bayighomog Likoum et al., 2020; Girod and Whittington, 2017; Li and Liu, 2014; Wilhelm et al., 2015). Thus, the present study is very valuable to fill the significant gap in exploring ED as a critical premise for businesses to develop dynamic capabilities in order to adapt to environmental changes and enhance a firm's competitive advantage (Teece, 2017).

While various studies have explored dynamic capabilities in the context of manufacturing firms, few have focused on the retail sector, even though this sector has been heavily influenced by environmental changes (Wu and Nguyen, 2019). Additionally, although several prior studies have suggested some typical dynamic capabilities for retailers, including service innovation capability (Odoom and Mensah, 2019; Wu and Nguyen, 2019), multi-channel integration systems (Frasquet et al., 2018; Herhausen et al., 2015; Tagashira and Minami, 2019), and branding orientation (Balmer and Podnar, 2021; Odoom, 2016; Wu and Nguyen, 2019), service innovation capability (SIC) concentrates on creating and renewing retail services that may provide additional value to customers. multi-channel integration (MC) focuses on combining and integrating physical and online channels to provide products and services for customers (Goraya et al., 2020; Herhausen et al., 2015); and brand orientation (BO) enables retailers to improve brand trust, loyalty, and reputation (Gupta et al., 2020; Huang and Tsai, 2013; Lee et al., 2017). Nevertheless, there is a lack of research that simultaneously investigates these competencies as representatives of the dynamic capability of a retail business, and examines their effects on maintaining sustainable CAD. Therefore, an empirical study should be conducted to assess the simultaneous effect mechanism and degree of SIC, MC, and BO on CAD.

Additionally, regarding the linkages between SIC, MC, and BO, prior studies suggest that SIC positively affects other capabilities (Tsai, 2015; Wu and Nguyen, 2019). SIC has been explored to improve multi-channel integration systems (Du et al., 2018), and brand orientation (Flikkema et al., 2019; Gupta et al., 2020; Huang and Tsai, 2013; Paswan et al., 2020). In the context of retail services, these impact mechanisms require further research to enhance the effectiveness of MC systems and BO activities before they promote the development of a retailer's CAD.

As mentioned, this study focuses on answering the questions related to the linkages among ED, SIC, MC, BO, and CAD of retail firms to explore their impact mechanisms as well as the question of how to improve retailers' proactiveness in adapting to perceived environmental changes and how to enhance their competitive advantage by enhancing their perception of nurturing SIC, MC, and BO. This study makes both theoretical and practical contributions. This study aims to (1) explore the direct influence of environmental dynamism on SIC, MC, and BO; (2) investigate the influence mechanism among three capabilities (SIC, MC, and BO); and (3) examine the direct effects of SIC, MC, and BO on a retailer's competitive advantage. Based on the research findings, this study provides recommendations for retail firms to (1) improve retailers' proactiveness in adapting to perceived environmental changes and (2) enhance their competitive advantage by enhancing their perception of nurturing SIC, MC, and BO.

This study makes both theoretical and practical contributions. For theoretical contributions, firstly, it extends current knowledge on how ED influences directly a firm's dynamic SIC, MC, and BO. Second, current knowledge about the impact of SIC

on MC and BO should be widened to reinforce the antecedent role of SIC in strengthening the MC system and driving BO. Third, the improvement of CAD by nurturing SIC, enhancing the MC system, and reinforcing BO could be investigated to enrich the existing knowledge of the factors driving up a firm's CAD. For empirical contributions, this research presents valuable evidence from a context with relative empirical publications on the antecedent role of ED in nurturing dynamic SIC, MC, and BO as well as their effects (SIC, MC, BO) on CAD. By examining these linkages in a particular context of the retail sector in a typical developing country (Vietnam), some other important research questions are also answered: What are the practical implications are suggested for sustaining the retailer's CAD by enhancing all SIC, multi-channel integration systems, and brand orientation.

The remainder of this paper is organized as follows. Starting with a literature review of the focal constructs, the proposed hypotheses and research model imply that the relationships are displayed. The research methodology is described before reporting and discussing the research results. Section a presentation of the theoretical and empirical implications of this study. Finally, along with the conclusions and research limitations, directions for future research are also presented.

## **2. Literature review**

As mentioned in the Introduction, this study adopts the RBV and DCV as theoretical underpinnings and proposes a conceptual framework based on these grounds. In the context of environmental dynamism, a firm must make its competencies valuable, rare, inimitable, and non-substitutable assets, which enables it to respond quickly to and sustain its CAD (Teece, 2017).

### **2.1. The theory of resource-based view, dynamic capability view, and competitive advantage**

RBV focuses on exploiting core resources that are critical in creating and sustaining a firm's CAD (Barney, 1991). Accordingly, among the various resources and capabilities a firm owns, it must identify the essential resources that meet all the requirements of VRIN, including value, rarity, inimitability, and non-substitutability (Barney, 1991). In other words, a firm's source of sustained CAD is costly to copy and provide added value to customers (Bayighomog Likoum et al., 2020). To gain CAD, a firm's core competencies must be created by effectively combining and exploiting both tangible and intangible resources. Therefore, to survive and develop, firms must focus on nurturing and enhancing these crucial inputs.

Based on the RBV, a DCV can be used to survive and develop in a dynamic environment (Ali et al., 2020; Schilke, 2014; Schilke et al., 2018). Dynamism was mentioned in the study of Teece (2017), which implies changes in the environment. Thus, to survive and maintain CAD, a firm must develop capabilities to quickly and effectively adapt to environmental changes (Teece, 2017). While the RBV focuses on exploiting core competencies to create a firm's CAD, the DCV has improved these capabilities to make them more dynamic in changing environments (Schilke et al., 2018). Thus, enterprises must create and nurture these dynamic capabilities to ensure success in the marketplace.

Among the numerous capabilities owned by an enterprise, innovation plays a crucial role in creating a differentiation advantage (Distanont and Khongmalai, 2018; Grawe et al., 2009; Nishitani and Itoh, 2016). SIC allows service enterprises to offer new and advanced services to customers, thus providing more benefits to them (Wang and Ahmed, 2004; Verhoef et al., 2015). Regarding retail enterprises, stemming from higher customer requirements from the convenience of purchasing (Goraya et al., 2020; Lee et al., 2017) as well as their trust and loyalty in the brand of retailers, multi-channel integration systems and brand orientation activities act as two typical and critical conditions that bring the competitiveness of these businesses (Tagashira and Minami, 2019; Wu and Nguyen, 2019). The MC system focuses on coordinating all channels to provide added value to customers based on seamless shopping experiences across consistent distribution networks of retailers. BO provides guidelines for forming branding strategies that establish valuable brand equity for service firms (Francois Koukpaki et al., 2021). SIC, MC, and BO help service organizations adapt effectively to environmental changes and enhance their competitiveness. Therefore, it is necessary to nurture these capabilities to sustain a firm's CAD in a dynamic environment.

