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*Corresponding author: Minh Pham, Faculty of Business Administration, Ho Chi Minh City Open University, Vietnam
E-mail: minh.p@ou.edu.vn

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How service operations, perceived benefit, and psychological ownership enhance customer retention in retail - evidence in Vietnam supermarkets

Diep T.N. Nguyen[1,2], Minh Pham[2]*, Miloslava Chovancová[1] and Sinh Duc hoang[3]

Abstract: In a world with enormous opportunities and challenges from the 4.0 revolution and the lingering COVID-19 pandemic, customer retention is more important than ever for retailers. While marketing and advertising can be more or less limited during the pandemic, retailers pay more attention to the supply and service operations of products as salvage to satisfy the essential demands of customers. However, few scholars discuss the effects of service operations on customer retention in retail because it is lower consumer awareness and challenging to measure accurately and adequately. Therefore, with the foundation of

ABOUT THE AUTHORS

Diep T.N. Nguyen is a Ph.D. candidate at the Faculty of Management and Economics of Tomas Bata University in Zlin (Czech Republic), a Lecturer at Ho Chi Minh City Open University (Vietnam). She possessed an MBA degree in Banking and Finance from Birmingham University (UK) and fifteen-year experience in banking and finance before becoming a senior manager in the four most prominent retailers in Vietnam. Her research interests are Corporate finance, Business administration, Service operations management, and Enterprise risk management, especially in the retail sector.

Miloslava Chovancová, Associate Professor in the Faculty of Management and Economics, Tomas Bata University in Zlin (Czech Republic). Her research interests are Consumer Behaviour and Brand Management. Her most recent publications are related to changes in consumer behaviour, changes in services, and the influence of brands on consumer behaviour, especially in the retail and organic food business.

Minh Pham, currently works as the Vice-head of the Department of Business Administration, Ho Chi Minh City Open University (Vietnam). He used to be a Project manager at Saigon Co-op in Ho Chi Minh city. His professional interests are social marketing, operations management and start-up.

Sinh Duc Hoang is a Ph.D. candidate at Tomas Bata University in Zlin (Czech Republic), a Lecturer at Ho Chi Minh City University of Foreign Languages and Information Technology (Vietnam), teaching Principal of Marketing Financial Modeling, and Financial Management. His research interests are Marketing, Financial behaviour, Organizational management, and Business administration.

In modern life, retail plays a significant role as the connection between producers and end-users. During the last decades, the fast growth of the retail industry has led to aggressive competition among retail channels. Consequently, customer retention has become more critical for retailers. Despite plenty of opportunities from the technology revolution, retailers, whose typical formats are supermarkets and hypermarkets, deal with many challenges from lingering COVID-19. Regarding shopping behaviour, it has remarkably changed from instore to online or a combination of instore and online shopping. More than ever, customers pay more attention to shopping convenience and benefits. This study has revealed that customers are still embedded in supermarkets for essential consumption due to store service operations and maintain shopping because of what they experience and benefit against what they pay instead of only the best products or lowest price.

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commitment-trust theory, this study examines service operations' direct and indirect effects on customer retention through perceived benefit in omnichannel retailers. Simultaneously, it assesses how psychological ownership affects customer retention and moderates the effect of perceived benefit on customer retention in the Vietnamese supermarket as empirical evidence. The combination of a qualitative method (with 32 in-depth interviews) and a quantitative method (through a survey conducted with 374 shoppers) is implemented. Partial least-squares structural equation modelling with SmartPLS software is utilized for data analysis and hypothesis testing. From the findings, the study offers an operations perspective and a customer view of how to store service operations contribute to customer perception of benefits and customer retention. Interestingly, the study discovered that psychological ownership is not only a critical antecedent of customer retention but also enhances the effect of perceived benefit on customer retention as its moderating role.

Subjects: Marketing Research; Consumer Behaviour; Marketing Management

Keywords: Perceived benefit; psychological ownership; retailing; service-operations; supermarkets

1. Introduction

In the new global economy, there is evidence that retailing, the chain of activities related to purchasing and providing goods and services to consumers (Cox & Brittain, 2004), plays a crucial role in the supply chain (Lysons & Farrington, 2020). Furthermore, retailing is a critical sector in any economy, which rapidly changes markets, businesses, and consumer shopping behaviour (Hübner et al., 2018). As an inevitable trend of the 4.0 technology revolution, it deals with novel challenges and complexities (Caro et al., 2020; Mou et al., 2017). The last decades have witnessed a growing trend toward modern retail with significant transformations and innovations. Now, in the mature stage, retailers have various formats, such as convenience stores, conventional supermarkets, superettes, hypermarkets, food-based superstores, combination stores, box (limited-assortment store), hard discount stores, warehouse stores (Berman et al., 2018; Gauri et al., 2021; Zentes et al., 2017). The diversity of retail channels and store formats brings customers more and more experiences and benefits (Alexander & Cano, 2020; Dunne et al., 2011) and contributes a significant global sales proportion.

Regarding the trigger of retail innovations, the breakthrough of ICT generates the introduction of e-shopping as one of the most important achievements in the retail industry (Shankar et al., 2021). Although physical stores account for most worldwide retail sales, e-retailers or non-store retailers rapidly encroach the retail market worldwide. At the tipping point of innovation, the omnichannel retailer can be recognized as superior to create a more substantial competitive advantage with the excellent combination of in-store and online shopping, bringing more benefits to consumers (Alexander & Cano, 2020; Turner & Gardner, 2014). Moreover, the COVID-19 pandemic strongly negatively impacts people's lives and the global economy, and indeed, retailing is also severely damaged by it (Roggeveen & Sethuraman, 2020). While marketing campaigns and advertising activities are limited during the pandemic outbreak and social distance, omnichannel retailers are seeking short-term operating approaches (e.g., delivery, inventory, and supply chain aspects) to ensure customers' essential needs and simultaneously attempt to predict customer behaviour after pandemic as likely new-normal (Gauri et al., 2021; Hwang et al., 2020; Roggeveen & Sethuraman, 2020). Therefore, store operating performance with a customer-centric approach is a considerable long-term solution for supermarkets to increase customer benefits and retention (Gupta & Ramachandran, 2021; Roggeveen & Sethuraman, 2020).

As a critical demand, scholars and omnichannel retailers should investigate customer retention and its antecedents from an operations perspective in a rough context with the negative impacts of the severe pandemic. Therefore, inspired by the gaps between academic knowledge and business practice, this study aims to discover whether supermarket service operations, in terms of operational service factors, increase PB and CR, with the Vietnamese retail context as empirical evidence. The study also predicts whether the psychological ownership of the customer affects their shopping behaviour and attitude when repurchasing in supermarkets.

In sum, the research questions are presented below:

a. *Which service operational factors support customer benefits and customer retention in supermarkets?*
b. *Does the perceived benefit generated by operational service factors support customer retention in supermarkets?*
c. *Does psychological ownership increase customer retention and moderate the relationship between perceived benefit and customer retention in supermarkets?*

To answer these questions, the objectives are set to (i) identify the operational service factors that directly affect CR and indirectly affect CR through BP, (ii) examine the mediating role of PB in the relationships between the service operational factors and CR, and (iii) investigate the impact of PO on CR and its moderating role on the effect of PB on CR. Based on the commitment-trust theory (Morgan & Hunt, 1994), a conceptual model to represent the direct and indirect effects through PB of the service operational factors on CR is formulated. Simultaneously, the model presents the moderating role of PO on the effect of PB on CR, which allows us to predict whether the relationship between PB and CR can change due to PO. A combination of Qualitative and Quantitative research is deployed. Partial least-squares structural equation modelling (PLS-SEM) with SmartPLS is utilized for data analysis and hypothesis testing.

The remaining structure of this study takes the form of five sections, consisting of Related literature, Conceptual framework and hypothesis formulation, Research methodology, Research findings and Discussions, and Conclusion.

2. Related literature

2.1. Retailing and service operations
While various definitions of the term retailing have been suggested, Cox and Brittain (2004, p. 3) indicate that "Retailing is the sale of goods and services to the ultimate consumer for personal, family, or household use". Similarly to any business, a retailer has three core functions: Operations, Finance, and Marketing (Stevenson, 2018), in which Operations function is central because its performance of products and services delivery positively affects customer satisfaction and customer loyalty in the long term (Kumar et al., 2011; N. C. Slack et al., 2016). Indeed, what customers experience during the shopping journey results from numerous efforts of relevant functions, mainly operations (Hübner et al., 2018).

