

Doctoral Thesis

Customer Retention in Supermarkets - An Evidence from Retail Market in Vietnam

Retence zákazníků v supermarketech - poznatky z maloobchodního
trhu ve Vietnamu

Author: Nguyen Thi Ngoc Diep
Study program: 6208 Economics and Management
Study course: 6208V038 Management and Economics
Supervisor: doc. Ing. Miloslava Chovancová, CSc.

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ABSTRACT

In a world with enormous opportunities and challenges from the technology revolution and the lingering COVID-19 pandemic, customer retention is more important than ever for retailers. While marketing and advertising are limited in the tough time, retail operations become the salvage and dominance with the increasing sales recovered in 2021 thanks to food and essential business.

Currently, many researchers and reporters demonstrate that shopping behaviour has changed from offline to online and a combination of online and offline for the consumption of food and essential goods due to the ease of access to the Internet and the ownership of mobile devices, which has stimulated them to shop in modern retail channels more than ever. However, in recent years, minimal attention has been paid to the effects of store operations on changes in shopping behaviour in retail. In particular, the contribution of store operations to customer benefits and customer retention is often less known by shoppers and is hardly measured accurately and adequately by management. Furthermore, the psychological effect on customer retention in supermarkets does not seem to be thoroughly discussed in existing studies.

Therefore, this thesis seeks to fill the gaps between academic knowledge and business practices in retail. With the foundation of commitment-trust theory, the thesis aims to develop and validate the operational model to increase customer retention in supermarkets by investigating the direct and indirect effects through perceived benefits of store's Operational factors (classified into Merchandise-related and Service-related factors) under moderating role of psychological ownership. This study is conducted in Vietnam, an emerging country in the APAC, as empirical evidence.

For research achievement, qualitative research is conducted through in-depth interviews with 32 supermarket managers to obtain expert advice. Furthermore, a quantitative study is conducted through 493 questionnaire surveys to observe shoppers' habits, behaviour, attitudes, beliefs, prejudices, preferences, motivations, and opinions of shoppers for store's Operational factors, perceived customer benefit and customer retention in supermarkets. Partial Least Squares Structural Equation Modelling is associated with examining the cause-effect relationships among the factors through the relevant indicators.

The study findings offer an operational view of how store's Operational factors significantly contribute to customer retention. Simultaneously, it demonstrates how Perceived benefit mediates the relationships between the Operational factors and Customer retention and how Psychological ownership moderates the effect of Perceived benefits on Customer retention in supermarkets. Practically, research findings can be a reliable reference for researchers and professionals in the retail industry to forecast Customer retention based on store operations improvement and customers' Psychological ownership.

ABSTRAKT

Ve světě, kde technologická revoluce a pandemie COVID-19 přináší obrovské příležitosti i výzvy, je pro maloobchodníky udržení zákazníků důležitější než kdykoli předtím. Zatímco marketing a reklama jsou v těžké době omezené, maloobchodní operace se stávají záchranou a dominancí s rostoucími tržbami obnovenými v roce 2021 díky potravinám a nezbytnému obchodu.

V současné době mnoho výzkumníků a reportérů dokládá, že nákupní chování se změnilo z offline na online, a kombinaci online a offline pro spotřebu potravin a nezbytného zboží, díky snadnému přístupu k internetu a vlastnictví mobilních zařízení, což je stimulovalo k nakupování v moderních maloobchodních kanálech více než kdy jindy. Vlivu provozu prodejen na změny nákupního chování v maloobchodě však byla v posledních letech věnována minimální pozornost. Zejména přínos provozu prodejen k přínosům pro zákazníky a k udržení zákazníků je nakupujícím často méně známý, a management jej jen stěží přesně a adekvátně měří. Navíc se zdá, že psychologický vliv na udržení zákazníků v supermarketech není v existujících studiích důkladně diskutován.

Proto se tato práce snaží zaplnit mezery mezi akademickými poznatky a obchodní praxí v maloobchodě. Na základě teorie důvěry a závazku si práce klade za cíl vyvinout a ověřit provozní model pro zvýšení retence zákazníků v supermarketech prostřednictvím zkoumání přímých a nepřímých účinků prostřednictvím vnímaných výhod provozních faktorů prodejny (rozdělených na faktory související se zbožím a faktory související se službami) za moderující role psychologického vlastnictví. Tato studie je prováděna ve Vietnamu, rozvíjející se zemi v oblasti APAC, jako empirický důkaz.

Pro dosažení výzkumných cílů je kvalitativní výzkum prováděn prostřednictvím hloubkových rozhovorů s 32 manažery supermarketů za účelem získání odborných rad. Dále je proveden kvantitativní výzkum prostřednictvím 493 dotazníkových šetření s cílem sledovat zvyky, chování, postoje, přesvědčení, předsudky, preference, motivace a názory nakupujících na provozní faktory prodejen, vnímaný užitek pro zákazníky a udržení zákazníků v supermarketech. Modelování strukturálních rovnic metodou částečných nejmenších čtverců je spojeno se zkoumáním příčinných vztahů mezi faktory prostřednictvím příslušných ukazatelů.

Výsledky studie nabízejí operativní pohled na to, jak provozní faktory prodejny významně přispívají k udržení zákazníků. Současně ukazuje, jak vnímané výhody zprostředkovávají vztahy mezi provozními faktory a retencí zákazníků a jak psychologické vlastnictví moderuje vliv vnímaných výhod na retenci zákazníků v supermarketech. Prakticky mohou být výsledky výzkumu spolehlivým vodítkem pro výzkumné pracovníky a odborníky v maloobchodě při prognózování retence zákazníků na základě zlepšení provozu prodejen a psychologického vlastnictví zákazníků.

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LIST OF SYMBOLS, ACRONYMS & ABBREVIATIONS

APAC: Asia-Pacific

ASEAN: Association of Southeast Asian Nations

CR: Customer retention

CSR: Corporate social responsibility

Gen-X: Generation X

Gen-Y: Generation Y

Gen-Z: Generation Z

ICT: Information and Communication Technology

ISO: International Standard Organization

JASP: a free and open-source program for statistical analysis supported by the University of Amsterdam. It offers standards analysis procedures in both classical and Bayesian form, similarly to SPSS.