## **2.2. Environmental dynamism**

ED is considered a significant factor leading to the need to quickly recognize and adapt to an organization, especially in the context of a fluctuating environment (Girod and Whittington, 2017). The dynamism may stem from the degree of changes in numerous external factors (Wu and Nguyen, 2019), such as competitive structure among existing rivals, customer preferences and demands, and advanced technologies (Bayighomog Likoum et al., 2020; Li and Liu, 2014; Wilhelm et al., 2015; Wu and Nguyen, 2019). ED can also be identified through the assessment of market instability indicators, such as sales, price-cost margin, employment, technology, and added value (Dess and Beard, 1984).

There are four characteristics of ED: velocity, complexity, ambiguity, and unpredictability (Larrañeta et al., 2014). According to these authors, while velocity refers to the speed at which new opportunities emerge, the three remaining features express the complications, difficulties, and uncertainty faced by a firm when exploiting these chances. Therefore, identifying the mechanisms of a dynamic environment plays a critical role in maintaining firm survival (Girod and Whittington, 2017; Li and Liu, 2014). This is why ED is considered a significant prerequisite for a business to create and nurture its dynamic capability (Do et al., 2022; Wilhelm et al., 2015).

## **2.3. Service innovation capability**

Innovation capability illustrates the level of renewing and advancing a firm's current products, services, and processes (Odoom and Mensah, 2019) by generating new ideas and knowledge (Wu and Nguyen, 2019). Exploiting innovation capabilities enables a firm to create new things that provide more value to its customers (Jeng and Pak, 2016; Skálén et al., 2015). By creating new and advanced products, a firm can respond effectively to changes in its external environment (Phuong et al., 2022;

Williamson, 2016). Innovation also allows firms to find and offer products and services that distinguish them from others and bring about CAD (Distanont and Khongmalai, 2018; Dao Le et al., 2023; Nishitani and Itoh, 2016; Zang and Li, 2017). Innovation capability is the special competence of a firm that is valuable, rare, inimitable, and non-substitutable. Furthermore, it allows a firm to adapt quickly to environmental changes; therefore, innovation capability is considered a firm's dynamic capability (Jeng and Pak, 2016; Williamson, 2016).

In the context of retail service, although SIC play a crucial role in a firm's success (Grawe et al., 2009), little research pays attention to the dynamic capability of service innovation (Wu and Nguyen, 2019). Stemming from the intangible characteristics of services, innovation capability may focus on creating and renewing services that not only meet customer requirements but also add value to them (Jeng and Pak, 2016; Vollmayr and Hahn, 2014). In a dynamic environment, SIC helps firms maintain CAD (Nishitani and Itoh, 2016; Uyen et al., 2022), which, in turn, drives up and improves their performance (Phuong et al., 2022).

#### **2.4. Multi-channel integration**

Multi-channel integration (MC) reflects a firm's capability to consistently combine all types of channels owned by a firm, including traditional and online channels (Goraya et al., 2020). MC promotes interaction among channels (Herhausen et al., 2015) and establishes a consistent channel system that provides buyers with sufficient information about products and services (Li et al., 2018). Creating an effective MC system can provide seamless shopping experience for customers, leading to improved performance (Cao and Li, 2015).

Cao and Li (2015) and Frassetto et al. (2018) examined MC based on a dynamic environment and explored how MC helps firms adapt to changing factors and creates more value for customers by offering the convenience of purchasing. One of the most important requirements for maintaining MC is the consistency of information and products/services offered in all channels (Goraya et al., 2020). In addition, operating an effective MC system allows a firm to quickly gather information about customer behavior, which is a crucial source for adjusting business strategies to satisfy customer demands and create advantages over rivals (Zhang et al., 2018). If a firm has a flexible MC system, it can adapt quickly to new market conditions (Cao and Li, 2015).

#### **2.5. Brand orientation**

The term brand has attracted many researchers to explore its nature and role in business success. BO is considered a "share sense of brand meaning," it enables a firm to bring more added value to its customers (Balmer and Podnar, 2021) and other stakeholders and consequently, attain CAD and ensure success in the marketplace (Gupta et al., 2020; Piha et al., 2021; Rua and Santos, 2022). BO forms a cultural mindset in an organization to identify the crucial role that requires a firm to put it in the key position of strategy (Bayighomog Likoum et al., 2020; Francois Koukpaki et al., 2021; Iyer et al., 2019). Therefore, BO is a critical tool for gaining strong brand equity and achieving competitiveness (Huang and Tsai, 2013). Because BO focuses on enhancing awareness of the importance of orientating the brand within an

organizational strategy (Bayighomog Likoum et al., 2020; Francois Koukpaki et al., 2021; Iyer et al., 2019), it needs to be presented in a long-term strategic direction, such as vision, mission, prioritized value, and organizational culture (Piha et al., 2021). Huang and Tsai (2013) also suggest that when a firm perceives a clearer and higher BO, it can achieve superior brand performance (Lee et al., 2017) by improving brand trust, loyalty, awareness, and reputation. Hence, to achieve effective BO, a firm must focus on performing both internal and external branding processes as well as (Huang and Tsai, 2013) taking opportunities from the marketplace (Gupta et al., 2020). Consequently, establishing a higher perception of BO allows a firm to build a good brand image and equity (Huang and Tsai, 2013), create its CAD (Baumgarth and Schmidt, 2010), and bring about success (Huang and Tsai, 2013).

Branding creates an opportunity for retailers to be distinctive by creating a unique symbol for legal and ethical purposes. Furthermore, each firm has a strategy to build and develop its brand recognition, which differs from other (Balmer and Podnar, 2021). A brand is an intangible asset that enables retailers to attract and lure customers by improving their trust and loyalty (Lee et al., 2017). As a result, firm performance is enhanced and CAD is sustained (Brodie et al., 2017; Balmer and Podnar, 2021; Gupta et al., 2020). A brand is legally protected, and cannot be imitated or substituted (Huang and Tsai, 2013). As BO meets all the requirements of VRIN, including value, rarity, inimitability, and non-substitutability, it becomes a critical capability that can create and maintain a retailer's CAD.

### **3. Proposed research hypotheses and model**

#### **3.1. The impact of ED on SIC, MC, and BO**

The mechanism of environmental fluctuation is a critical condition that strongly affects the creation and development of dynamic capabilities (Teece, 2017). External changes in the industrial structure, competitor behaviors, customer preferences, and technologies are reflective of ED (Li and Liu, 2014; Wilhelm et al., 2015). Although ED have different roles, various studies agree on their importance in the development of dynamic capabilities (Bayighomog Likoum et al., 2020; Do et al., 2022; Girod and Whittington, 2017). Accordingly, environmental pressure forces businesses to constantly change and adapt to maintain their competitiveness and performance (Fainshmidt et al., 2019; Makkonen et al., 2014; Schilke, 2014). Associated with the three competencies that are considered retailers' dynamic capabilities (SIC, MC, BO), the research hypotheses about the role of ED are as follows:

H1: ED has a positive effect on the SIC of retail firms.

H2: ED has a positive effect on the MC of retail firms.

H3: ED has a positive effect on the BO of retail firms.

#### **3.2. The impact of SIC on MC and BO**

SIC focuses on renewing current services and creating new ones for enterprises, which may lead to new offerings for customers such as advanced distribution channels (Cao and Li, 2018) and new brand identity (Flikkema et al., 2019; Paswan et al., 2020).