Mentioning retail operations, Kandampully (2012) claims that all aspects of modern retail business primarily concern product-related and service-related issues, from procurement to stakeholder relationship establishment, and stores are where goods and services are delivered. However, the service operations, which significantly contribute to the loyalty of the customers and substantially improve CR (Bojei et al., 2013; Reddy et al., 2011; Stevenson, 2018), are invisible to supermarkets customers (Ray & Chiagouris, 2009). Regarding input resources of services, Johnston et al. (2021) and N. C. Slack et al. (2016) identify two groups: (i) Transforming resources (e.g., staff, facilities, technology, knowledge, etc.) and (ii) Transformed resources (e.g., materials, information, customers, etc.). As a result, based on the retail operations perspective, combined

with merchandise, services create retail synergy to bring more customer values and benefits and increase customer retention and loyalty (Johnston et al., 2021). Johnston et al. (2021) argue that retailing is a special industry with essential services, of which input resources consist of People (staff), Locations (premises and facilities), Technology (ICT systems), and Service processes (knowledge) to create the "products" in terms of customers' experience, benefits, emotions, judgment, and purchase intentions.

2.2. Customer retention and its importance in retail

Theoretically, customer retention (CR) has been an exciting topic for scholars since the mid-1990s (Ang & Buttle, 2006) and a more critical issue of any business organization than ever (Cambra-Fierro et al., 2021), especially in retail (Dunne et al., 2011). Many scholars claim that CR can be understood as the capacity of a company or the ability of a product to maintain a continuous business relationship with customers for the long term (Vroman, 1996). According to R. L. Oliver (1997, p. 392), CR means "Deeply held commitment to rebuy or repurchase a preferred product or service consistently in the future, despite situational influences and marketing efforts having the potential to cause switching behaviour". This definition is close to those of Buttle (2004, 2009) and Alberts et al. (2018), who define CR as a company's effort to promote a sustainable long-term business relationship with its customers, or the continuity of relationships between the organization and the customers. In particular, Srivastava et al. (2018) have a new definition of usable in retail that CR is the tendency or attitudinal measurement of existing customers for repurchasing.

Based on previous studies, Buttle and Maklan (2019, p. 95) practically define CR as follows:

Customer retention is the number of customers doing business with a firm at the end of a financial year expressed as a percentage of those who were active customers at the beginning of the year.

Regarding the customer lifecycle, Buttle (2004), Buttle and Maklan (2015, 2019), Zentes et al. (2017) claim that it is of three main stages: (i) customer acquisition, (ii) customer retention, and (iii) customer development, in which customer retention is the stage that every enterprise wants to prolong as much as possible. CR is always one of the retailers' most crucial business concentrations (Ahmad & Buttle, 2002; Aspinall et al., 2001; Buttle, 2009; Dunne et al., 2011; Kanwal & Rajput, 2014). Additionally, Payne et al. (1998) argue that strong correlations exist between company profitability, service quality, and CR. They further explain that the company benefits from increased customer expenditure from high repurchase frequency, less price-sensitive, willingness to pay a price premium, and significant sources of referrals. In contrast to other researchers, Bojei et al. (2013) argue that loyalty can measure CR, and loyal customers usually stay with the firm and repurchase; however, customers who make a repeat purchase or retain are not necessarily loyal to the firm.

Additionally, CR rates can significantly influence company profitability, while customer satisfaction does not always guarantee customer loyalty (Stevenson, 2018); therefore, retailers should design a retention strategy to keep customers shopping as much as possible. In the context of aggressive competition among retail channels, the concept of patronage in retailing is developed by Blut et al. (2018) as the interchange between retailers and shoppers, in which retailers offer services to obtain their shoppers' positive attitude and behaviour for long-term retention. Additionally, in empirical research, Kamran Disfani et al. (2017) also emphasize that the satisfaction-loyalty link in retail is more important than ever with store format enhancements.

Regarding CR antecedents, generally, most studies focus only on customer satisfaction, customer loyalty, and perceived values from a marketing point of view. These common antecedents have been shown to directly result in CR or mediate between other factors and CR. Additionally, many scholars have discussed the possible impact of operations on CR (Ahmad & Buttle, 2002; Huarng & Yu, 2020; Kanwal & Rajput, 2014; Ray & Chiagouris, 2009) in the retail industry in recent

years. While the main remains just partially reflect an operational prerequisite role in delivering perceived benefits for customer satisfaction or loyalty and retention (Aparna et al., 2018; Blut et al., 2018; Bojei et al., 2013; Hanaysha, 2018; Huarng & Yu, 2020; Julian et al., 2015; Sharmeela-Banu et al., 2012).

According to Ahmad and Buttle (2002), Aspinall et al. (2001), and Buttle and Maklan (2015, 2019), historical data and related metrics, in terms of Key Performance Indicators (KPIs), such as customer retention rate, profit-adjusted retention rate, cost of Customer retention or Cost-effectiveness of Customer retention tactics, are usually used to measure CR in practice. As a result, CR measurements in retail from an operations perspective are very different. However, they are also based on three main approaches: Behavioral measurements, Attitudinal measurements, and Composite measurements (Bowen & Chen, 2001; Oliver, 1999). In contrast, Aspinall et al. (2001) discover that managerial employees usually use the metrics, e.g., trends in sales, sales and sales at the individual level, percentage of customers buying and frequency as behavioural measurements, and measure of declared loyalty/commitment, customer attitude, and product preferences as attitudinal measurements.

2.3. Perceived benefit in retail

While a variety of opinions on Perceived benefit (PB), one definition is close to those of Chandon et al. (2000) and Liu et al. (2013), who define PB as the beliefs of positive outcomes associated with behaviour, usually in a specific transactional context or for an individual's perception. Also, PB is presented as a positive value as customers' expectation of the quality of products or services (Gan & Wang, 2017; Goraya et al., 2020; Hult et al., 2019; Zeithaml, 1988), one of the results of the service operations process (Johnston et al., 2021; N. C. Slack et al., 2016). Especially in retail, PB is the customer's perception of the best fit their expectation when shopping through variety, convenience, trust, risk, etc. (Zhu et al., 2018). In other words, PB is the beneficial effect of a specific transaction, a positive outcome, or an advantage of shopping (Hasim et al., 2019). For e-retailing, PB is described as an expected reward for customers (Komalasari et al., 2021; Koohikamali et al., 2019) or as the total benefit that satisfies consumer needs and wants (Tanadi et al., 2015).

"Today's value-conscious customers are neither impressed by the best product nor persuaded by the lowest price alone. Instead, consumer purchase decisions are often guided by a careful assessment of what benefits they obtain" (Mazumdar, 1993, p. 29). In other words, customers pay more attention to their shopping benefits and cost-effectiveness to save money, time, and effort and maximize their experience and satisfaction (Y. K. Kim & Kang, 1997; Y. K. Kim et al., 2002, 2014; Zeithaml, 1988). Therefore, the perceived benefit of the customer becomes significant for retailers to satisfy customers and lead to greater loyalty of customers to stores (Alreddy et al., 2019; Kyguoliene et al., 2017). When discussing shopping benefits based on the marketing view, Y. K. Kim et al. (2014) present that customers seek the benefits or outcomes of purchasing, such as pleasure and convenience from stores and quality merchandise at a reasonable price. Hence, many scholars conclude that offering more benefits and value to the customer's service experience beyond the core products can allow firms to benefit from loyal customers, lead to brand commitment and brand equity (Goraya et al., 2020; J. Oliver, 2014; Zhu et al., 2018). Also, Pal and Byrom (2003) argue that operational factors (i.e., Stock, Space, Staff, Systems, and Standards) can contribute to retailers' customer benefits. Alberts et al. (2018) define that Customer benefits show how the customer may benefit from the products and services; hence, Retailers should understand customer needs to provide what exceeds their expectations for survival and success (Pal & Byrom, 2003).