Mil.: million

β : beta – path coefficient (in the structural model)

PB: Perceived benefit

PO: Psychological ownership

PLS-SEM: Partial Least Squares Structural Equation Modeling

RO: Research objective

RQ: Research question

SKU: Stock keeping unit

SmartPLS: software with a graphical user interface for variance-based structural equation modeling using the partial least squares path modeling method, to estimate models with their data by using PLS-SEM

STDEV: Standard deviation

USD: USA Dollar (The United States of America's currency)

VND: Vietnam Dong (Vietnam's currency)

WTO: World Trade Organization

1. INTRODUCTION

1.1. Retail World Overview

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 and Britain, 2004), plays a crucial role in the supply chain (Lysons and Farrington, 2020). The last three decades have witnessed a growing trend toward modern retail with significant transformations and innovations (Hänninen, Kwan and Mitronen, 2021). In the current time, retail is in the mature stage with various formats such as convenience stores, conventional supermarkets, superettes, hypermarkets, food-based superstores, combination stores, box (limited-assortment stores), hard discount stores, warehouse stores (Berman, Evans and Chatterjee, 2018; Gauri et al., 2021; Zentes, Morschett and Schamm-Klein, 2017). By bringing customers more and more experiences and benefits, retail industry contributes a significant sales proportion of the global economy (Alexander and Cano, 2020; Dunne, Lusch and Carve, 2011). A recent Statista report (2021a) shows that global retail sales in 2021 have reached USD23.76 trillion and are predicted to grow to USD25.12, USD26.58 and USD27.90 trillion in 2022, 2023, and 2024, respectively. Statista (2021a) also reveals that the top four international leaders in the retail market are the United States, India, China and Germany, and the top five famous brand names by retail revenue in 2019 are Walmart, Amazon, Costco, Kroger (USA) and Schwarz (Germany).

Regarding the trigger of innovations in retail, the breakthrough in ICT generates the introduction of e-shopping as one of the significant achievements in the retail industry (Shankar et al., 2021). Although physical stores account for most worldwide retail sales, the e-commerce channel has contributed more significantly to total annual retail revenue by more than 20% (Statista, 2021a). While e-Retailers are rapidly encroaching the retail market over the world, the omnichannel retailer can be recognized as superior, creating a more substantial competitive advantage with the excellent combination of instore and online shopping, which can bring more benefits to consumers (Alexander and Cano, 2020; Turner and Gardner, 2014).

Because the COVID-19 pandemic is still ongoing and causes many difficulties for the global economy, the percentage of consumers who regularly shop in physical stores has decreased in the last two years. However, omnichannel retailers have attempted to best adapt to customer needs and desires, while their shopping behaviour has changed remarkably. Therefore, customers can order groceries and other essential products on supermarkets' websites instead of visiting physical stores for pick-up (Statista, 2021c). As a positive result, with the salvage of the online channel, the grocery sales share of supermarkets and hypermarkets worldwide is estimated to be stable at 13.6% in 2021 (Statista, 2021d). Moreover, in a recent worldwide survey conducted by PWC Global

(2021), consumers shopping for non-food products in physical stores are still increasing impressively. Notably, up to 50% – 55% of respondents from China, India, Malaysia, Singapore, Thailand, and the United States said they often buy clothes, books, or electronics daily or weekly in physical stores. In comparison, this percentage of Vietnam is 67%, much higher than the global average of 46% (PWC Global, 2021).

Regarding changes in shopping behaviour, Statista (2021f) reports that almost all shoppers in APAC countries (except Japan) have experienced shopping in new ways since the pandemic began. In Table 1.1, most consumers in the surveyed countries preferred a combination of online and offline channels; others stated that they only shop online. Surprisingly, while 45% of Japanese consumers prefer shopping at the physical store only, 42% of Vietnamese state that they no longer shop in physical stores.

Table 1. 1: Change in shopping behaviour in APAC countries (in %)

Country	Mix both instore and online	Switch from instore to online only	Still shop instore only
China	67	26	7
Japan	51	4	45
India	56	31	12
South Korea	54	38	8
Indonesia	60	24	15
Thailand	67	23	10
Singapore	70	17	12
Vietnam	50	42	8
Malaysia	68	26	6
Philippines	63	25	12

Source: Statista (2021f)

Although Vietnam's economic conditions and cultural characteristics are relatively similar to those of ASEAN (such as Thailand, Singapore, Malaysia, or the Philippines), or different from those of the more prominent countries in APAC, for example, China, South Korea and India, the Vietnamese shopping behaviour has changed as the same trend as other countries in the region in recent time. Furthermore, in emerging countries such as China, Hongkong, India, Indonesia, Korea, Malaysia, Taiwan, and Vietnam, accompanying modern stores or e-commerce platforms, wet markets and traditional grocery stores are still existing and aggressive rivals of modern retailers (Gorton, Sauer and Supatpongkul, 2011; Hermawan, 2018; Huang, Tsai and Chen, 2015; Yi and Gim, 2018; Si, Scott and McCordic, 2019). Traditional retail channels also have

numerous loyal customers; therefore, researchers predict that such traditional retail formats will continue to be dominant and formidable opponents of omnichannel retailers in the future in these countries (Yuan, Si, Zhong, Huang and Crush, 2021).

1.2. Research Gap

Retailing is always a critical sector in any economy, and rapidly changing markets, businesses, and consumer shopping behaviour (Hübner, Amorim, Kuhn, Minner, and Van Woensel, 2018). As an inevitable trend of the 4.0 technology revolution, it deals with novel challenges and complexities (Caro, Kök, and Martínez-de-Albéniz, 2020; Mou, Robb and DeHoratius, 2017). However, the COVID-19 pandemic strongly negatively impacts people's lives and the global economy and, in fact, also severely damages retailing (Roggeveen and Sethuraman, 2020a). Practically, these drastic changes in consumer psychology, shopping behaviour and habits due to the major events in recent years, and how retailers adapt to retain their customers have inspired and attracted many scholars in the retail field especially.

1.2.1. Customer Retention and Its Antecedents in Retailing studies

In previous studies and existing concepts of customer relationship lifecycle, many scholars assume that Customer acquisition, Customer retention (CR), and Customer development is the primary responsibility of Marketers to improve customer value and engagement (Kotler and Armstrong, 2016; Lamb, Hair and McDaniel, 2018). Kotler and Armstrong (2016) and Buttle and Maklan (2015) also emphasize that CR is one of the best key performance indicators recorded in metrics to measure the quality of enterprise products and services. However, the generalizability of many published studies on CR is based on a marketing perspective, while store operations play a critical role in business organizations (Chase and Jacobs, 2006; Slack, Brandon-Jones and Johnston, 2016; Stevenson, 2018). Especially in the retail industry, Berman, Evans and Chatterjee (2018), Cox and Britain (2004), Dunne, Lusch and Carver (2011), and Zentes, Morschett and Schamm-Klein (2017) argue that store operations create and deliver the initial value of products and add the extra services for customers. Operations management in supermarkets is extraordinarily complex but invisible to customers; therefore, measuring its influences on customers or CR during the business process is challenging.

There is no doubt that Customer Relationship Management (CRM) models, Marketing Mix, and Retail Mix are valuable resources and foundations for academics and practice in the retail business. Up to now, the research has mostly tended to focus on implementing strategies or marketing perspectives (such as Ahmad and Buttle, 2002; Dunne, Lusch and Carver, 2011; Kanwal and Rajput, 2014) for sales enhancement, customer satisfaction, loyalty or retention (Aparna, Krishna and Kumar, 2018). Several studies have revealed that operational factors

to improve store operations (Aparna, Krishna and Kumar, 2018; Ayad and Rahim, 2013; Pal and Byrom, 2003) directly or indirectly impact customer satisfaction, shopper benefits, or CR. However, these concepts have not been intensively discussed, developed, or examined in the context of the business world changing due to the technological revolution and the COVID-19 outbreak.