Regarding the MC system, previous studies have explored the significant role of

SIC in diversifying and integrating retail channels, allowing retailers to satisfy consumers' needs (Lin, 2019). These authors also agree that it is easier to develop an MC model if a firm obtains higher SIC. Du et al. (2018) supposed that firms should apply informative technologies and the Internet to distribution activities, because they allow firms to improve their business performance and obtain CAD. Because all these arguments support the favorable relationship between SIC and MC, the following hypothesis is proposed.

H4: SIC has a positive effect on the MC of retail firms.

In terms of the relationship between SIC and BO, previous studies have shown the significant role of service innovation in branding in general (Flikkema et al., 2019), and in promoting BO in particular (Huang and Tsai, 2013; Odoom and Mensah, 2019). Accordingly, if a firm has effective innovation capability, it can become a proactive organization that allows it to identify and build a clear and transparent branding orientation, which, in turn, drives a strong brand for the enterprise (Paswan et al., 2020). Previous studies agree that SIC can positively influence BO. In the context of retail firms, the hypothesis for the relationship between SIC and BO is as follows.

H5: SIC has a positive effect on the BO of retail firms.

### **3.3. The impact of SIC, MC, and BO on CAD**

Previous studies have provided abundant evidence on the critical role of dynamic capabilities in sustaining a firm's CAD. Because this study examines dynamic capabilities through the lens of dynamic SIC, MC, and BO, their relationship to CAD can be seen as follows:

Regarding the relationship between SIC and CAD, when considering SIC as one of the components of innovation capability, prior studies have emphasized its role in creating new and advanced products, services, and processes that lead to driving up a firm's CAD (Grawe et al., 2009; Wang and Ahmed, 2004; Verhoef et al., 2015). In the specific context of service organizations such as retail businesses, Grawe et al. (2009) and Wu and Nguyen (2019) suppose that SIC focuses on offering new and innovative retail services that significantly contribute to maintaining a firm's competitiveness. Grawe et al. (2009) also show that creating new and renewing existing services helps retail businesses add value to customers, which, in turn, reinforces their CAD. These arguments support the positive relationship between SIC and CAD. Hence, this relationship is hypothesized as follows:

H6: SIC has a positive effect on the CAD of retail firms.

Regarding the relationship between MC and CAD, prior studies on channel integration have suggested a significant impact on maintaining a firm's CAD (Zhang et al., 2018). A multi-consistent channel system can bring convenience to customers in finding information about products and services, as well as in making a purchase (Goraya et al., 2020). Additionally, MC allows customers to choose any distribution channel they want to buy and receive, helping them significantly reduce their costs and sacrifice (Tagashira and Minami, 2019). Integration multi-channel offers a seamless shopping experience to customers that allows a business to differentiate itself from its rivals, thereby creating and sustaining CAD. Previous studies agree with the view of a positive impact of MC on CAD. Thus, the research hypotheses regarding

this relationship are as follows.

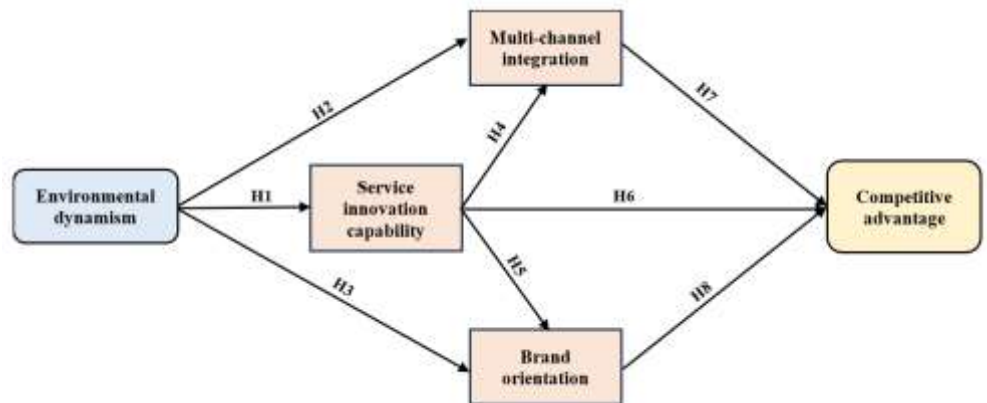
H7: MC has a positive effect on the CAD of retail firms.

For the linkage between BO and CAD, acting as a guiding factor for building brand equity, many studies have revealed an important role in creating the CAD of BO (Lee et al., 2017; Odoom and Mensah, 2019; Rua and Santos, 2022). Although the impact mechanism of BO on CAD has been debated (directly or indirectly), previous studies have suggested a positive relationship between them. Effective brand orientation clarifies the guidelines for building a BE (Odoom and Mensah, 2019). By clearly defining BO in terms of vision, mission, and strategic objectives, a firm will recognize the importance of developing brand assets, contributing to maintaining CAD over its competitors (Huang and Tsai, 2013). BO not only creates brand equity that meets market requirements but also establishes internal directions for sustainable branding (Lee et al., 2017). In this study, BO was viewed as a strategic direction for building valuable and unique brands for retailers. Therefore, it is expected to directly and positively affect a retailer’s CAD. Therefore, the research hypotheses are as follows:

H8: BO has a positive effect on the CAD of retail firms.

### 3.4. Research model

Based on the proposed hypotheses, a research model that implies linkages among the ED, SIC, MC, BO, and CAD of retail firms were established as follows (**Figure 1**):



**Figure 1.** Proposed research model.

## 4. Research methodology

### 4.1. Question design

The questionnaire was designed based on the related literature. Besides the questions gathering background information (the features of the retail firm and the personal information of the respondent), all remaining items were assessed via a five-point Likert scale from “1 = Strongly disagree” to “5 = Strongly agree”. To ensure the meaning of all the variables, back-translation was used. Next, a pre-test was conducted by interviewing 15 experts in the retail industry regarding the structure of the questionnaire and meaning of the items. Subsequently, a pilot test was conducted with



25 respondents. Finally, a questionnaire was designed and prepared for the survey. For ED, the measure was adopted from Dess and Beard (1984) and Li and Liu (2014) with four items coded from ED1 to ED4. SIC, including five items (SIC1–SIC5), was adopted from Wang and Ahmed (2004) and Grawe et al. (2009). The MC measure was based on Goraya et al. (2020) and was coded from MC1 to MC5. Five items that reflect BO were adopted from a previous study Huang and Tsai (2013). The CAD measure included six items that were adopted in the from Schilke (2014). **Table 1** shows the full items of all variables in the model.

#### **4.2. Sample, data collection, and analytical method**

To collect the data, surveys were conducted using an offline questionnaire. We distributed the questionnaire to middle and senior managers of retail firms in Vietnam, who had experience in the position for a year or more. These retail enterprises include supermarkets, convenience stores, bookstores, fashion stores, and other specialist stores. Wu and Nguyen (2019) believe that the retail industry will show clear evidence of service innovation and the integration function because of the close linkage between consumers and the marketplace. Therefore, the retail sector is appropriate for this study. Retailers were recruited from the annual retail reports of the Association of Vietnam Retailers (AVR). The survey lasted 6 months, starting in October 2022 and ending in March 2023. In total, 357 responses were obtained. After removing invalid answers, the final number of qualified responses was 304, accounting for 85.15% of the total votes collected. **Table 1** shows the profiles of respondents and retail firms. For firm age, more than half of the retailers participating in the survey were established and operated for five or more years. Retailers with fewer than 300 employees account for 76.0% of the firm’s size. For the retail category, while the figure for apparel retailers was the largest, accounting for 30.6% of the surveyed enterprises, the smallest was for home furniture and furnishing retailers (3.5%).