Concerning the antecedents of PB, scholars provide various concepts depending on industry specifications, distribution channel format, or perspectives of marking or operation. Typically, J. Oliver (2014), Kyguoliene et al. (2017), Steyn et al. (2010) claim that loyalty programs or marketing strategies generate PB. In contrast, other scholars argue that PB is derived from perceived product quality and price (Sweeney & Soutar, 2001; Yeh et al., 2020; Zeithaml, 1988),

service quality, innovation (Yeh et al., 2020), store image, price image (Diallo, 2012; Yeh et al., 2020). Particularly in the retail sector, Mishra et al. (2012) claim that PB's dimensions are Saving, Quality, Convenience, Value expression, Exploration, and Entertainment derived from sales promotion. H. -Y. Kim et al. (2013) and Kyguoliene et al. (2017) argue that retailers' loyalty programs can create customer benefits such as money-saving, convenience, entertainment, recognition, and social benefits. Unlike previous researchers, Goraya et al. (2020) and Zhu et al. (2018) believe that offline and online channel integration generates customer benefits, including perceived variety, convenience, and risk reduction. However, not many researchers have paid particular attention to the effects of operational service factors on PB. Mentioning PB's consequences, positively and surprisingly, almost all scholars agree that they are commonly patronage (or patronage intention), purchase intention, satisfaction, retention, or loyalty (Gan & Wang, 2017; Goraya et al., 2020; H. -Y. Kim et al., 2013; Kyguoliene et al., 2017; Zeithaml, 1988; Zhu et al., 2018).

2.4. Psychological ownership and consumer behaviour
Recent studies show that psychological ownership (PO) is closely related to consumer behaviour, especially in Revolution 4.0 and intense competition among retail channels (Morewedge et al., 2021; Peck & Shu, 2018). The concept of PO is derived from the extension of self-theory (Peck & Shu, 2018) and described as "the state in which individuals feel as though the target of ownership (material or nonmaterial in nature) or a piece of it is 'theirs' (i.e., 'It is mine!')" (Pierce, Pierce et al., 2001, p. 299, 2003, p. 86). In other words, PO is defined as the individuals' feelings of ownership or sense of possessiveness toward a target thing (Blut et al., 2018; Julian et al., 2015; Peck & Shu, 2018). Furthermore, Pierce et al. (2003) also explain that PO refers to the sense of possession that happens even without legal ownership. According to Peck and Shu (2018), PO can predict positive consumer attitudes or behaviour, such as willingness to pay more for a product or service, word-of-mouth, or purchase intention. Understanding the motives and routes of PO can help marketers and managers predict customers' behaviours; therefore, it is recommended that retailers in the technology-driven evolution preserve customer PO as a priority of business strategy.

In a study not so long, Q. Zhao et al. (2016) illustrate that PO significantly affects customer loyalty, while J. H. Kim et al. (2021) claim that PO impacts consumers' behavioural outcomes and influences their satisfaction. In recent research, I. T. Lee et al. (2021) demonstrate the relationships between PO and customer trust, satisfaction, perceived benefit, and perceived risks in the service industry. Additionally, Kirk and Swain (2018) demonstrate that digital technologies can improve PO by giving opportunities to consumers and showing or developing their feelings of ownership in the diverse digital environment (e.g., websites, virtual worlds, or social networks). Thus, omnichannel retailers should offer a practical and convenient shopping environment for customer experience or attractive imagery design on websites or any media channel for enhancing PO to obtain customer trust, satisfaction, perceived benefit, and CR.

3. Conceptual framework and hypothesis formulation
When reviewing the studies of trust, Paluri and Mishal (2020) mention that trust is described as the belief that a party's promise is trustable and that party will carry out its responsibilities in an exchange relationship (Schurr and Ozanne, 1985, cited by Paluri & Mishal, 2020). In contrast, commitment is when the trading parties are willing to devote energy to sustaining the relationships (Dion et al., 1992, cited by Paluri & Mishal, 2020). A commitment between parties can be understood as the willingness of buyers and suppliers to exert effort based on their relationships (Paluri & Mishal, 2020). Morgan and Hunt (1994) claim that long-term relationships between organizations and individuals are impossible without trust and commitment. Interestingly, Liang and andWang (2006) and Mahmoud et al. (2018) imply that building customer trust is one of the critical strategies to ensure customer retention. At the same time, Wong and Sohal (2002) and Evanschitzky et al. (2006) suggest that commitment of service providers and customers positively affects CR.

This study is an opportunity to examine the retail industry's commitment-trust theory (Morgan & Hunt, 1994). Hypothetically, this theory can be implied in the retailing context that retailers, as

trading parties or service providers, desire to maintain long-term relationships with customers by performing their responsibilities as commitments to bring the most benefits to customers for trust creation. Customers, as committed parties, trust retailers through PB and may engage in retention or patronage in-store or online. Therefore, the conceptual model is formulated to illustrate the effects of operational service factors, including People, Premises, ICT systems, and Customer services, on PB and CR. Furthermore, as a new development, the model shows the integration of (i) the mediating role of PB between operational service factors and CR and (ii) the moderating role of PO on the effect of PB on CR, which can be seen in Figure 1.

According to Johnston et al. (2021), N. C. Slack et al. (2016), and Stevenson (2018), the input resources of service operations consist of People (staff), Locations (premises and facilities), Technology (ICT systems), and Service process (knowledge). In this research, these dimensions, also-called service operational factors, are the basis for developing the research hypotheses. As the conceptual model, the service operational factors, so-called independent variables, are redefined in terms of People, Premises, ICT systems, and Customer services with relevant indicators developed from the existing studies in the retail and service sectors. The constructs and their relevant indicators' descriptions can be found in Table 1.

Regarding the target variable of the model, the CR construct is adopted and developed from previous work-related literature in the retail and service sectors, including six indicators related to customer retention and the intention of patronage or repurchase. CR can be reflected by Preference, Frequency increase, Feeling loyalty, Word-of-mouth, Recommendation, and Involvement, which are detailed in Table 2.

Because service operational factors are theorized to have effects on CR as in the conceptual model, the hypotheses are proposed as follows:

H1a: *People (Employees) in supermarkets have direct positive effects on CR.*

H1b: *Premises of supermarkets have direct positive effects on CR.*

H1c: *ICT systems in supermarkets have direct positive effects on CR.*

H1d: *Customer services of supermarkets have direct positive effects on CR.*

Additionally, PB is hypothesized to mediate between service operational factors and CR in this research. The proposed dimensions of PB are Instant gratification, Saving, Convenience, and Enjoyment, which are probably generated from service operations based on previous studies in retail. Besides, perceived risk is described as a component lessening PB as per the perceived value concept (Zeithaml, 1988); hence, Risk reduction can be considered a positive dimension in improving PB in this research. The descriptions of PB indicators are detailed in Table 3.

Figure 1. Conceptual model of the study .
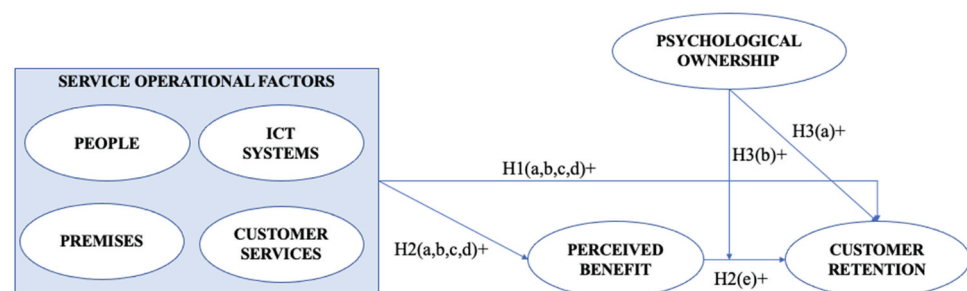
(Source: Authors)