When presenting evidence-based management in the retail industry, Ayad and Rahim (2013) mention that success factors for retail stores are Marketing, Price, Customer, Competition, Strategy, Merchandising, Employees, Inventory, Store design, and Operations. However, Ayad and Rahim (2013) illustrate that almost all scholars focus on marketing as perhaps the most essential factor for retailing success, instead of store operations.

Recently, many researchers have investigated various approaches to the antecedents and consequences of customer satisfaction, loyalty, and retention with aspects of the marketing or marketing-operations interface (Ahmad and Buttle, 2002; Ranaweera and Neely, 2003; Sale, Mesak, and Inman, 2017). However, only a few studies focus on customer PB and CR generated by store operations as significant factors in retaining customers. Kanwal and Rajput (2014) illustrate that CR is due to customer satisfaction with the brand community, convenience of shopping, and personalized service in a retail marketing framework. While Patel, Guedes, and Pearce (2017) claim that operations management plays a critical role in retail survival, but their scope of research is just limited to new ventures. A machine-learning approach to forecast CR by Schaeffer and Sanchez (2020) is fascinating; however, it is based on historical data, does not reflect the efforts of retailers through their operational activities, nor predicts the likelihood of CR through attitudinal and behavioural dimensions.

Additionally, Bojei, Julian, Wel and Ahmed (2013, p.175) emphasize that *“Customer retention was operationalized as the extent to which customers felt they had demonstrated loyalty and commitment to a particular store measured via their repeat purchase behaviour.”* Despite the fact that, Bojei et al. (2013), from a marketing perspective, argue that CR can be measured by loyalty instead of store operations or customer benefits generated from store operating performance. In contrast, Hanaysha (2018) shows that perceived value significantly and positively affects CR and simultaneously mediates the relationships between independent variables, i.e., social media marketing, corporate social responsibility, sales promotion, and store environment, and CR in the retail industry.

Generally, there are many debates about the factors affecting CR, while most scholars are primarily based on the marketing facet instead of the operational perspective or the marketing-operations interface. Therefore, the scholars claim that customer satisfaction or loyalty plays a mediating factor affecting CR (Alkitbi, Alshurideh, Kurdi and Salloum, 2020; Bojei et al., 2013; Htwe, 2015; Kanwal and Rajput, 2014; Kim, 2019; Mahmoud, Hinson and Adika, 2018; Mathew, 2021; Mokhtar and Yusr, 2016). However, focusing on the relationship

between PB and CR, many authors also admit that the consequences of PB are CR (Hanaysha, 2018; Moeller, Fassnacht and Ettinger, 2009), repurchase intentions, or purchase decision (Saini and Sahay, 2014; Zhu, Goraya and Cai, 2018; Masri, You, Ruangkanjanases and Chen, 2021; Swoboda and Winters, 2021), patronage or patronage intention (Emrich, Paul and Rudolph, 2015; Goraya et al., 2020; Saini and Sahay, 2014), and even customer loyalty and satisfaction (Kim, Lee, Choi, Wu and Johnson, 2013; Kyguoliene, Zikiene and Grigaliunaite, 2017; Moeller, Fassnacht and Ettinger, 2009).

In summary, currently, it seems that there has been no comprehensive study on the integrated relationships between store operations, customer (perceived) benefits, and CR in the retail industry since the momentous events of the global economy.

1.2.2. Psychological Ownership and Shopping Behaviour in Retailing studies

In recent decades, there has been an increasing expansion of studies on the combination of psychological ownership (PO) and consumption behaviour (Peck and Shu, 2018; Liu and Fan, 2020; Nguyen, Hoang, Chovancova and Tran, 2022). In particular, Lessard-Bonaventure and Chebat (2015) demonstrate that product touch leads consumers' willingness to pay for the applicable extended warranty with PO mediating role. Furthermore, Liu and Fan (2020) show that the trials of new products will prompt consumers to buy without anticipation or planning previously due to the feeling of familiarity and ownership. According to Lee, Choi and Kim (2021), customer trust positively affects customers' PO, while customer satisfaction indirectly affects customers' PO through the mediating role of customer trust.

In contrast to earlier studies, Morewedge, Monga, Palmatier, Shu and Small (2021) emphasize that PO is positively associated with consumer demand and satisfaction, willingness to pay or word of mouth, and competitive business resistance in the era of technology innovation. Understanding PO is essential for firms to survive and adapt to constant changes in the business environment; however, almost all studies focus only on the effect of PO on customer satisfaction, trust, and improving customer purchase decisions. Only a few scholars mention the link between PO and customer loyalty and patronage or the likelihood of increasing CR. Theoretically, Fritze, Marchand, Eisingerich and Benkenstein (2020), Lessard-Bonaventure and Chebat (2015), and Liu and Fan (2020) present PO as a mediator in their studies, but have not yet tested whether there exists a moderating role of PO in the effects of the constructs.

Despite the narrow scope and limitations, the study by Nguyen et al. (2022) has discovered a moderating role of PO on the effect of perceived drawbacks on repurchase intention in the online shopping of Gen-Z. These authors provide scholars and practitioners with a new lens for observing shopping behaviour in the future, when Gen-Zers, born and grew up in the digital world with many

differences from the previous generations (Peck and Luangrath, 2018), become the dominant consumers of all retail channels. However, these studies have not discussed changes in shopping behaviour due to the macroeconomic impacts of technology and pandemic.

Furthermore, Kirk and Rifkin (2020) discuss PO and many unusual consumer behaviour patterns, such as hoarding and coping behaviour, of shoppers to deal with a difficult situation in the early days of the pandemic (at the beginning of 2020). However, these authors do not present any empirical evidence through an investigation whether PO affects consumer impulse buying behaviour during this tough period. Although, Kim, Kim, Yoo and Park (2021) and Lee, Choi and Kim (2021) present that there is a relationship between PO and consumers' behavioural and attitudinal outcomes, satisfaction, trust and perceived benefit, they have not examined the significant role of PO that can retain customers in retail. Therefore, the question is whether PO, as a critical factor that affects and changes shopping behaviour, will make customers perceive the benefits and continue to shop in retail channels in the new normal situation or not.

To sum up, existing studies have provided an advanced knowledge of retailing and store operations from marketing perspectives (Bijmolt et al., 2021; Sale, Mesak and Inman, 2017; Walter, 1999); however, they have not intensively discussed the insights of store operations impacting on customer benefits and retention. Additionally, in marketing, psychological factors and customer behaviour have been though extensively studied in recent decades (Peck and Shu, 2018), the relationships between operational factors, PO, and shopping behaviour in retail have not been thoroughly discussed since the pandemic outbreak in 2020. Therefore, there may currently be an enormous gap between business needs and academic retail knowledge, which is uncovered by reviewing existing studies. As a consequence, it is essential to conduct this thesis with the aim of increasing customer retention in retail through identifying key factors and investigating the relationships among them. Supermarket channel is research objective because it is the most prominent format of omnichannel that offers both instore and online shopping.