**Table 1.** Characteristics of the sample.

<b>Characteristics</b>	<b>Frequency</b>	<b>Percent</b>
Age of firm		
3–5 years	102	33.5
5–10 years	113	37.2
10 years and above	89	29.3
<b>Total</b>	<b>304</b>	<b>100.0</b>
Size of firm		
10–49 employees	109	35.9
50–299 employees	122	40.1
300 employees and above	73	24.0
<b>Total</b>	<b>304</b>	<b>100.0</b>
Retail category		
Food retailers	72	23.7
Apparel retailers	93	30.6
Home furniture and furnishing retailers	12	3.9

**Table 1.** (Continued).

<b>Characteristics</b>	<b>Frequency</b>	<b>Percent</b>
Electrical retailers	33	10.9
Department stores	29	9.5
Other specialist stores	65	21.4
<b>Total</b>	<b>304</b>	<b>100.0</b>
Position of respondent		
CEOs	134	44.1
Deputy CEOs	108	35.5
Dept. head or equivalent position	62	20.4
<b>Total</b>	<b>304</b>	<b>100.0</b>
Experience of respondent		
1–3 years	101	33.2
3–5 years	119	39.1
5 years and above	84	27.6
<b>Total</b>	<b>304</b>	<b>100.0</b>

Regarding the profile of respondents, CEOs and Deputy CEOs who participated in the survey contributed approximately 80%. Two-thirds of the respondents had at least three years of experience.

To examine the research hypotheses and model, this study adopted the analytical technique of partial least squares structural equation modeling (PLS-SEM) using Smart-PLS4 software to analyze the data collected. According to Hair et al. (2017), the analysis process includes two stages: examining the measurement model (outer model), and assessing the structural model (inner model).

## **5. Results and discussion**

### **5.1. The measurement model**

To assess the outer model, we investigated (1) its construct reliability, (2) convergent validity, and (3) discriminant validity (Hair et al., 2017). Accordingly, to meet the requirements of construct reliability, the ratio of Cronbach’s Alpha and Composite reliability (CR) of all constructs must be higher than 0.7 for each criterion. All the variables in the research model are reflective constructs, thus Convergent validity is tested by the outer loading scores of observation variables, and the total variance extracted (AVE) of all constructs, which must be at least 0.7 and 0.5, respectively (Hair et al., 2017). **Table 2** illustrates that all items and constructs meet the requirements of construct reliability and convergent validity, while **Table 2** shows the results of the discriminant validity assessment.

**Table 2.** Assessment of the construct reliability and convergent validity.

Code	Items and constructs	Outer loading	Cronbach's Alpha	Rho_A	CR	AVE
<b>ED</b>	<b>Environmental dynamism</b>		0.875	0.877	0.914	0.728
ED 1	Products or services in this industry update quickly	0.866				
ED 2	The acts of competitors are difficult to predict	0.856				
ED 3	The technology in this industry progresses quickly	0.841				
ED 4	To predict the change in customer needs is difficult	0.849				
<b>SIC</b>	<b>Service innovation capability</b>		0.858	0.862	0.898	0.637
SIC 1	Innovation is readily accepted in program/project management	0.823				
SIC 2	Top management gives special emphasis to service innovation	0.749				
SIC 3	Constantly seeks new ways to better service our customers	0.784				
SIC 4	Able to change/modify our current service approaches to meet the special requirements of customers	0.848				
SIC 5	Able to come up with new service offerings in comparison to competitors	0.784				
<b>MC</b>	<b>Multi-channel integration</b>		0.894	0.895	0.922	0.702
MC 1	Allows consumers to search for products available in the physical store	0.862				
MC 2	Allows consumers to choose any physical store from which to pick up their online purchases	0.832				
MC 3	Product/ service descriptions are consistent in both the physical store and website	0.849				
MC 4	Product/service category classifications are consistent in both the physical store and website	0.812				
MC 5	Product/service prices are consistent in both the physical store and website	0.834				
<b>BO</b>	<b>Brand orientation</b>		0.859	0.860	0.899	0.641
BO 1	Brand is the core of the company's mission and strategic development	0.760				
BO 2	The company's objective is to create competitive advantage through brands	0.832				
BO 3	All members of the company have knowledge of the company's positioning and value and apply the knowledge to their work	0.830				
BO 4	All company members are aware that the brand differentiates them from their competitors	0.786				
BO 5	The company integrates various communication channels, conveys information about company brand positioning and value to customers, and establishes added value for the brand	0.793				
<b>CAD</b>	<b>Competitive advantage</b>		0.901	0.901	0.924	0.669
CAD 1	Have gained strategic advantages over our competitors	0.752				
CAD 2	Have a large market share	0.813				
CAD 3	Overall, more successful than our major competitors	0.857				
CAD 4	The EBT (earnings before interest and taxes) is continuously above the industry average.	0.839				
CAD 5	The ROI (return on investment) is continuously above the industry average	0.824				
CAD 6	The ROS (return on sales) is continuously above the industry average	0.820				

Next, we examined discriminant validity using the heterotrait-monotrait (HTMT) ratio. According to Henseler et al. (2015), the HTMT score for each construct pair should be lower than 0.90. The results of the HTMT index provided in **Table 3** show

that all pairs of constructs are much lower than 0.90, ranging from 0.596 to 0.857, satisfying the requirements of discriminant validity.

**Table 3.** HTMT index.

	ED	SIC	MC	BO	CAD
ED	-	-	-	-	-
SIC	0.639	-	-	-	-
MC	0.591	0.641	-	-	-
BO	0.857	0.622	0.691	-	-
CAD	0.596	0.739	0.814	0.722	-

### 5.2. The structural model

To examine the structural model, it was necessary to check for multicollinearity using the VIF scores first (should be lower than 5 (Hair et al., 2017)). In this study, the results of the VIF ranging [1.000 to 1.810] indicated that the model had no multicollinearity. We then investigate our hypotheses. Because the study focused on examining direct effects, the one-tailed method was chosen to investigate direct impacts. The path coefficient must be checked and the p-value, t-value, and confidence interval must be bias-corrected (Hair et al., 2017). The results for the inner model are presented in **Table 4** and **Figure 2**. All eight hypotheses are supported by this study.

**Table 4.** The results of testing hypotheses.

Hypotheses	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T statistics ( O/STDEV )	P-values	f <sup>2</sup>	CI		Results
							5.00%	95.00%	
H1: ED → SIC	0.557	0.558	0.051	10.911	0.000	0.451	0.465	0.635	Supported
H2: ED → MC	0.301	0.301	0.065	4.609	0.000	0.102	0.194	0.408	Supported
H3: ED → BO	0.646	0.647	0.060	10.794	0.000	0.684	0.532	0.732	Supported
H4: SIC → MC	0.400	0.400	0.062	6.464	0.000	0.180	0.293	0.495	Supported
H5: SIC → BO	0.180	0.179	0.058	3.093	0.001	0.053	0.087	0.279	Supported
H6: SIC → CAD	0.289	0.288	0.051	5.651	0.000	0.146	0.203	0.372	Supported
H7: MC → CAD	0.435	0.434	0.059	7.397	0.000	0.297	0.341	0.531	Supported
H8: BO → CAD	0.219	0.220	0.055	3.989	0.000	0.078	0.123	0.304	Supported

Note: ED: Environmental dynamism; SIC: Service innovation capability; MC: Multi-channel integration; BO: Brand orientation; CAD: Competitive advantage.