Table 1. Measurement of independent variables	
Descriptions	**Sources**
People (PEO)	
(PEO_1) High competency: Supermarket employees are well-educated, knowledgeable, professional, intelligent, and skilful.	Amorim and Saghezchi (2014); Dokcen et al. (2021); Siu and Cheung (2001); N. Slack et al. (2020); Swoboda and Winters (2021).
(PEO_2) Positive interaction: When interacting with customers, employees are always friendly and courteous, with an attitude of respect and empathy to offer personal attention or meet the requirements of customers.	Amorim and Saghezchi (2014); Dokcen et al. (2021); Gupta and Ramachandran (2021); Siu and Cheung (2001); N. Slack et al. (2020)
(PEO_3) Positive working attitude: Employees are enthusiastic, helpful, or supportive, promptly providing information about products and services to customers beyond expectations or showing great interest and motivation to resolve your problems or difficulties.	Amorim and Saghezchi (2014); Dokcen et al. (2021); Hanaysha (2018); N. Slack et al. (2020); Siu and Cheung (2001); Swoboda and Winters (2021)
(PEO_4) Honesty: Employees are proactive and reliable with business ethics and responsiveness to instil confidence in customers.	Dokcen et al. (2021); Siu and Cheung (2001); N. Slack et al. (2020)
Premises (PRI)	
(PRM_1) Accessibility: Supermarkets are easily accessible (whether they are inside/outside or near/far from residential areas, in the centre, or isolated areas) and reachable by walking, bicycles/motorcycles, cars, or public transport means.	Amorim and Saghezchi (2014); Dokcen et al. (2021); Y. K. Kim et al. (2014); Vedamani (2017)
(PRM_2) Safety: Store format, design, layout, and interior are standardized to ensure hygiene, safety, and a secure shopping environment.	Amorim and Saghezchi (2014); Dokcen et al. (2021); Hanaysha (2018); Y. K. Kim et al. (2014); N. Slack et al. (2020); Swoboda and Winters (2021)
(PRM_3) Comfortable shopping environment: The supermarket has modern infrastructure, convenient equipment, and facilities such as elevators/escalators, lockers, parking places, designated areas for smokers, utilities for the disabled, etc.	Amorim and Saghezchi (2014); Berman et al. (2018); Dokcen et al. (2021); Hanaysha (2018); Y. K. Kim et al. (2014); Siu and Cheung (2001); N. Slack et al. (2020); Vedamani (2017)
(PRM_4) Entertainment ecosystem: Stores are located in buildings with facilities and infrastructure which form an entertainment ecosystem in one place, such as food corners, cinema, entertainment and game areas, sports, health and beauty care services, bookstores, etc.	De Nisco and Napolitano (2006); Elmashhara and Soares (2019); Sit et al. (2003)
ICT systems (ICT)	
(ICT_1) Online shopping: Supermarkets as omnichannel retailers offer online shopping, which is especially practical and helpful for customers to find products, order, and deliver anytime, anywhere without having to go to the supermarkets during the COVID-19 outbreak.	J. Li et al. (2020); J. Oliver (2014); Sharma and Jhamb (2020); Indiani and Febriandari (2021)
(ICT_2) Speedy shopping process: ICT system in management makes supermarket operations more effective and efficient, saving time for product searching and picking, accurate payment, and quick delivery to customers.	Amorim and Saghezchi (2014); Goraya et al. (2020); Harris et al. (2017); Indiani and Febriandari (2021); Siu and Cheung (2001); N. Slack et al. (2020); Swoboda and Winters (2021)
(ICT_3) Information accessibility: supermarkets' information can be easily accessed for searching, checking, or comparing prices and receiving promotional information to encourage shopping.	Amorim and Saghezchi (2014); Bojei et al. (2013); Goraya et al. (2020); Swoboda and Winters (2021)
(ICT_4) Flexible payment: Supermarkets accept various alternative payments, e.g., cash, credit/debit card, store card, e-wallet, voucher, etc.	Amorim and Saghezchi (2014); Dokcen et al. (2021); Siu and Cheung (2001); Swoboda and Winters (2021)
Customer services (CUS)	

(Continued)

Descriptions	Sources
(CUS_1) After-sales services: Supermarkets offer free after-sales services such as same-day fast delivery, warranties, free gift wrapping, and other additional services.	Amorim and Saghezchi (2014); Dokcen et al. (2021); J. Oliver (2014); Siu and Cheung (2001); Swoboda and Winters (2021)
(CUS_2) Effective complaint handling: The customer complaint handling process is designed and implemented effectively, quickly to exchange/return, and mainly focuses on customer benefits.	Bojei et al. (2013); Dokcen et al. (2021); Irfan et al. (2019); Y. K. Kim et al. (2014); Mahmoud et al. (2018); Siu and Cheung (2001); Swoboda and Winters (2021)
(CUS_3) Personalization: Supermarkets are always ready to provide prompt personal assistance to customers who have special requests with individual attention or a genuine interest in solving customers' problems.	Bojei et al. (2013); Y. K. Kim et al. (2014); Sands et al. (2015); N. Slack et al. (2020)
(CUS_4) Commitment: Available services, e.g., supportive services and exchange/return/cashback guarantee), are provided right the first time at all times as promised.	Amorim and Saghezchi (2014); Bojei et al. (2013); Dokcen et al. (2021); Goraya et al. (2020); Siu and Cheung (2001); N. Slack et al. (2020)

(Source: The authors)

Table 2. CR's measurements and descriptions	
Descriptions	**Sources**
(CR_1) Preference: Customers continue to do shopping at supermarkets as their preference or first choice.	Bojei et al. (2013); Dokcen et al. (2021); Hanaysha (2018); Goraya et al. (2020); Graciola et al. (2018); Noyan and Simsek (2012)
(CR_2) Frequency increasing: Customers increase purchasing frequency in supermarkets or on supermarket websites.	Aspinall et al. (2001); Damiri and Raharja (2017); Emrich et al. (2015); Gengeswari and Padmashantini (2013); Hanaysha (2018)
(CR_3) Feeling loyalty: Customers feel commitment or loyalty towards the supermarket(s) and will not switch to other retail channels despite being price-sensitive or having any problems experienced when shopping in supermarkets.	Bojei et al. (2013); N. Slack et al. (2020)
(CR_4) Word-of-mouth: Customers are willing to say positive things about supermarkets and their benefits.	Clottey et al. (2008); Damiri and Raharja (2017); Goraya et al. (2020); Mahmoud et al. (2018); Ray and Chiagouris (2009); N. Slack et al. (2020)
(CR_5) Recommendation: Customers are willing to recommend their relatives, friends, or colleagues to do shopping in supermarkets.	Emrich et al. (2015); Gengeswari and Padmashantini (2013); Goraya et al. (2020); Mahmoud et al. (2018); N. Slack et al. (2020)
(CR_6) Involvement: Customers regularly give suggestions to improve the quality of the products and services of the supermarket (s).	Aspinall et al. (2001); Bojei et al. (2013); Buttle and Maklan (2015)

(Source: The authors)

From the literature and the conceptual model, PB is hypothesized as below:

H2a: *People (Employees) in supermarkets have direct positive effects on PB.*

H2b: *Premises of supermarkets have direct positive effects on PB.*

H2c: *ICT systems in supermarkets have direct positive effects on PB.*

H2d: *Customer services of supermarkets have direct positive effects on PB.*

Table 3. PB's measurements and descriptions	
Descriptions	**Sources**
(PB_1) Instant gratification: Shopping in supermarkets, customers can be instantly satisfied with their purchasing decision (through staff interactions, shopping environment, facilities, quality products and services, reasonable price and payment method, etc.)	Graciola et al. (2018); Hanaysha (2018); Indiani and Febriandari (2021); Irfan et al. (2019); Turner and Gardner (2014); Kumar and Ayodeji (2021); Noyan and Simsek (2012); N. Slack et al. (2020)
(PB_2) Saving: When shopping at supermarkets or through a supermarket website, customers can save time (for travelling, picking, queuing for check-out, etc.), money (thanks to low price and discounts), and effort to make a purchase.	Graciola et al. (2018); Harris et al. (2017); Y. K. Kim et al. (2014); Kyguoliene et al. (2017); Masri et al. (2021); Noyan and Simsek (2012)
(PB_3) Convenience: Shopping convenience is offered by supermarkets, such as open hours, effectively purchasing process (in-store and online), shopping environment, after-sales services at any time, quick exchange/return guarantee at stores (even shopping online), etc.	Emrich et al. (2015); Harris et al. (2017); Indiani and Febriandari (2021); Komalasari et al. (2021); Moeller et al. (2009), Zhu et al. (2018)
(PB_4) Enjoyment: customers can entertain and experience social activities, opportunities for customers to interact with employees or friends/ relatives or enjoy and reward shopping experience.	Dokcen et al. (2021); Goraya et al. (2020); Hanaysha (2018); Johnston et al. (2021); Y. K. Kim et al. (2014); Kumar and Ayodeji (2021); Levy et al. (2019); Noyan and Simsek (2012);
(PB_5) Risk reduction: Shopping in supermarkets, customers can reduce the risk of shopping due to safety, security, hygienic shopping environment, guaranteed services as commitment and financial risk-free.	Emrich et al. (2015); Hanaysha (2018); Y. K. Kim et al. (2014); Indiani and Febriandari (2021); Levy et al. (2019), Shiu (2021)