1.3. Motivations for the Study in Vietnam Retail

1.3.1. Vietnam Retail Landscape

The first supermarket was introduced in Vietnam in 1967 (Saigoneer, 2016); however, the establishment of the SAIGON CO.OP supermarket chain in 1996 officially marked the first development steps of Vietnam's modern retail industry (Saigon CO.OP, 2022). Since January 1, 2009, when Vietnam opened the retail market for foreign companies as a commitment to the WTO, which Vietnam joined in 2007, the Vietnamese retail industry has made impressive strides in scale and sales growth. By the end of 2021, Vietnam had 58 hypermarkets, 349 supermarkets, 5,850 convenience stores and mini supermarkets, and 3,469

speciality stores (Statista, 2021b); which contributed VND4.79 trillion (Statista, 2021b), equivalent to USD210 billion to Vietnam’s GDP despite a decrease of 3.8% compared with the previous year due to the severe outbreak of COVID-19 (Tong, 2022). The fast development of an emerging market, the explosive growth of young and digitally savvy consumers who increase possession of smartphones and access to the Internet, and efforts from the government and enterprises have helped the Vietnamese retail industry grow with significant achievements in recent years (Statista, 2021b). As a positive outcome, Vietnam retail is ranked 9th on the Kearney Global Retail Development Index (Portell et al., 2021). Mentioning the structure of the Vietnam retail market (Figure 1.1), there are three main groups: Traditional retailers (i.e., Wet markets and Grocery stores), Modern retailers (e.g., hypermarkets, supermarkets, department stores, shopping centres, convenience stores, or mini-supermarkets and speciality stores), and E-retailers (i.e., E-commerce platforms or non-store based retailers) (EVBN, 2018). Each type of retailer has many loyal customers or patrons; however, traditional retailers are still dominant in the country (Nielsen, 2019).



Figure 1. 1: Structure of the Retail Market in Vietnam
Source: EVBN (2018, p.15)

Since 2018, Vietnamese consumers have remarkably increased their shopping trips to modern retailers (EVBN, 2018; PWC Global, 2021; Statista, 2021b). Although consumers in urban cities prefer modern retail channels for shopping instead of wet markets, monthly shopping trips to supermarkets have decreased from 3.26 in 2008 to 2.45 in 2018 (Nielsen, 2019). The Statista (2020) survey shows that 50% of Vietnamese urban consumers reduce their frequency of visiting supermarkets, grocery stores, and wet markets due to the impacts of COVID-19 in 2020. In the Deloitte (2020) and EVBN (2018) reports, the main reasons for the decrease of shopping trips in supermarkets are (i) the remaining shopping habits in traditional markets as culture, (ii) the remarkable growth of e-commerce, (iii) the rapid expansion of convenience store chains. However, according to

Statista (2021e), up to 60% of Vietnamese consumers reduce their frequency of shopping in physical stores because of the strongly negative impact of COVID-19 since the beginning of 2020 and still lingering. In particular, the results of the survey in June 2021 of Statista (2021f) indicate that 42% of shoppers switch their shopping from instore to online only, and 50% of them mix both instore and online, and 8% remain still do shopping in physical store only.

1.3.2. Studies in Vietnam Retailing

Pertinent studies on consumer shopping behaviour in Vietnam's modern retail industry have only been concentrated since 2000. McDonald, Darbyshire and Jevons (2000) first researched shopping behaviour at modern retail stores in Hanoi (Vietnam). They discovered that consumers react positively to supermarkets when frequently shopping (more than three times a week) but buying only few products. Although the research is still limited in scope through qualitative methodology conducted with 97 interviewees, McDonald, Darbyshire and Jevons (2000) show that the reasons for consumers preferring to shop at supermarkets are novelty finding and the desire for foreign brands or due to preference for fixed pricing. In another study, Speece and Huong (2002) admit that only modern trade channels can attract customer patronage with shopping convenience, good services, attractive display, and reasonable prices despite mainly narrowing the attitude of mini-supermarket shoppers. Although both studies were conducted within Hanoi in the early development of Vietnam's modern retailing and cannot be generalized to the nationwide retail sector, they are open for further research in this field.

Previously, most studies in the Vietnamese retail sector have focused only on consumer shopping behaviour from a marketing perspective. Many scholars claim that customer satisfaction and loyalty are affected by trust, bonding, shared value and reciprocity, positively impacting customer satisfaction, communication, empathy (Hau and Ngo, 2012), and corporate reputation (Nguyen, Tran, Vu and Ngo, 2016). However, Doan (2020), Ha, Nguyen, Pham and Nguyen (2021), Nguyen, Nguyen and Tan (2021), Nguyen et al. (2022a), Pham, Tran, Misra, Maskeliūnas and Damaševičius (2018) have recently demonstrated numerous marketing and operational factors impacting CR, customer patronage, or repurchase intention. Their findings should be more generalized and interesting if their studies were not limited to online shopping surveys. Although Bui, Nguyen and Tran (2021), Nguyen (2020) and Tran (2020) pay more attention to omnichannel retailers in their studies, they have not thoroughly explored the effects of store operational activities, which can generate customer PB and support CR. Furthermore, the intergrated effects of store operations and customer psychology on shopping behaviour appear to have not been thoroughly investigated in the Vietnam retail context.

As the scope of this study, supermarkets, hypermarkets and superstores, interchangeably called stores or supermarkets, are targeted because they are the most prominent in Vietnam with significant purchasing power on the market

(Statista, 2021b; Tong, 2022) but their customer shopping trips appear to continue to decrease since the pandemic (Statista, 2021f). Due to the lack of references from previous studies on retail operations in Vietnam, it has been developed from imperative theories, principles, and models of previous scholars around the world along with updates in business practice. Therefore, the author hopes that the performance of this thesis will fill the gaps between academic knowledge and practical needs. Furthermore, the findings of the study may be expected to be a reliable reference for future retail studies and a useful resource for practitioners in Vietnam and emerging countries.