Moving to the details, the results expressed the significantly antecedent role of perceived ED in promoting retailers to nurture SIC, MC, and BO (H1, H2, H3) are fully displayed in **Figure 3**. These findings illustrate that the clearer the perception of environmental changes, the more necessary it is to strengthen SIC, MC, and BO because they help businesses adapt effectively to these changes. Specifically, the dynamic environment strongly promotes retailers' service innovativeness (H1: Beta = 0.557, P-value = 0.000, T-value = 10.911, f<sup>2</sup> = 0.451). Furthermore, awareness of external changes, including industrial structure, competitor actions, technologies, and customer preferences, positively affects the proactiveness of businesses by expanding

and integrating multi-distribution channels (H2: Beta = 0.301,  $P$ -value = 0.000,  $T$ -value = 4.609,  $f^2$  = 0.102). For brand orientation, environmental changes forced businesses to form brand strategies by identifying BO in their long-term objectives (H3: Beta = 0.646,  $P$ -value = 0.000,  $T$ -value = 10.794,  $f^2$  = 0.684).

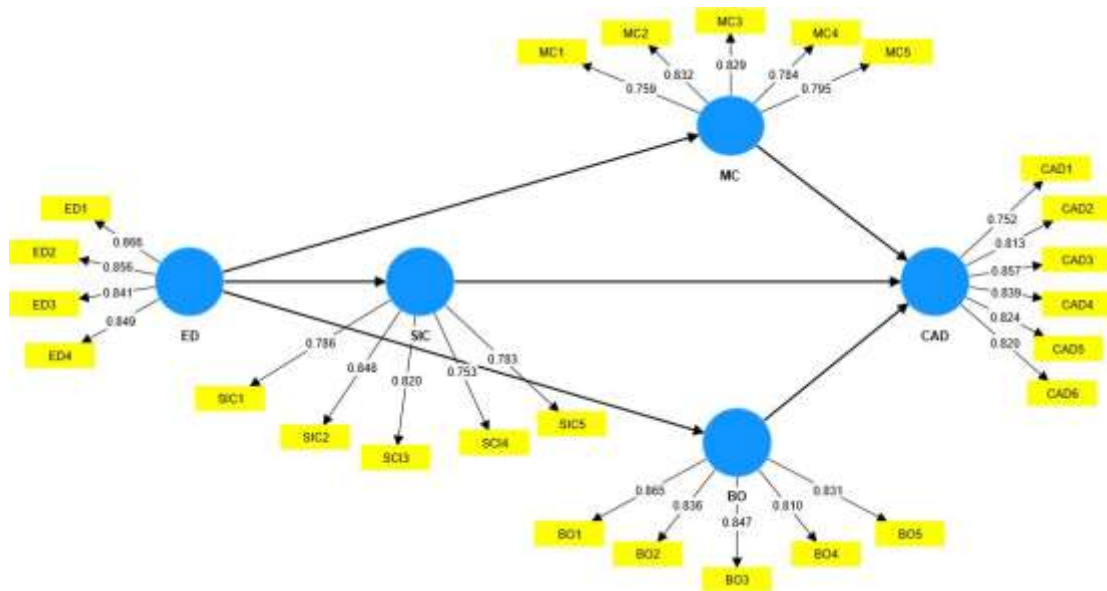


Figure 2. Assessment results of the measurement model.

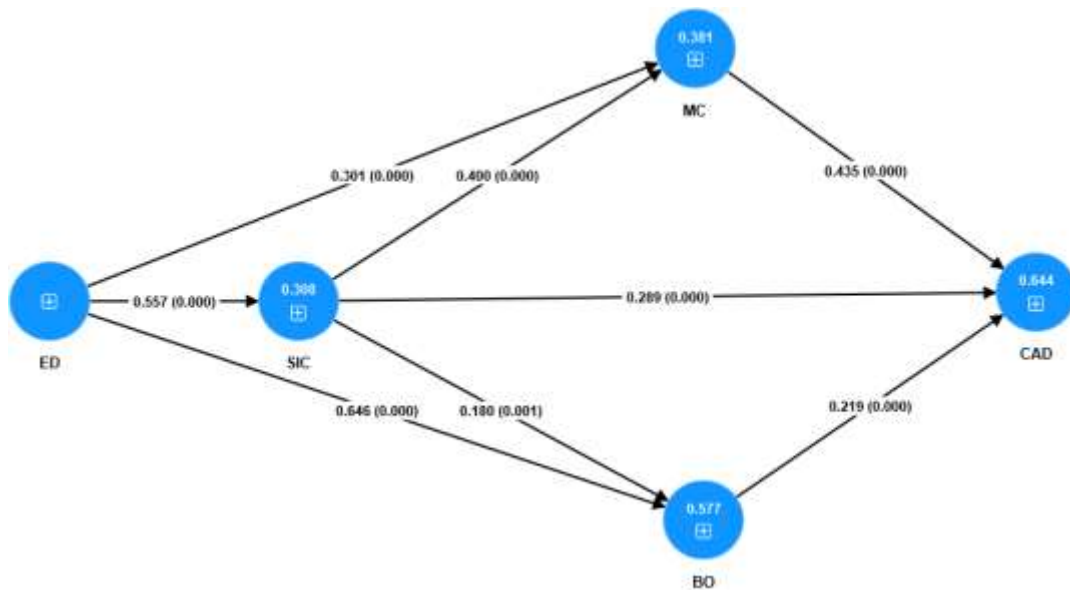


Figure 3. Assessment results of the structural model.

The results illustrate that SIC plays an antecedent role in improving both MC and BO in terms of the linkages between SIC, MC, and BO (H4, H5). SIC not only focuses on creating and renewing services/offerings but also shows effective ways to build brands. The findings show a remarkably positive effect of SIC on BO (H4: Beta = 0.400,  $P$ -value = 0.000,  $T$ -value = 6.464,  $f^2$  = 0.180). When a firm obtains proactiveness and continuous advancement, it becomes a dynamic organization; thereby, it is willing to develop its brand equity by establishing a brand orientation appropriate to its business strategies. Regarding the relationship between SIC and MC,

finding new and advanced services/offerings enables a retailer to build consistent channels that provide seamless shopping experiences for customers (H5: Beta = 0.180,  $P$ -value = 0.001,  $T$ -value = 3.093,  $f^2$  = 0.053). Integrating multiple channels is only effective when retailers expand their distribution networks by diversifying advanced channels that can meet customer demands.