(Source: The authors)

H2e: *PB has a direct positive effect on CR, such that it mediates the effect of service operational factors on Customer retention in supermarkets.*

So far, this is the first time the integration of mediating effect of PB and moderating effect of PO on CR has been examined in retail. Therefore, PO's dimensions are adopted and developed from the studies of Peck and Shu (2018) and Peck and Luangrath (2018), and PO's indicators are purposively selected and modified to be suitable for the research context. Although many scholars, e.g., Emrich et al. (2015) and Q. Zhao et al. (2016), deeply study the mediating role of PO, in this paper, PO is hypothesized to positively affect CR and moderates the effect between PB and CR. The proposed scales are presented with detailed descriptions in Table 4.

3.1. Based on the conceptual model and the review of previous studies, the hypotheses are formulated as follows

H3a: *PO has a direct positive effect on CR.*

H3b: *PO positively moderates the effect of PB on CR in supermarkets, such that the relationship between PB and CR is more robust when PO is high.*

4. Research methodology
The qualitative method is utilized in this study because it can offer an effective way to develop a theory. It is more beneficial to gain insight into store service operations and discover the gaps between academic studies and business practice (Saunders et al., 2019). In-depth interviews with store managers are conducted to collect expert opinions to assess and verify the proposed constructs, and select the most suitable and relevant indicators of these constructs in the conceptual model.

Table 4. PO's measurements and descriptions	
Descriptions	**Sources**
(PO_1) Sense of store or its website ownership: When shopping in a supermarket or on its website, customers feel like it is theirs.	Avey et al. (2009); Kirk and Swain (2018); J. Lee and Suh (2015)
(PO_2) Sense of product ownership: Although customers have not purchased the product(s), they feel that the products displayed on shelves or quoted on the website are theirs.	Fuchs et al. (2010); Kirk and Swain (2018)
(PO_3) Familiarity: Customers have a strong sense of familiarity or connection with the supermarket or its website, so they can know how it is structured and how its products are displayed.	Avey et al. (2009); Bojei et al. (2013); Kirk and Swain (2018); J. Lee and Suh (2015)
(PO_4) Sense of closeness: Customers feel a strong sense of connection or closeness to the supermarket and its website, so they want to spend more time with it.	Bojei et al. (2013); Fuchs et al. (2010); Kirk and Swain (2018); Peck and Shu (2009)

(Source: The authors)

Sampling for the interview is convenient, non-probability, and purposive to collect the best enable answers to meet the research objectives, based on knowledge of the research problem, that fit particular criteria of exploratory and pretesting a questionnaire. According to Saunders et al. (2019), there is no rule to determine the suitable sample size for non-probability sampling; hence, they recommend twelve to thirty participants for a heterogeneous group. Interviews are conducted with 32 store managers from the five biggest omnichannel retailers from Vietnam (2 companies), Japan, Korea and Thailand, of which stores are located in Ha Noi and Ho Chi Minh City (Vietnam). The criteria to select interviewees are store operations managers who have at least three years of work experience in the target stores. In an attempt to make each interviewee feel as comfortable as possible, the semi-structured interview protocol (in the form of questions and relevant probes) and interview schedules will be sent to interviewees for reference and preparation before the interview is conducted. The interview can be face-to-face or online through Google Meet or Microsoft team. Simultaneously, a commitment letter will be signed between the author (as interviewer) and store managers (on behalf of interviewees) to ensure that information collected will be disclosed if only the store manager's permission is obtained. Because the results of qualitative research are the foundation for designing the survey questionnaire in quantitative analysis in the following stage, the indicators with an agreement rate of less than 60% will not be included and developed in the questionnaire.

Additionally, Quantitative research is deployed in this study to examine the relationships between variables and incorporate controls to ensure data validity in experimental research (Saunders et al., 2019). Together, frequency analysis is used to assess the shoppers' psychology, shopping frequency, attitudes, beliefs, prejudices, preferences, motives, opinions about the store service operations, and their perception of the benefits of shopping in supermarkets.

For data collection, a 5-point Likert scale questionnaire is designed based on the results of qualitative research. The questionnaire in Google Docs, answerable via a PC or mobile device, will be sent to the target respondents who do shopping at least once a month in any store or on the websites of the top five largest supermarkets in Vietnam with the assistance of the store managers. The data collected with the suspicious response (inconsistent, illogical, or straight-lining, e.g., the same score for all) were removed before data analysis.

According to Hair et al. (2017, p. 24), the minimum sample size is proposed to be equal to "10 times the largest number of structural paths directed at a particular construct in the structural model" in PLS-SEM. However, Barroso et al. (2010), Cordeiro et al. (2009), in Vinzi et al., (2010),

Garson ([2016]), and Hair et al. ([2017]) agree that the larger sample size will increase the statistical power, precision, consistency, and reliability of PLS-SEM estimations, and PLS-SEM also works very well with a large sample size (Hair et al., [2019]). Furthermore, with data sets of 250 or more, the results of CB-SEM (covariance-based structural equation modelling) and PLS-SEM are similar with four or more appropriate indicator variables used to measure each construct (Hair et al., [2017]). Therefore, the minimum sample size in this research is 250. With a target population of 1,000 shoppers and an estimated response rate of 25%, the expected sample size will be at least 250.

Especially, Harman's one-factor test (1976) is used to detect bias response through Common Method Variance (CMV). In order to suggest that the quantitative results are non-bias responses, the value of CMV must be less than 50%.

5. Research findings and discussions

5.1. Key research findings

Generally, the qualitative research results were positive. Most participants agreed with all proposed constructs and relevant indicators by at least 75% of interviewees (compared to the target of 60%), although they provided many different and considerable definitions and explanations. The result supported the conclusion that the proposed constructs and indicators were verified. Furthermore, it could be a prerequisite to answer research question one that service operational factors, including People, Premises, ICT systems, and Customer services, may contribute to PB and CR from a retailer's point of view. Taken together, these results provide significant insights into store service operational factors and the point of view of store managers on PB, CR, and PO of customers in the retail context. Based on the results of qualitative research, the questionnaire has been developed, of which each question is derived from a relevant indicator that customers will assess through a survey for quantitative analysis.

For the questionnaire survey of Quantitative research, of 1,000 shoppers of the supermarket chains, who were sent the questionnaire, 429 returned the responses. Positively, the 374 responses to this survey satisfied the quantitative research requirements (much larger than the minimum sample size as required).

As shown in Table 5, the female response rate is 60.96%, a notable higher than that of the male group of 39.04%. It allows the implication that the majority of shoppers are females. The response rate is almost evenly divided among age groups or generations, as defined by Avey et al. ([2009]). Notably, Babyboom and Generation X (41–55 years old or older), Y (26–40 years old) and Z (25 years old or under), as generation definitions of McCrindle and Wolfinger (2009),[1] accounted for 35.83%, 36.10% and 28.07% of the total number of respondents, respectively.

Regarding education, 62.57% of the total respondents have undergraduate and post-graduate degrees. Therefore, not so surprisingly, the majority of respondents are Staff/Worker/Officer (30.21%), Professional/Lecturer/Teacher (28.61%), and Management/Business Owners (17.11%), whose monthly net incomes are commonly in the range from VND10 million to VND25 million. In comparison, the rests account for 24.6%, including Students, Freelancers/Housewives/Retired, and others, with relatively lower incomes than the major groups.

Interestingly, when asked about the frequency of shopping at supermarkets, 62.57% of the respondents answered that they usually do shopping at least once a week, of which 30.48% said that they do shopping in supermarkets at least five times a month. The results are consistent with the reports of PWC (2021) and Statista ([2021a]; [2021b]; 2022c).