1.4. Research Problem

The world has just witnessed the success of the 4.0 technology revolution and struggled with the difficulties caused by the covid-19 pandemic. As a result, consumers' psychology and shopping behaviour change significantly (Naeem, 2020; Sayyida, Hartini, Gunawan and Husin, 2021; Schreiner and Baier, 2021). Especially online shopping or combination of instore and online instead of only online shopping, since the pandemic has become a dominant trend in most APAC countries (Statista, 2021f). More than ever, retailers pay more attention to operations when dealing with the constantly changing world, which has a positive and negative impact on the retail industry (Roggeveen and Sethuraman, 2020a; Shankar et al., 2021), to increase customer benefits and retain their customers for long term. Since marketing and advertising activities are limited within the online channel during the pandemic outbreak and the social distance (Hoekstra and Leeflang, 2020; Schreiner and Baier, 2021), omnichannel retailers, particularly supermarkets and hypermarkets, seek short-term operating approaches (e.g., delivery, inventory, and supply chain aspects) to ensure customers' essential needs through both instore and offline shopping (Pantano, Pizzi, Scarpi and Dennis, 2020). On the one hand, they are proactively attempting to predict customer behaviour after a pandemic as likely new-normal (Gauri et al., 2021; Hwang, Nageswaran and Cho, 2020; Roggeveen and Sethuraman, 2020a). Therefore, store operating performance with a customer-centric approach is a considerable long-term solution for supermarkets to increase customer benefits and retention (Gupta and Ramachandran, 2021; Roggeveen and Sethuraman; 2020a).

Furthermore, Di Crosta et al. (2021), Kirk and Rifkin (2020) and Naeem (2020) claim that due to consumer psychology (e.g., anxiety, depression, fear, hedonic buying of items, etc.) and unusual consuming behaviour of impulse buying during the COVID-19 pandemic, customers buy more products from retailers without any promotion. However, the authors have not mentioned PO as one of the critical factors that significantly influences consumer behaviour more frequently and examine whether PO has positive or negative effect on customer purchase intention or CR normal in omnichannel retailers.

Consequently, the problem is raised “*What are the key factors that increase customer retention in supermarkets for the long term?*”. With respect to the concerns mentioned above, this problem can be detailed in three dimensions as follows:

- *Whether Operational factors contribute to long-term Customer retention in supermarkets.*
- *Whether the Perceived benefit of shopping in supermarkets, generated by Operational factors, enhances Customer retention.*
- *Whether Psychological ownership of customers interferes with their perception of benefits and retention in supermarkets.*

1.5. Research Questions and Research Objectives

Based on the research gap and the research problem, *the main aim of this research is to develop and validate the retail operational model for supermarkets that increases customer retention in the long term.*

The research questions to address the research gap in the supermarket context are developed as follows:

- ***RQ1:** Which Operational factors contribute to Customer retention in supermarkets?*
- ***RQ2:** Does Perceived benefit, generated by Operational factors, enhance Customer retention in supermarkets?*
- ***RQ3:** Does Psychological ownership affect Customer retention and interfere with the relationship between Perceived benefit and Customer retention in supermarkets?*

To answer the research question and especially achieve the research main aim, the research objectives are set as follows:

- ***RO1:** To identify the Operational factors that directly affect Customer retention in supermarkets.*
- ***RO2:** To investigate the direct effect of Perceived benefit, generated by Operational factors, on Customer retention, or its mediating role in the relationships between Operational factors and Customer retention in supermarkets.*
- ***RO3:** To examine the direct effect of Psychological ownership on Customer retention and its moderating role on the relationship between Perceived benefit and Customer retention in supermarkets.*

1.6. Research Process

After identifying the research gap and research problem, to achieve the research main aim, the process of this thesis is designed as follows (Figure 4.1):

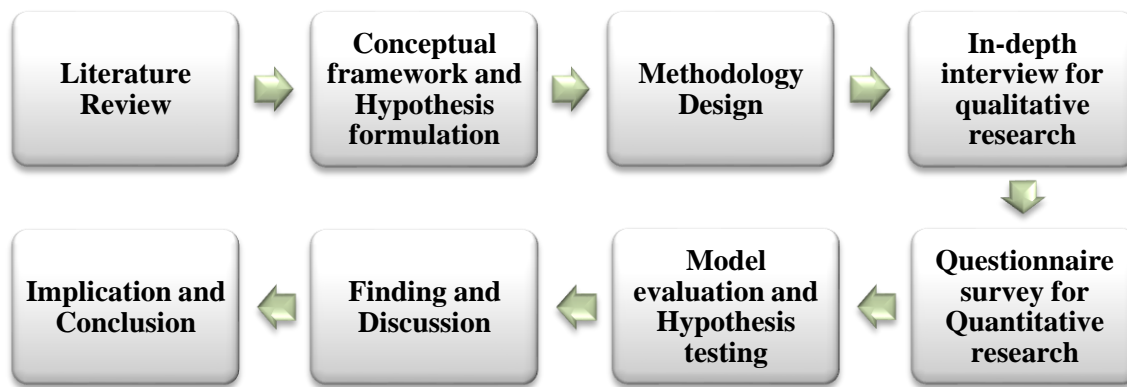


Figure 4. 1: Research process
 Source: The author's works

The research process presents the overall plan for answering research questions with clear objectives derived from these research questions, identifying reliable resources of materials and references, specification of the sources from which data are collected and data analysis approaches.

This research pursues pragmatism; therefore, it has started with an academic gap in retail store operations and aims to explore how the theories of marketing, retailing, and customer behaviour work in retailing practice. Then, it contributes to academic reference for further research and practical solutions for business practice. Materials used as the foundation of the thesis include books (textbooks and handbooks), articles listed by prestige journals (especially indexed by Web of Science and Scopus), governmental and industrial reports, or reports of reputation research organizations. The conceptual framework and hypotheses are also formulated based on literature review and research gaps. Methodological design is crucial to define the nature and scope of sequential research and provide a contextual background to deepen our understanding of the research problem (Saunders, Lewis and Thornhill, 2019). In addition, the combination of qualitative and quantitative research with partial least squares structural equation modelling (PLS-SEM) associated with the thesis supports the preparation of the interview protocol and formulation of the survey questionnaire, how to collect samples and select participants. The commitment to the code of conduct is also addressed during the interview process in the qualitative study. Two tools supporting data analysis in the thesis are JASP for descriptive statistics analysis and SmartPLS for hypothesis testing and hypothetical model evaluation.

2. LITERATURE REVIEW

2.1. Retailing and Retail Store Operations

2.1.1. Retailing – Definitions and Formats

While a variety of definitions of the term retailing have been suggested, this thesis will mention a description proposed by Cox and Britain, who present: “*Retailing is the sale of goods and services to the ultimate consumer for personal, family, or household use. Thus, retailing involves more than selling tangible products*” (2004, p.3). Furthermore, for Caro, Kök, and Martínez-de-Albéniz (2020), retailing consists of all activities associated with the goods sold to the end consumer; therefore, it links all actions and procedures needed from sourcing merchandise made elsewhere to delivery to customers’ hands with additional services included.

Based on the product life cycle theory, Cox and Britain (2004), Dunne, Lusch and Carver (2011), and Fernie, Fernie and Moore (2015) affirm that the retail life cycle consists of four stages: Innovation, Growth, Maturity, and Decline. However, Berman, Evans and Chatterjee (2018) and Zentes, Morschett and Schamm-Klein. (2017) argue that the retail life cycle evolves through five stages: Development, Introduction, Growth, Maturity, and Decline. The illustration of the innovation of the relevant formats over time is presented in Figure 2.1, with the key characteristics detailed in Table 2.1.