Regarding the relationship of SIC, MC, and BO with CAD (H6, H7, H8), the results show the significant role of SIC, MC, and BO in driving up a retailer's CAD. First, the finding illustrates that SIC strongly improves a retailer's CAD (H6: Beta = 0.289,  $P$ -value = 0.000,  $T$ -value = 5.651,  $f^2$  = 0.146). Effective SIC contributes to offering new and advanced services that help firms become pioneers in their industry and create significant advantages over competitors. Second, MC is important for sustaining a firm's CAD (H7: Beta = 0.435,  $P$ -value = 0.000,  $T$ -value = 7.397,  $f^2$  = 0.297). Establishing an effective and consistent distribution network, on the one hand, allows consumers to easily find the information they want and make purchasing decisions at any channel that is the most convenient for them. On the other hand, MC also contributes to connecting all retailers' channels to bring about continuous shopping experiences that may receive positive feedback from buyers as well as improve their satisfaction, which in turn reinforces a firm's CAD. Finally, by identifying a clear BO, a firm remarkably promotes CAD (H8: Beta = 0.219,  $P$ -value = 0.000,  $T$ -value = 3.989,  $f^2$  = 0.078). Formally orienting branding strategies allows a firm to build and maintain a strong brand identity that is unique and valuable, thereby creating its CAD.

### **5.3. Discussion and implications**

By conducting an empirical study, the research findings provide an important empirical study and significant guidelines for retail development through valuable evidence of the significant linkages among environmental dynamism, service innovation capability, multi-channel integration, brand orientation, and the competitive advantages of retail firms. The study has filled the significant gap in exploring ED as a critical premise for businesses to develop dynamic capabilities in order to adapt to environmental changes and enhance a firm's competitive advantage (Teece, 2017). Hence, the findings provide the significant implications for retail development with a deep and broad understanding of the important role of developing the dynamic capabilities as response to adapt environmental dynamism as well as the positive effects of these competencies on creating and sustaining the firm's CAD.

First, this novel approach and findings provide important evidence and implication for adopting RBV and DCV in sustaining distinctive competency of dynamic capability to sustain competitive advantage. While most previous studies ignore this important approach and mostly considered ED as a moderator influencing the relationship between dynamic capabilities and CAD with inconsistent finding of moderating role has been argued (positive/negative/non-influence/strong influence). This study reveals the crucial role of perceiving environmental changes in promoting SIC, MC, and BO enhancement. The results pointed out the significant role of ED in the relationship with the dynamic SIC, MC, and BO of a firm. By identifying external fluctuations, a firm becomes more dynamic and willing to quickly adapt to these

changes by improving its service innovation capability, multi-channel system, and brand orientation. These research findings, on the one hand, enrich the theoretical basis for the importance of ED awareness from the previous research by Wilhelm et al. (2015), Girod and Whittington (2017), Wu and Nguyen (2019), Do et al. (2022), on the other hand, provides reliable evidence of its antecedent role in promoting the development of SIC, MC, and BO of a retail firm. Accordingly, when a retailer operates under high levels of ED, the capacity for flexible adaptation can be expressed through innovation, multi-channel integration, and brand orientation, which allows it to meet new market requirements and take effective advantage of new technologies. These factors contribute to differentiation among competitors and are the premise for creating and sustaining a firm's CAD.

Second, the research findings provide valuable evidence and implication of SIC's positive impact on establishing multi-channel integration and brand orientation. By applying new and advanced technologies for services and offerings, a retailer can successfully operate a consistent distribution network and identify priorities and directions for branding. These findings are consistent with those of prior studies on multi-channel integration (Du et al., 2018; Zang and Li, 2017) and brand orientation (Flikkema et al., 2019; Likoum et al., 2020; Odoom and Mensah, 2019; Paswan et al., 2021). Additionally, the findings extend our knowledge of the favorable impact of SIC on MC and BO.

Third, the research findings strengthen the importance of enhancing dynamic SIC, MC, and BO to adapt to environmental changes and drive a firm's CAD. For SIC, the results show that, by creating advanced services and offerings, a retailer can provide more value to its consumers, driving up its CAD ( $f^2 = 0.146$ ). This finding is consistent with those of previous studies on the topic by Grawe et al. (2009); Nishitani and Itoh (2016); Odoom (2016); Wu and Nguyen (2019). Additionally, the results indicate the significant role of multi-channel integration in enhancing a retailer's CAD ( $f^2 = 0.297$ ), implying that coordinating retail channels to create a consistent distribution network helps a retailer satisfy its customers and create a significant advantage over its competitors. This finding strongly reinforces the view of the positive impact of MC on CAD, as suggested by Cao and Li (2015), Frassetto et al. (2018), Zhang et al. (2018), and Tagashira and Minami (2019). Finally, the results provide reliable evidence for the favorable relationship between BO and CAD of a retailer ( $f^2 = 0.078$ ), which has been suggested in previous studies (Gupta et al., 2020; Huang and Tsai, 2013; Rua and Santos, 2022). While studies by Lee et al. (2017), Odoom and Mensah (2019), and Rua and Santos (2022) support the view of the indirect effect of BO on CAD, this finding has explored its direct role in sustaining a retailer's CAD, indicating that a sustainable CAD can be created by establishing a valuable brand asset with a clear brand orientation. This finding has enriched knowledge about brand equity in general and the effect of brand orientation on a firm's CAD, thus providing guidelines for building a firm's successful brands.

Finally, for business practitioners, this study highlights the importance of recognizing environmental changes and provides valuable evidence for retailers in Vietnam in particular and in other developing countries in general to strengthen their dynamic capabilities, including service innovation capabilities, multi-channel integration, and brand orientation for sustaining their competitive advantages.

In a dynamic environment, it is vital for managers to regularly review and identify fluctuations in the market and technology in order to proactively change and adapt. In addition, managers should establish an alert control system that allows them to capture new business trends and recognize new changes in customer preferences. By fully identifying market dynamism, retailers can determine directions for nurturing their dynamic capabilities, which will provide added value to customers.

For innovative service capability, managers should research new methods based on the information technology applications in their management fields, such as operation management, warehouse management, supply chain management, human resource management, and financial management. This application not only facilitates the management of the whole organization but also significantly reduces operational costs, which enables firms to obtain a competitive advantage. Additionally, we strongly recommend that Vietnamese retail firms extend their retail services by launching e-retail channels and other modern channels, because they can respond effectively to significantly changing customer behavior in recent years. In particular, after the COVID-19 pandemic, many consumers have had tendencies to prefer online shopping to traditional channels. Additionally, attention should be paid to facilitating support services, both before and after purchasing. Consulting groups should be established to provide customers with sufficient information for their purchasing decisions. Additionally, Vietnamese retail enterprises should provide new and convenient payment and delivery methods for their clients, which significantly influences their purchase decisions.

In addition to expanding distribution channels, integrating channels need to be given much attention because it enables retail firms to create convenient retail services. Accordingly, both pre- and after-sales services must be offered consistently in the entire channel network, allowing consumers to easily find product/service information, make orders and payments, and receive purchased commodities anytime and anywhere they want. Additionally, retailer managers should consider applying new and advanced retail channels by coordinating with other service provider methods, such as ordering and paying directly to customers' mobile banking apps. These innovative distribution channels not only provide seamless and convenient shopping experiences for consumers but also enhance the close relationship between a retailer and its partners.