For hypothesis testing, the process is performed in two stages: (i) Evaluating the measurement models and (ii) Evaluating the structural model with relevant metrics computed by SmartPLS.

Table 5. Demographic information of respondents			
Criteria		**No. of Responses**	**PCT (%)**
Gender	Male	146	39.04
	Female	228	60.96
Age	25 or younger (Z)	105	28.07
	26–40 (Y)	135	36.10
	41–55 (X)	104	27.81
	Older than 55 (Babyboom)	30	8.02
Education	Postgraduate	49	13.10
	Tertiary/College	185	49.47
	High school	117	31.28
	Others	23	6.15
Occupation	Student	39	10.43
	Staff/Worker/Officer	113	30.21
	Professional/Lecturer/Teacher	107	28.61
	Management/Business Owner	64	17.11
	Freelancer/Housewife/Retired	45	12.03
	Other	6	1.60
Monthly net income	< VND5 Mil.	44	11.76
	VND5 Mil. à < VND10 Mil.	97	25.94
	VND10 Mil. à < VND15 Mil.	88	23.53
	VND15 Mil. à < VND25 Mil.	72	19.25
	VND25 Mil. or more	47	12.57
	No income	26	6.95
Shopping frequency	Once a month	32	8.56
	Twice a month	42	11.23
	Three times a month	66	17.65
	Four times a month	120	32.09
	Five times or more a month	114	30.48

(Source: The authors)

As shown in Table 6, the convergence validity of the conceptual model is built when the relevant metrics are under the thresholds. Mainly, indicators' internal loadings are between 0.790 to 0.893, significantly higher than the threshold of 0.708, and constructs' average variance extracted (AVE) values are from 0.685 to 0.752 while the threshold is 0.5 (Hair et al., 2017, 2019). Moreover, the results in Table 6 also indicate that the internal consistency reliability of the model is confirmed when the values of composite reliability, Cronbach's alpha coefficients, and rho-A are in the range of 0.897 to 0.938, 0.847 to 0.920, and 0.853 to 0.922, within the given thresholds respectively (Hair et al., 2017, 2019).

Moreover, the Heterotrait-Monotrait Ratio (HTMT) is used to examine the discriminant validity of the model. Given that the figures of all the constructs in Table 7 are less than 0.9, the discriminant validity of the model has been checked (Hair et al., 2017). Therefore, it can be concluded that the measurement models are validated.

Table 6. Convergent validity and Consistency reliability						
Constructs and Indicators		**Convergent validity**		**Internal consistency reliability**		
		Loadings ≥0.708	*AVE* >0.50	*Composite Reliability* 0.60–0.95	*Cronbach's Alpha* 0.60–0.95	*Rho_A* 0.70–0.95
Customer retention (CR)	CR_1	0.865	0,715	0,938	0,920	0.922
	CR_2	0.826				
	CR_3	0.853				
	CR_4	0.845				
	CR_5	0.836				
	CR_6	0.848				
Perceived benefit (PB)	PB_1	0.893	0,752	0,938	0,917	0.921
	PB_2	0.876				
	PB_3	0.887				
	PB_4	0.854				
	PB_5	0.822				
Psychological ownership (PO)	PO_1	0.844	0,685	0,897	0,847	0.853
	PO_2	0.790				
	PO_3	0.830				
	PO_4	0.845				
People (PEO)	PEO_1	0.818	0,699	0,903	0,856	0.859
	PEO_2	0.864				
	PEO_3	0.802				
	PEO_4	0.858				
Premises (PRM)	PRM_1	0.865	0,750	0,923	0,889	0.890
	PRM_2	0.874				
	PRM_3	0.860				
	PRM_4	0.865				
ICT systems (ICT)	ICT_1	0.856	0,742	0,920	0,884	0.886
	ICT_2	0.887				
	ICT_3	0.864				
	ICT_4	0.838				
Customer services (CUS)	CUS_1	0.853	0,730	0,916	0,877	0.877
	CUS_2	0.867				
	CUS_3	0.863				
	CUS_4	0.836				

(Source: The authors)

Furthermore, with CMV value of 48.50%, it can be concluded that the data collected are non-bias.

In Table 8, the value of Root mean square residual covariance—RMS$_{theta}$ of 0.109, less than 0.120, implies that the model is well-fitting (Hair et al., 2017). Furthermore, with the Coefficients of determination—R^2 of PB and CR of 0.769 and 0.737, respectively, it can be suggested that the model has moderate and substantial explanatory power (compared to the threshold of 0.5 for moderate and 0.75 for substantial as Hair et al., 2017, 2019). Furthermore, the Predictive relevance value—Q^2 values of PB and CR are 0.573 and 0.522, higher than the threshold of 0.35, and it can be concluded that the model has large predictive accuracy.

Table 7. Discriminant validity (HTMT)							
	CR	**PB**	**PO**	**PEO**	**PRM**	**ICT**	**CUS**
Customer Retention							
Perceived benefit	0.868						
Psychological Ownership	0.613	0.554					
People	0.716	0.715	0.483				
Premises	0.855	0.897	0.551	0.688			
ICT systems	0.813	0.865	0.518	0.657	0.874		
Customer Services	0.859	0.899	0.587	0.680	0.888	0.850	

(Source: The authors)

Detailed in Table 8, the findings show the direct positive effect of PEO, PRS, ICT, CUS, PB, and PO on CR with Path coefficients in the range of 0.109 to 0.265 and significant p-values less than 0.05 (or < 5%). Simultaneously, the figures show the indirect contributions of service operational factors (i.e., PEO, PRS, ICT, CUS) to the effect of PB on CR (detailed in the range from 0.036 to 0.084) that make up the total effect of PB on CR of 0.265. Consequently, it can be concluded that hypotheses H1a, H1b, H1c, H1d, H2a, H2b, H2c, H2d, H2e and H3a are accepted.

Therefore, the model can be estimated as shown in Figure 2a.

To examine the moderating role of PO on the effect of PB on CR, the construct PO*PB, which represents the interaction effect of PB and PO, is added (see Figure 2b).

The Structural model with PO*PB effect on CR with figures detailed in Table 9 and Figure 2b demonstrate that PO significantly and positively moderates the effects of PB on CR. As a result, it makes R^2 of CR increase from 0.737 to 0.742 (i.e., 0.68%). Out of expectation, the moderating role of PO on the relationship between PB and CR surprisingly leads to the significant strengthening of the effect of service operational factors on CR. Notably, the path coefficients of PEO, PRM, ICT and CUS on CR increase by 28%, 45%, 60%, and 49%, respectively, while those on PB are constant.

Therefore, the proposed path model after adding PO moderator is in the form as follows:

Furthermore, recalling hypothesis 3b, which suggested that PO strengthens the positive relationship between PB and CR, the figures in Table 9 reveal a significant positive interaction between PB and CR. In high versus low PO presence, the relationship between PB and CR will be more robust (as shown in Figure 3). Therefore, hypothesis H3b is accepted.

5.2. Discussions

It is interesting to note that all hypotheses in this study are accepted. The research outcomes may affirm that service operational factors significantly contribute to PB and CR in supermarket chains, where PB also plays a critical mediating role between the relationships according to the interpretation of the commitment-trust theory developed by Morgan and Hunt (1994).

Remarkably, these research findings are consistent with that of Mazumdar (1993), who claims that consumers often purchase based on their careful consideration of what benefits they obtain". Moreover, these results reflect the concepts of Ahmad and Buttle (2002), Bojei et al. (2013), Huarng and Yu (2020), Ray and Chiagouris (2009), Kanwal and Rajput (2014), and Sharmeela-Banu et al. (2012), who argue that operational factors may influence CR in retailing. Although the research findings seem consistent with previous studies, which found that customers can gain benefits when shopping in physical stores, it is based primarily on an operations perspective to discuss the

| Table 8. Summary of the Structural model (without moderating effect of PO)					
Metrics		**Estimated Model**			
Root mean square residual covariance – RMS$_{theta}$		0.109			
Coefficient of Determination – R2	**Perceived benefit**	0.769			
	Customer retention	0.737			
Predictive relevance – Q2	**Perceived benefit**	0.573			
	Customer retention	0.522			
Hypothesis	**Outer relationships**	**Path coefficients**	**t-value**	**p-value**	**Remarks**
H1a	PEO → CR	0.130	4.834	0.000	Supported
H1b	PRM → CR	0.189	5.522	0.000	Supported
H1c	ICT → CR	0.109	3.187	0.002	Supported
H1d	CUS → CR	0.189	5.600	0.000	Supported
H2a	PEO → PB	0.135	4.406	0.000	Supported
H2b	PRM → PB	0.301	6.055	0.000	Supported
H2c	ICT → PB	0.234	4.712	0.000	Supported
H2d	CUS → PB	0.317	6.210	0.000	Supported
H2e	PB → CR	0.265	4.114	0.000	Supported
	PEO → PB → CR	0.036	2.911	0.004	Supported
	PRM → PB → CR	0.080	3.463	0.001	Supported
	ICT → PB → CR	0.062	3.220	0.001	Supported
	CUS → PB → CR	0.084	3.445	0.001	Supported
H3a	PO → CR	0.125	3.875	0.000	Supported

(Source: The authors)

dimensions of PB and the relationship of PB and CR in an omnichannel retailing context. The possible sources of PB and CR are service operational factors, which have been proved through the survey results.