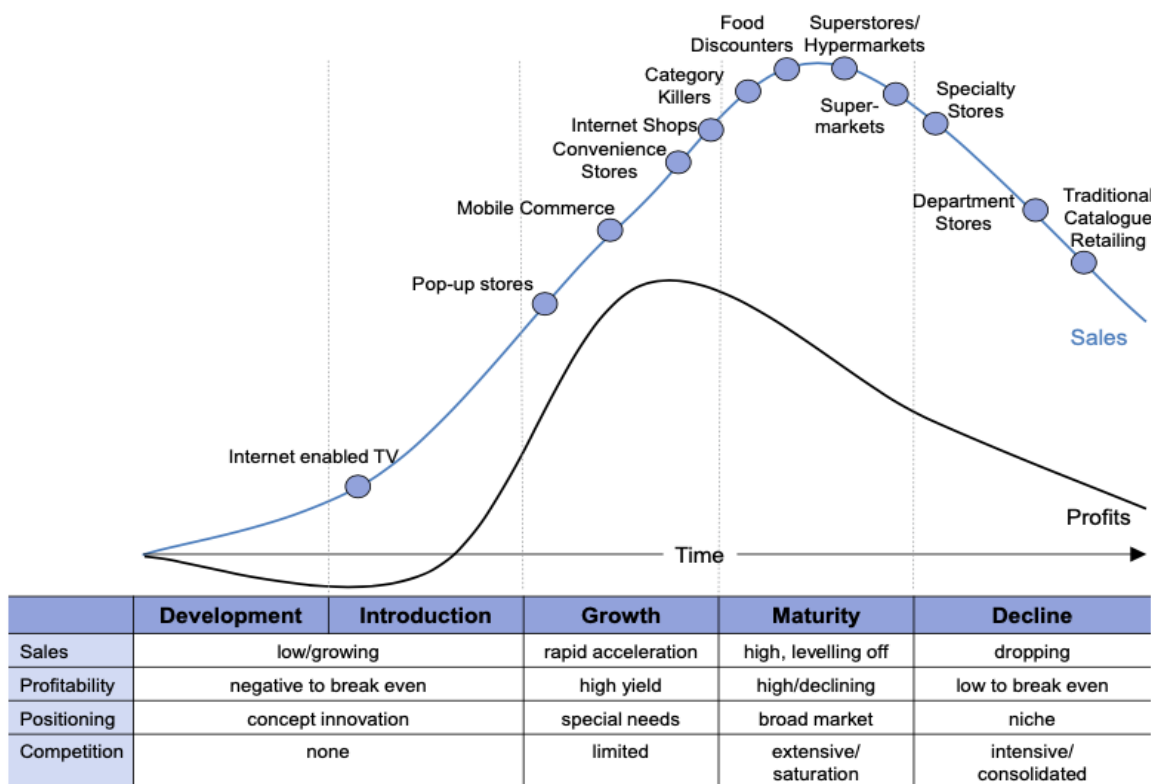


Figure 2. 1: The retail life cycle and formats

Source: Zentes, Morschett and Schamm-Klein (2017, p.29)

Table 2. 1: Characteristics of store-based formats

Criteria	Superettes	Conventional Supermarket	Superstore	Hypermarket	Convenience store	Hard Discounter
Size (m²)	100-399	400-1,000	1,000-5,000	5,000-30,000	200-400	500-1,500
Number of SKUs	20,000	20,000-30,000	30,000-40,000	40,000-150,000	1,000-3,000	700-1,500
Merchandise	Small to medium breadth and depth of assortment; average quality; manufacturer and store brands	Extensive breadth and depth of assortment; average quality; manufacturer and store brands	Full assortment of supermarket items, plus health and beauty aids and general merchandise	Extensive breadth and depth of assortment; full selection of supermarket and drugstore items, and general merchandise	Medium breadth and low depth of assortment, average quality	Medium breadth and low depth, heavy use of store brands (up to 90 %)
Percentage food	90%	75-90%	60-80%	60-70%	90%	80-90%
Prices	Average or competitive	Average or competitive	Competitive	Competitive	Average to above average or high	Very low
Atmosphere and Services	Average	Average/ Good	Average	Average	Average	Low
Location	City or neighbourhood	City or neighbourhood	Community shopping or isolated sites	Community shopping or isolated sites	Neighbourhood, city or highly frequented sites	Neighbourhood, traffic-oriented

Source: Adapted from Zentes, Morschett and Schamm-Klein (2017, p.30)

Piotrowicz and Cuthbertson (2019) and Zentes, Morschett and Schamm-Klein (2017) do not only mention omnichannel as a new form of retail in the retail life cycle, they have also presented it as a current phenomenon globally. Furthermore, Verhoef, Kannan and Inman (2015, p.176) define omnichannel as the integration of *“the numerous available channels and customer touchpoints, in such a way that the customer experience across channels and the performance over channels are optimised”*. In fact, omnichannel retailing is the highest level of channel integration, where the customer can shop in a physical store or through a store's shopping website or application. Moreover, recent studies by Iglesias-Pradas, Acquila-Natale and Del-Río-Carazo (2021), Peiris, Lakshika and Rasanjalee (2021) have also suggested that in the 4.0 technology revolution, the integration of sales channels into omnichannel is not only evolution to respond to changes in customer shopping behaviour, but also a salvage solution for retailers during the pandemic. Additionally, Mou, Robb, and DeHoratius (2017) present that physical retail stores are still the leading shopping destinations, and supermarkets and hypermarkets are still dominant, despite the boom of e-commerce and convenience store chains.

In recent years, retailers worldwide have adopted the omnichannel retail format as the interaction of supermarkets or hypermarkets with e-commerce (Bijmolt et al., 2021; Zentes, Morschett and Schamm-Klein, 2017). Therefore, this is also why the supermarket or hypermarket is the retail form selected in this thesis.

2.1.2. Retail Store Operations

Like any form of business, a retail business has three core functions: Operations, Finance, and Marketing (Stevenson, 2018), in which Operations function is central because the performance of products and services delivery positively affects customer satisfaction and customer loyalty for a long term (Kumar, Batista and Maull, 2011; Lawson, 2005; Slack, Brandon-Jones and Johnston, 2016). According to Vedamani (2017), operations in the retail business generally refer to all daily activities, which range from buying products for sale to accepting payment from customers and after sale services. With the strategy to compete on value, retailers offer their customers total experience, i.e., dominant merchandise assortments, pricing fairness, customer respect, time and energy saving and fun to shop (Berry, 1996; Lawson, 2005). In other words, given retail operations, Kandampully (2012) suggests that all aspects of modern retail business primarily concern product-related and service-related issues, from procurement to establishing stakeholder relationships. Additionally, Dunne, Lusch and Carve (2011), Levy, Weitz and Grewal (2019), and Zentes, Morschett and Schamm-Klein (2017), offer more detailed insight that retail store operations primarily involve site location with store layout and design, merchandise, pricing, visual merchandise, human resource, customer services, information systems, supply chain management, and communication mix or instore marketing.