Furthermore, it is necessary to establish brand orientation as it provides retailers with guidelines for creating effective branding strategies. Brand orientation should be clearly expressed in the retail firms' long-term directions. This helps managers create sustainable brand equity and improve a firm's reputation, which can lead to business differentiation.

## **6. Conclusion, limitations, and future research**

Based on a novel approach of the underlying theories of the RBV and DCV, this study examined the linkages among the perceived ED, SIC, MC, BO, and CAD of businesses. Through an empirical study, the research findings illustrate the direct and significant impact of SIC, MC, and BO on sustaining retailers' CAD. In addition, the findings express the antecedent role of SIC in enhancing both retailers' MC and BO.



Additionally, the research shows the remarkable role of perceived environmental dynamism in directly fostering the development of retailers' SIC, MC, and BO. Therefore, study provides valuable evidence to fill up the significant gaps in the current literature and it also generates many significant implications for business practitioners in sustaining competitive advantage as well enhancement the retail development.

Nevertheless, this study has some limitations, which provide directions and guidelines for further research. First, although this research has exploited the influences of SIC, MC, and BO in maintaining a firm's CAD, CAD may be created using various resources and capabilities from different functional departments. Future research can investigate this through the lens of retailers' functional parts. Moreover, this experimental study was conducted in a relatively small context in Vietnamese retail firms, which may lead to difficulties in transferring to other situations. Further research can explore these linkages using a broader sample with greater variation in firm, industry, or country.

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## References

- Ali, G. A., Hilman, H., & Gorondutse, A. H. (2020). Effect of entrepreneurial orientation, market orientation and total quality management on performance. *Benchmarking: An International Journal*, 27(4), 1503–1531. <https://doi.org/10.1108/bij-08-2019-0391>
- Balmer, J. M. T., & Podnar, K. (2021). Corporate brand orientation: Identity, internal images, and corporate identification matters. *Journal of Business Research*, 134, 729–737. <https://doi.org/10.1016/j.jbusres.2021.06.016>
- Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, 17(1), 99–120. <https://doi.org/10.1177/014920639101700108>
- Bayighomog Likoum, S. W., Shamout, M. D., Harazneh, I., et al. (2018). Market-Sensing Capability, Innovativeness, Brand Management Systems, Market Dynamism, Competitive Intensity, and Performance: An Integrative Review. *Journal of the Knowledge Economy*, 11(2), 593–613. <https://doi.org/10.1007/s13132-018-0561-x>
- Brodie, R. J., Benson-Rea, M., & Medlin, C. J. (2017). Branding as a dynamic capability. *Marketing Theory*, 17(2), 183–199. <https://doi.org/10.1177/1470593116679871>
- Cao, L., & Li, L. (2015). The Impact of Cross-Channel Integration on Retailers' Sales Growth. *Journal of Retailing*, 91(2), 198–216. <https://doi.org/10.1016/j.jretai.2014.12.005>
- Cao, L., & Li, L. (2018). Determinants of Retailers' Cross-channel Integration: An Innovation Diffusion Perspective on Omni-channel Retailing. *Journal of Interactive Marketing*, 44, 1–16. <https://doi.org/10.1016/j.intmar.2018.04.003>
- Dao Le, D., Van, M. H., Uyen, N. T., et al. (2023). The effect of strategy innovation and functional level innovation on sustainable competitive advantage. *Universidad y Sociedad*, 15(2), 228–235.
- Dess, G. G., & Beard, D. W. (1984). Dimensions of Organizational Task Environments. *Administrative Science Quarterly*, 29(1),

52. <https://doi.org/10.2307/2393080>
- Distanont, A., & Khongmalai, O. (2018). The role of innovation in creating a competitive advantage. *Kasetsart Journal of Social Sciences*. <https://doi.org/10.1016/j.kjss.2018.07.009>
- Do, H., Budhwar, P., Shipton, H., et al. (2022). Building organizational resilience, innovation through resource-based management initiatives, organizational learning and environmental dynamism. *Journal of Business Research*, 141, 808–821. <https://doi.org/10.1016/j.jbusres.2021.11.090>
- Fainshmidt, S., Wenger, L., Pezeshkan, A., et al. (2019). When do Dynamic Capabilities Lead to Competitive Advantage? The Importance of Strategic Fit. *Journal of Management Studies*, 56(4), 758–787. <https://doi.org/10.1111/joms.12415>
- Flikkema, M., Castaldi, C., de Man, A.-P., et al. (2019). Trademarks' relatedness to product and service innovation: A branding strategy approach. *Research Policy*, 48(6), 1340–1353. <https://doi.org/10.1016/j.respol.2019.01.018>
- Francois Koukpaki, A. S., Adams, K., & Oyedijo, A. (2021). The contribution of human resource development managers to organisational branding in the hotel industry in India and South East Asia (ISEA): a dynamic capabilities perspective. *Employee Relations: The International Journal*, 43(1), 131–153. <https://doi.org/10.1108/er-09-2019-0375>
- Frasquet, M., Dawson, J., Calderón, H., et al. (2018). Integrating embeddedness with dynamic capabilities in the internationalisation of fashion retailers. *International Business Review*, 27(4), 904–914. <https://doi.org/10.1016/j.ibusrev.2018.02.002>
- Girod, S. J. G., & Whittington, R. (2017). Reconfiguration, restructuring and firm performance: Dynamic capabilities and environmental dynamism. *Strategic Management Journal*, 38(5), 1121–1133. <https://doi.org/10.1002/smj.2543>
- Goraya, M. A. S., Zhu, J., Akram, M. S., et al. (2020). The impact of channel integration on consumers' channel preferences: Do showrooming and webrooming behaviors matter? *Journal of Retailing and Consumer Services*, 65, 102130. <https://doi.org/10.1016/j.jretconser.2020.102130>
- Grawe, S. J., Chen, H., & Daugherty, P. J. (2009). The relationship between strategic orientation, service innovation, and performance. *International Journal of Physical Distribution & Logistics Management*, 39(4), 282–300. <https://doi.org/10.1108/09600030910962249>
- Gupta, S., Gallear, D., Rudd, J., et al. (2020). The impact of brand value on brand competitiveness. *Journal of Business Research*, 112, 210–222. <https://doi.org/10.1016/j.jbusres.2020.02.033>
- Hair, J. F., Hult, G. T. M., Ringle, C. M., et al. (2017). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. Thousand Oaks, Sage.
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115–135. <https://doi.org/10.1007/s11747-014-0403-8>
- Herhausen, D., Binder, J., Schoegel, M., et al. (2015). Integrating Bricks with Clicks: Retailer-Level and Channel-Level Outcomes of Online–Offline Channel Integration. *Journal of Retailing*, 91(2), 309–325. <https://doi.org/10.1016/j.jretai.2014.12.009>
- Huang, Y. T., & Tsai, Y. T. (2013). Antecedents and consequences of brand-oriented companies. *European Journal of Marketing*, 47(11/12), 2020–2041. <https://doi.org/10.1108/ejm-07-2011-0371>
- Iyer, P., Davari, A., Zolfagharian, M., et al. (2019). Market orientation, positioning strategy and brand performance. *Industrial Marketing Management*, 81, 16–29. <https://doi.org/10.1016/j.indmarman.2018.11.004>
- Jeng, D. J.-F., & Pak, A. (2016). The variable effects of dynamic capability by firm size: the interaction of innovation and marketing capabilities in competitive industries. *International Entrepreneurship and Management Journal*, 12(1), 115–130. <https://doi.org/10.1007/s11365-014-0330-7>
- Larrañeta, B., Zahra, S. A., & Galán González, J. L. (2014). Strategic repertoire variety and new venture growth: The moderating effects of origin and industry dynamism. *Strategic Management Journal*, 35(5), 761–772. <https://doi.org/10.1002/smj.2103>
- Lee, W. J. (Thomas), O' Cass, A., & Sok, P. (2017). Unpacking brand management superiority. *European Journal of Marketing*, 51(1), 177–199. <https://doi.org/10.1108/ejm-09-2015-0698>
- Li, D., & Liu, J. (2014). Dynamic capabilities, environmental dynamism, and competitive advantage: Evidence from China. *Journal of Business Research*, 67(1), 2793–2799. <https://doi.org/10.1016/j.jbusres.2012.08.007>
- Li, Y., Liu, H., Lim, E. T. K., et al. (2018). Customer's reaction to cross-channel integration in omnichannel retailing: The mediating roles of retailer uncertainty, identity attractiveness, and switching costs. *Decision Support Systems*, 109, 50–60. <https://doi.org/10.1016/j.dss.2017.12.010>