Indeep, the current study has demonstrated similarity with existing research that retail staff as "brand ambassadors" in-store can create the majority source of customer value (Berman et al., 2018; Buttle, 2009; Pal & Byrom, 2003; Zentes et al., 2017). The article also develops their concepts according to the view of customers that supermarket staff have *high competence*, for example, being well-educated, knowledgeable, professional, intelligent and skilled, which satisfy customers when shopping. Additionally, the results demonstrated that staff's *positive interaction* and *working attitude* are helpful for shoppers with respect and empathy to offer personal attention, meet their requirements, or exceed their expectations. Furthermore, respondents show that the *staff's honesty instils* confidence in the customers and shows great interest and motivation to resolve their difficulties or problems.

The results of this study support evidence from previous observations that the factors of the premises are critical aspects of supermarket service operations in supermarkets (e.g., Blut et al., 2018), in which *accessibility* was one of the prerequisites for convenient location of stores to attract customers. Additionally, the format and design of the store with *safety and security* conditions, *a comfortable shopping environment* with modern infrastructure, additional suitable facilities, and physical equipment are mandatory requirements and competitive advantages of retailers to improve customer convenience and trust. Practically, since the early century 2000,

Figure 2. (A)the estimated model (without moderating effect of PO). (b) the estimated model (with moderating effect of PO).

(Source: The authors)
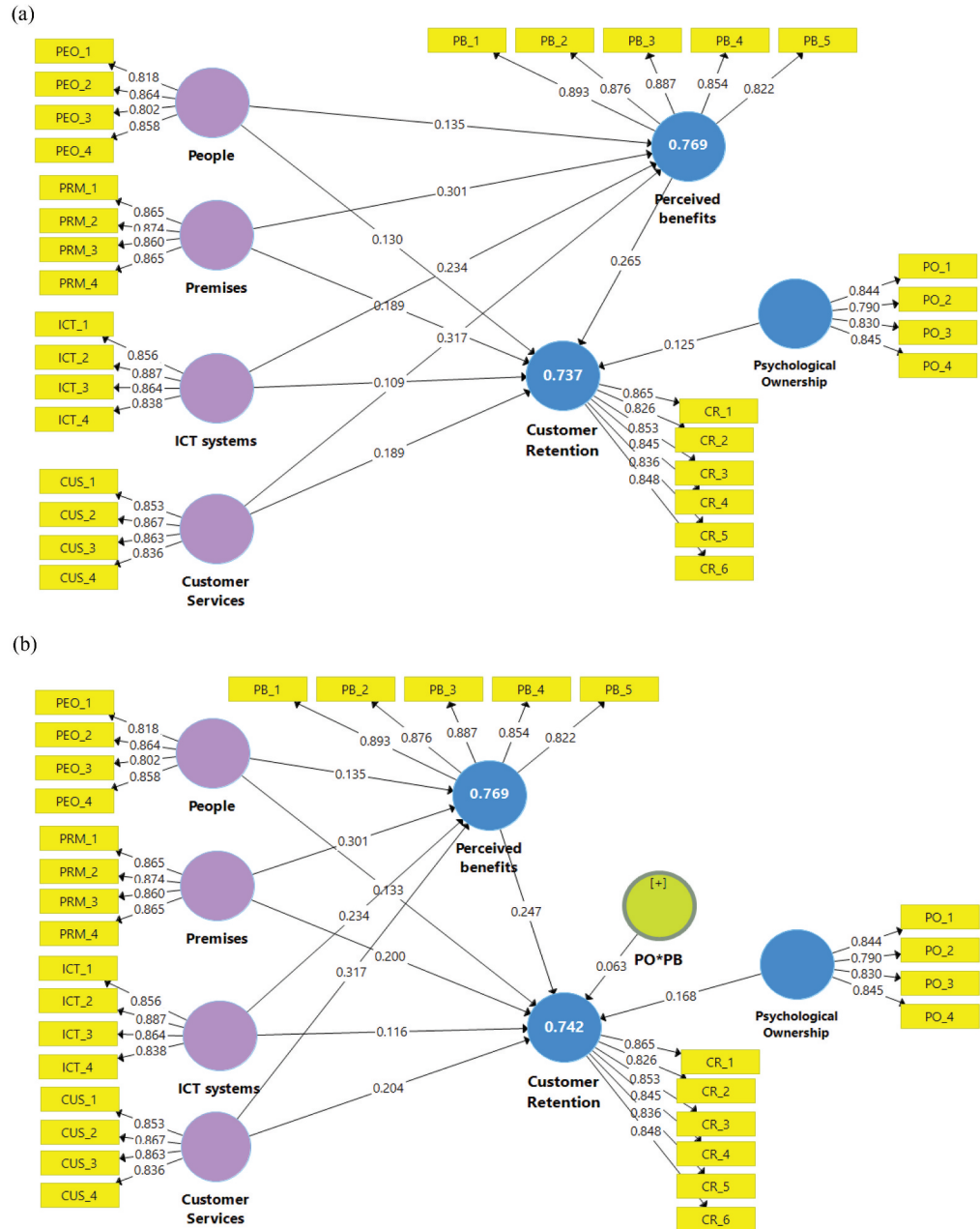
convenience and other entertainment services in the retail business have been combined to create an enjoyable shopping environment for customer experience as a common trend (Ayad & Rahim, 2013; De Nisco & Napolitano, 2006; Sit et al., 2003). Currently, retailers invest more in their stores as an *entertainment ecosystem*, integrating multi-services in one place for customer experience and enjoyment to attract customers and increase CR.

In addition, thanks to ICT systems, online shopping is a vivid experience generated to increase customer convenience (Alexander & Kent, 2020; Grewal et al., 2020). Consistent with the literature, this research discovers that shoppers feel more satisfied and convenient when shopping in any physical store or supermarket website. Practically, ICT enhances the speed of the shopping process, primarily generating effectiveness and helpfulness for customers in searching and order-ing anytime, anywhere without having to go to the supermarkets, even during the COVID-19

Table 9. Summary of the Structural model (with moderating effect of PO)

Metrics					Estimated Model
Root mean square residual covariance – RMS_{theta}					0.109
Coefficient of Determination – R^2	Perceived benefit				0.769
	Customer retention				0.742
Predictive relevance – Q^2	Perceived benefit				0.575
	Customer retention				0.521

Hypothesis	Outer relationships	Original weight	t-value	p-value	Remarks
H1a	PEO → CR	0.167	4.891	0.000	Supported
H1b	PRM → CR	0.274	5.708	0.000	Supported
H1c	ICT → CR	0.174	3.372	0.001	Supported
H1d	CUS → CR	0.282	5.790	0.000	Supported
H2a	PEO → PB	0.135	4.209	0.000	Supported
H2b	PRM → PB	0.301	6.338	0.000	Supported
H2c	ICT → PB	0.234	4.784	0.000	Supported
H2d	CUS → PB	0.317	6.470	0.000	Supported
H2e	PB → CR	0.247	4.257	0.000	Supported
	PEO → PB → CR	0.033	3.036	0.003	Supported
	PRM → PB → CR	0.074	3.398	0.001	Supported
	ICT → PB → CR	0.058	3.225	0.001	Supported
	CUS → PB → CR	0.078	3.578	0.000	Supported
H3a	PO → CR	0.168	4.803	0.000	Supported
H3b	PO*PB → CR	0.063	2.546	0.011	Supported

(Source: The authors)

Figure 3. PO moderates the effect of PB on CR.