When reviewing retail operations studies, Caro et al. (2020) emphasize the role of stores as one of the most exciting topics for further research. Retail operations involve numerous complicated tasks. As a result, what customers experience in stores or quality products and services delivered results from innumerable efforts of relevant functions, primarily from operations (Hübner et al., 2018). Based on the Resource-advantage theory (initially conceptualized by Hunt and Morgan in 1995, quoted by Hunt and Morgan, 2005), Dunne, Lusch and Carve (2011) imply that retailers can gain a competitive advantage by offering the best benefits to customers and/or having lower costs of operations by utilizing their resources through operations management.

Additionally, according to Walters (1999), while marketing extends its focus on becoming a leading strategy, operations functions have increased involvement to contribute to the corporate strategic achievements. Consequently, to be successful in a market with high competition, the integrative marketing–operations perspective is a critical requirement for enterprises to strengthen the bonds between their customers and products or services (Bijmolt et al., 2021; Mollenkopf, Frankel, and Russo, 2011; Sale, Mesak, and Inman, 2017; and Tang, 2010), especially in omnichannel retailers (Bijmolt et al., 2021). Therefore, neglect of the role of store operations in contributing to CR or customer loyalty, especially in supermarkets nowadays, maybe a limitation in academic research.

Although store operational activities mainly contribute to the customers' loyalty and significantly improve CR, they are usually invisible to customers (Bojei et al., 2013; Ray and Chiagouris, 2009; Reddy, Reddy and Azeem, 2011; Stevenson, 2018). To gain fascinating insight of retail store operations, its key dimensions will be defined in terms of '*Operational factors*' in this thesis, and classified into two groups, namely '*Merchandise-related factors*' and '*Service-related factors*' in the supermarket context based on the concepts of Dunne, Lusch and Carve (2011), Kandampully (2012), Levy, Weitz and Grewal (2019) and Zentes, Morschett and Schamm-Klein (2017). The following parts of this section describe the 'Merchandise-related factors' and 'Service-related factors' and their influences in more detail.

2.1.3. Key Merchandise-related Factors

For Varley (2006), Products in retail stores, so-called merchandise, are grouped into categories and assortments and classified by their nature and uses for customers' shopping. Merchandise is very different between store format and size (Vedamani, 2017). According to Zentes, Morschett and Schamm-Klein (2017), only supermarkets and hypermarkets have numerous categories and a wide assortment of merchandise for the shoppers' choice. Cox and Britain (2004, p.117) broadly define merchandising as one of the operating processes that cover selecting what kind of products and quality, purchasing how many items or SKUs at which price, and managing where and how long for displaying to succeed the business objectives. However, Zentes, Morschett and Schamm-Klein (2017)

narrowly explain that merchandising refers to how products with quality assured and reasonable price are well presented or displayed in a retail store for customers to purchase more items or products. Therefore, merchandise can enhance the customer experience in retail stores, primarily impact customers' positive perception of the stores, and increase customer shopping frequency and loyalty (Cox and Britain, 2004; Varley, 2006) in three key facets: Products, Presentation (Visual-merchandising), and Price, which are the results of operational process and visible for customers.

Products

According to a definition provided by Lamb, Hair and McDaniel (2018), products are both favourable and unfavourable things that customers want to purchase. In retail, products involve numerous critical issues such as categories, assortments, quality, packaging, and enclosed services (Berman, Evans and Chatterjee, 2018; Zentes, Morschett and Schamm-Klein, 2017). Regarding consumption trends, Buttle (2009) claims that customers buy a solution rather than a product; therefore, retailers usually serve a product-service bundle. However, Dunne, Lusch and Carve (2011) argue that retailers offer desired products with unique features or better values to create the best customer benefits and competitive advantages. Based on the retail format, Varley (2006, p.17) illustrates that customers can gain more benefits when shopping in supermarkets because of a wide range of products offered with assured quality, favourite brands, and additional pleasant services enclosed. Supporting Varley's (2006) concept, Borle, Boatwright, Kadane, Nunes and Shmueli (2005) and Emrich, Paul and Rudolph (2015) explain that the products offered in supermarkets are in a structured assortment with the reasonable number of available items and the diversity depending on customer expectations or favourite. Therefore, the variety of available products in supermarkets gives customers many choices and convenience, saving time and effort during the shopping process. Therefore, supermarkets with a multichannel assortment can generate more benefits for the customer and increase the opportunities for customer repurchasing.

While discussing product dimensions to retain customer repurchasing, scholars summarize that the *diversification assortment* is the most critical precedent (Blut, Teller and Floh, 2018; Ganapathy, 2017; Goraya et al., 2020; Vedamani, 2017; Zentes, Morschett and Schamm-Klein, 2017) to increase various opportunities for customers' choices and *physical experience* (Buttle, 2009; Ganapathy, 2017). While, Reddy, Reddy and Azeem (2011) argue that perceived product quality plays a crucial role in affecting customer choice for retail channels. Therefore, Blut, Teller and Floh (2018), Clotey, Collier and Stodnick (2008), Dunne, Lusch and Carve (2011), Ganapathy (2017), Reddy, Reddy and Azeem (2011) also affirm that the *quality assurance* of products in stores is one of the most critical factors formatting store image and loyalty. Furthermore, consistent with Varley's (2006) view, Berman, Evans and Chatterjee (2018), Blut, Teller and Floh (2018),

and Buttle (2009) confirm that customers usually choose supermarkets for shopping because they can find their *favourite brands*, even private brands that help them with cost-effectiveness. So far, this section has focused on the Product factor, and the following section addresses the way of product presentation in stores.

Presentation

Indeed, presentation, or visual-merchandising, which directly concerns product offer (Varley, 2006), is one of the most critical aspects of the merchandising process (Berman, Evans and Chatterjee, 2018; Vedamani, 2017; Zentes, Morschett and Schamm-Klein, 2017) to ensure that the products are well displayed on shelves or cabinets as standards for each category and relevant assortments, looking good and attracting customers to enhance the accessibility of customers in stores for sales increase (Garrido-Morgado, González-Benito, Martos-Partal and Campo, 2021; Varley, 2006). Product *availability* in sales areas is one of the prerequisites for display and is closely related to supermarket inventory management (Berman, Evans and Chatterjee, 2018; Fernie, Fernie and Moore, 2015). Pal and Byrom (2003) also claim that out-of-stock can negatively impact customer satisfaction. *Accessibility* of products is another critical principle of the product displayed in stores (Ganapathy, 2017; Garrouch, Mzoughi, Slimane and Bouhleb, 2011; Irfan, Siddiqui and Ahmed, 2019; Razu and Roy, 2019) for customers physically experiencing and picking up (Cox and Britain, 2004; Garrouch et al., 2011; Irfan, Siddiqui and Ahmed, 2019), and leading to customer satisfaction.