- Lin, C. (2019). How does perceived retail service innovativeness affect retail patronage intentions? *Creativity and Innovation Management*, 28(4), 519–532. <https://doi.org/10.1111/caim.12333>
- Makkonen, H., Pohjola, M., Olkkonen, R., et al. (2014). Dynamic capabilities and firm performance in a financial crisis. *Journal of Business Research*, 67(1), 2707–2719. <https://doi.org/10.1016/j.jbusres.2013.03.020>
- Nishitani, K., & Itoh, M. (2016). Product innovation in response to environmental standards and competitive advantage: a hedonic analysis of refrigerators in the Japanese retail market. *Journal of Cleaner Production*, 113, 873–883. <https://doi.org/10.1016/j.jclepro.2015.11.032>
- Odoom, R. (2016). Brand-building efforts in high and low performing small and medium-sized enterprises (SMEs). *Journal of Small Business and Enterprise Development*, 23(4), 1229–1246. <https://doi.org/10.1108/jsbed-05-2016-0067>
- Odoom, R., & Mensah, P. (2019). Brand orientation and brand performance in SMEs. *Management Research Review*, 42(1), 155–171. <https://doi.org/10.1108/mrr-12-2017-0441>
- Paswan, A. K., Guzmán, F., & Pei, Z. (2020). Innovation-branding: should all firms be equally ambidextrous? *Journal of Product & Brand Management*, 30(5), 754–767. <https://doi.org/10.1108/jpbm-07-2019-2476>
- Phuong, L. N., Tuan, K. C., Duc, N. N., et al. (2022). The Impact of Absorption Capability, Innovation Capability, and Branding Capability on Firm Performance—An Empirical Study on Vietnamese Retail Firms. *Sustainability*, 14(11), 6422. <https://doi.org/10.3390/su14116422>
- Piha, L., Papadas, K., & Davvetas, V. (2021). Brand orientation: Conceptual extension, scale development and validation. *Journal of Business Research*, 134, 203–222. <https://doi.org/10.1016/j.jbusres.2021.05.023>
- Rua, O. L., & Santos, C. (2022). Linking brand and competitive advantage: The mediating effect of positioning and market orientation. *European Research on Management and Business Economics*, 28(2), 100194. <https://doi.org/10.1016/j.iedeen.2021.100194>
- Schilke, O. (2014). On the contingent value of dynamic capabilities for competitive advantage: The nonlinear moderating effect of environmental dynamism. *Strategic Management Journal*, 35(2), 179–203. <https://doi.org/10.1002/smj.2099>
- Schilke, O., Hu, S., & Helfat, C. E. (2018). Quo Vadis, Dynamic Capabilities? A Content-Analytic Review of the Current State of Knowledge and Recommendations for Future Research. *Academy of Management Annals*, 12(1), 390–439. <https://doi.org/10.5465/annals.2016.0014>
- Skålén, P., Gummerus, J., von Koskull, C., et al. (2015). Exploring value propositions and service innovation: a service-dominant logic study. *Journal of the Academy of Marketing Science*, 43(2), 137–158. <https://doi.org/10.1007/s11747-013-0365-2>
- Tagashira, T., & Minami, C. (2019). The Effect of Cross-Channel Integration on Cost Efficiency. *Journal of Interactive Marketing*, 47, 68–83. <https://doi.org/10.1016/j.intmar.2019.03.002>
- Tsai, S. P. (2015). Dynamic marketing capabilities and radical innovation commercialisation. *International Journal of Technology Management*, 67(2/3/4), 174. <https://doi.org/10.1504/ijtm.2015.068223>
- Uyen, N. T., Manh, H. V., Binh, D. T., et al. (2022). A literature review and reality of innovation practices and sustainable competitive advantage of young firms in Vietnam—New realities. *Universidad y Sociedad*, 14(4), 413–420.
- Verhoef, P. C., Kannan, P. K., & Inman, J. J. (2015). From Multi-Channel Retailing to Omni-Channel Retailing. *Journal of Retailing*, 91(2), 174–181. <https://doi.org/10.1016/j.jretai.2015.02.005>
- Vollmayr, C. H. J., & Hahn, A. (2014) Firm Value Creation through Major Channel Expansions: Evidence from an Event Study in the United States, Germany, and China. *Journal of Marketing*, 78(3), 38–61. <https://doi.org/10.1509/jm.12.0179>
- Wang, C. L., & Ahmed, P. K. (2004). The development and validation of the organisational innovativeness construct using confirmatory factor analysis. *European Journal of Innovation Management*, 7(4), 303–313. <https://doi.org/10.1108/14601060410565056>
- Wilhelm, H., Schlömer, M., & Maurer, I. (2015). How Dynamic Capabilities Affect the Effectiveness and Efficiency of Operating Routines under High and Low Levels of Environmental Dynamism. *British Journal of Management*, 26(2), 327–345. <https://doi.org/10.1111/1467-8551.12085>
- Williamson, P. J. (2016). Building and Leveraging Dynamic Capabilities: Insights from Accelerated Innovation in China. *Global Strategy Journal*, 6(3), 197–210. <https://doi.org/10.1002/gsj.1124>
- Wu, W. Y., & Nguyen, P. T. (2019). The antecedents of dynamic service innovation capabilities: The moderating roles of market dynamism and market orientation. *International Journal of Innovation Management*, 23(07), 1950066. <https://doi.org/10.1142/s136391961950066x>
- Zang, J., & Li, Y. (2017). Technology capabilities, marketing capabilities and innovation ambidexterity. *Technology Analysis &*

Strategic Management, 29(1), 23–37. <https://doi.org/10.1080/09537325.2016.1194972>

Zhang, M., Ren, C., Wang, G. A., et al. (2018). The impact of channel integration on consumer responses in omni-channel retailing: The mediating effect of consumer empowerment. *Electronic Commerce Research and Applications*, 28, 181–193. <https://doi.org/10.1016/j.elerap.2018.02.002>