(Source: The authors)
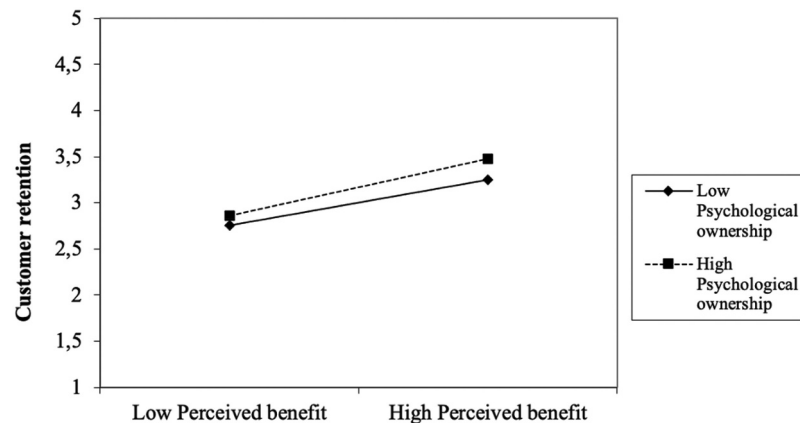
The most prominent finding to emerge from the analysis is that customer services of supermarkets can contribute to PB and CR. Practically, respondents confirm that they can benefit from additional after-sales services, whether they purchase online or in-store, and the effective handling of their complaints. In fact, experimental evidence has illustrated that supermarkets are more dominant than other retail channels because of customer care to maximize customer satisfaction and personalized services to motivate customers' positive emotions and repurchase. This result can be partially explained and supported by the concepts of Blut et al. (2018), Kumar et al. (2011), and M. Zhao and Wang (2021). Last but not least, this investigation of the effect of service operational factors on BP and CR was successful, as it identified store commitment as a dimension of customer service. These results may be supported by N. Slack et al. (2020), Bordoloi et al. (2019), and Patel et al. (2017), who also admit that services provided as commitment are indispensable to show consistent responsibilities of supermarkets to customers and ensure customer satisfaction.

Therefore, with the perception of the benefits of shopping in supermarkets or on-line, customers believe that they can be instantly satisfied with their purchases, save time and effort to make a purchase, gain more convenience and enjoyment and reduce risks. It also suggests a strong link between PB and CR when customers continue to repurchase or increase the frequency of shopping in supermarkets or via their preferred websites as their first choice. Although the study is based on an operations perspective, its findings also support previous research from a marketing point of view. From the data analysis, it can be inferred that the feeling of loyalty towards supermarkets, the willingness to say positive things about the supermarkets, recommend others to do shopping in supermarkets or the websites, and give suggestions to improve the quality of products and services of supermarkets of customers are derived from services and benefits received (detailed in Table 2).

An interesting newly finding of this study is that PO significantly affects CR and positively moderates the effect of PB on CR, which is the first time discussed in the retail context. Undoubtedly, the hypothesis that a customer's sense of ownership for a store or its website, an unpaid product, or a service can motivate him or her to revisit the store for purchasing is partially supported. In this study, familiarity is one of the dimensions of PO, which is redefined as the strong sense of connection with the supermarket(s) or their websites and a good knowledge of the store

and its products and services so well. Besides, with the sense of closeness with supermarkets, customers usually feel liking and want to spend time with them. From the data analyzed, the research has also shown that the sense of familiarity and closeness are indispensable components of PO, which strongly influences repurchase intention and increases the relationship between PB and CR in the retail environment.

Surprisingly, an unexpected finding is that while PO moderates PB's effect on CR, it also increases the effects of service operational factors on CR. It would be exciting to do further research in the future.

5.3. Implications

5.3.1. Theoretical Implications
This research is an excellent opportunity to examine the relationship-trust theory in the retail context from the operations and customer perspectives. Based on the review of existing concepts and studies, the research also expands and develops definitions of the components of service operations, namely People, Premises, ICT systems, and Customer services with relevant dimensions in the retail and service industry. The observational study suggests that service operational factors significantly contribute to PB and CR in supermarkets, the typical format of the omnichannel retailer. It also illustrates the mediating role of PB in the relationships between service operational factors and CR. Moreover, the positive effects of PO on CR and its moderating role in the relationship between PB and CR are first studied in an emerging country's retail industry. Statistically, the study has demonstrated that the relationship between PB and CR is more robust when PO is high. In other words, it can therefore be assumed that a customer with a high level of PO will pay more attention to the benefits and will be more likely to retain shopping in certain supermarkets.

5.3.2. Practical implications
The findings of this study have several important implications for business practice. First, these findings may help us understand the significant roles of store service operations, which primarily create customer benefits and enhance CR in addition to attractive products, reasonable prices offered, and marketing programs in supermarkets. Nowadays, the point of view that customers pay for trust and commitment (Morgan & Hunt, 1994) or that customers are not attracted to the best products or lowest price instead of what benefits they will get against their payment (Mazumdar, 1993), is still prominent. So, consistent with these views, the research critically implies that omnichannel retailers should focus on service operational factors to maximize customer benefits and increase CR. One issue emerging from the findings is that PO can predict positive consumer attitudes or behaviour. Therefore, this combination of results provides some support that retailers should understand the motives and routes of PO, concentrate on investment in highly skilful staff, effective and convenient process, comfortable shopping environment, and quality services for customer experience to gain customer trust, satisfaction, perceived benefit, and CR to maintain the long term relationship as the commitment-trust framework.

6. Conclusions
The study has discussed the effects of service operational factors, i.e., People, Premises, ICT systems, and Customer services, on PB and CR and the mediating role of PB in the relationships between service operational factors and CR based on commitment-trust theory in a retailing context. The present study was also conducted to investigate how PO affects CR and moderates the effect of PB on CR. One of the most prominent findings of this study is that People, Premises, ICT systems, and Customer services integrated directly and indirectly affect CR through PB. The second significant finding is that PO positively affects CR and significantly moderates the effect of PB on CR. This research provides insights into supermarket service operational factors and how they contribute to customer benefits and improve CR. It allows the suggestion that store service operations greatly support the success of loyalty programs in supermarkets. Taken together, this research implies that understanding the effects of service operational factors and PO on PB and CR and the role of PO in promoting the relationship between PB and CR allows supermarket managers to predict trends in CR through attitudinal and behavioural dimensions.

In general, this study was conducted in Vietnam, a country with a retail market and a shopping culture quite similar to those of ASEAN countries, so the results of this study may reflect the whole picture of the region. However, it is not convincing enough to be generalized to all emerging countries. Another limitation of this study is that the authors did not consider and examine how PO moderates the effects of each service operating factor on CR. Besides, the authors neglected to discuss the changes that affect the level of service operational factors on CR, although they were surprisingly discovered during the data analysis process.

Notwithstanding these limitations, this would be a fruitful area for establishing a set of service operational quality measurements which can be applied to all omnichannel retailers. In addition, further research should be undertaken to investigate how PO moderates the effects of each service operating factor on CR and explore the optimistic possibility that PO can strengthen the relationships between service operational factors and CR while it moderates the effect of PB and CR in any retail format.

Author details
Diep T.N. Nguyen[1,2]
ORCID ID: http://orcid.org/0000-0001-7403-0147
Minh Pham[2]
E-mail: minh.p@ou.edu.vn
ORCID ID: http://orcid.org/0000-0003-4200-0810
Miloslava Chovancová[1]
ORCID ID: http://orcid.org/0000-0002-9244-9563
Sinh Duc hoang[3]
ORCID ID: http://orcid.org/0000-0001-6382-4056
Santiago Gutierrez-Broncano
[1] Faculty of Management and Economics, Tomas Bata University in Zlín, Vietnam, Czech Republic.
[2] Faculty of Business Administration, Ho Chi Minh City Open University, Vietnam.
[3] Ho Chi Minh City University of Foreign Languages and Information Technology, Vietnam.

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Correction
This article has been corrected with minor changes. These changes do not impact the academic content of the article

Note
1. Age of respondents at interviewing date.

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