According to Cox and Britain (2004), Irfan, Siddiqui and Ahmed (2019), supermarket products are almost all displayed on shelves or in cabinets depending on their nature to maximize accessibility to customers by attracting their eyes and enhancing their purchase. However, presentation of the product shows the communication of the quality of the product and attracts customers to approach and experience. Especially, whether displayed on shelves or stored in refrigerators or freezers, the presentation of products in supermarkets always looks good and neat to ensure the *attractiveness* with a suitable location and relevant signages, as enablers of the eye-catching of customers (Amorim and Saghezchi, 2014; Kim, Lee, and Park, 2014). Furthermore, large format allows supermarkets to display products as categories and assortments in large quantities, the so-called *mass merchandising*, for open-to-buy, more choices, and easier bulk pickup (Ayad and Rahim, 2013; Cox and Brittain, 2004; Fernie, Fernie and Moore, 2015; Ganapathy, 2017), which may offer benefits to shoppers and increase CR.

Price

Another significant component of Merchandise-related factors is Price. From a marketing perspective, Price is one of the retail mix aspects of customer satisfaction and loyalty (Aparna, Krishna and Kumar, 2018; Jebarajakirthy et al.

(2020), a key element in the positioning strategy of a retail store (Lamb, Hair, and McDaniel, 2018), and a significant factor of the business strategy of any retailer (Ganapathy, 2017). However, according to Chatterjee (2020), price is one of the main product or service quality signals. Buttle (2009) argues that sometimes customer satisfaction declines, the price discount is a salvage solution to attract shoppers. In contrast, Pramaik, Prakash and Prakash (2010) recommend that goods should be provided comparatively at lower prices as a special treat for customers. From an operations perspective, Price is considered one of the competitive strategies resulting from the operational efforts of retailers to attract and retain customer repurchasing.

The dimensions of the Price factor that bring benefits to the customers can be in terms of Good value or '*Value-for-money*' (Berman, Evans and Chatterjee, 2018; Blut, Teller and Floh, 2018; Buttle, 2009; Jebarajakirthy et al., 2020; Zentes, Morschett and Schamm-Klein, 2017). Supporting this point of view, Haverila and Twyford (2021) have conducted research and revealed that there are strong correlations between value-for-money and customer satisfaction and between value-for-money and customer repurchase intention. Indeed, the price in supermarkets is not the lowest; however, customers can believe that it is reasonable or acceptable with relevant quality guaranteed as they get what they pay for (Jebarajakirthy et al., 2020; Swoboda and Winters, 2021). Nevertheless, Gengeswari and Padmashantini (2013), Ganapathy (2017), Varley (2006), Zentes, Morschett and Schamm-Klein (2017) argue that supermarket shoppers can usually gain cost-effectiveness because of low prices and regular *discounts*. In addition, scholars admit that prices in supermarkets are *quoted transparently* and fairly, helping customers *compare* among stores or channels, which can bring more economic benefits to customers and create CR rate (Berman, Evans and Chatterjee, 2018; Ganapathy, 2017; Cox and Britain, 2004; Nguyen and Klaus; 2013).

2.1.4. Key Service-related Factors

Despite the recent review on the critical roles of Merchandise-related factors, another significant aspect of store operations that contributes to customer PB and CR are Services. In this thesis, the term Service-related-factors will be used in its especial sense to refer to key factors involved in the delivery of products with additional experience to customers and after-sales services.

Although various definitions of Services have been suggested, Stevenson (2018, p.4) proposes that "*Services are activities that provide some combination of time, location, form, and psychological value*". Moreover, Johnston, Shulver, Slack and Clark (2021) claim that services are intangible; though their input resources are tangible, and they can be perceived and assessed by consumers. From experience-based, Berry and Parasuraman (1993, quoted by Chatterjee, 2020) and Chatterjee (2020) describe services as customer experience-oriented, subjective perception, and service quality cannot almost be observable or measurable.

According to Oliver (2014) and Sierra and McQuitty (2005), merchandise nowadays is usually delivered with additional services that can contribute to customer perceptions and loyalty. Therefore, retail businesses cannot be an exception when merchandise and services are inseparable, but both can enhance customer PB and positively affect CR. From an operations perspective, Johnston et al. (2021) describe service provision as the process of outputs designed, created, and enacted by the operational activities using numerous input resources to satisfy customer expectations. Therefore, the services received by customers and products purchased are their experiences, benefits, emotions, judgments, and intentions (Johnston, Clark and Shulver, 2012; Johnston et al., 2021). Regarding input resources of services, Johnston et al. (2021) and Slack, Brandon-Jones and Johnston (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, increase CR and loyalty (Johnston et al., 2021). Because retailing is an essential service and a particular industry, Johnston et al. (2021) also imply that its input resources also consist of People (staff), Locations (premises and facilities), Technology (ICT systems), and Service process (knowledge) to create the 'products' in terms of customers' experience, benefits, emotions, judgment, and intentions.

People

Undoubtedly, the People factor is indispensable in any business organization. People are the company's assets and the primary source of customer value (Buttle, 2009), also called '*Staff*' by Pal and Byrom (2003) in retail, the most decisive factor in delivering products and services to customers to create an image and reputation of the company.

According to Zentes, Morschett, and Schamm-Klein (2017) and Berman, Evans and Chatterjee (2018), People in retail with skillful, professional, knowledgeable, good working behaviour are brand ambassadors in stores (Pal and Byrom, 2003). Moreover, involving all operational activities, from product seeking and sourcing to customer after-sales, retail staff are the pivotal factor in customer-centric strategy to create additional customer values (Pal and Byrom, 2003; Zentes, Morschett and Schamm-Klein, 2011; 2017). Therefore, the *high-competency staff* is one of the critical competitive advantages of supermarkets (Zentes, Morschett and Schamm-Klein, 2017; Berman, Evans and Chatterjee, 2018). Whereas Berman, Evans and Chatterjee (2018), Blut, Teller and Floh (2018), Buttle (2009), Gengeswari and Padmashantini (2013), Gupta and Ramachadran (2021), and Pal and Byrom (2003) also believe that employee *interaction* and their *positive working attitude* as well as helpfulness enthusiasm (can generate customer satisfaction and loyalty. Although there are still debates on the characteristics of retail staff, Berman, Evans and Chatterjee (2018), Dokcen, Obedgiu and

Nkurunziza (2021), Ganapathy (2017), Siu and Cheung (2001), Slack, Singh and Sharma (2020) recognize that *trustable behaviour* of staff can provide greater perceived quality and benefits of service and contribute to customer repurchase intention.

Premises

Nowadays, supermarkets are concerned with product categories and assortments of merchandise for shopping purposes and the places for various services delivered for customer experience and satisfaction (Gupta and Ramachadran, 2021; Varley, 2006). Previously, most scholars defined Place as location, one of four factors that make up the marketing mix (Kotler, Armstrong, Harri and He, 2020) or store location in the retail mix (Berman, Evans and Chatterjee, 2018; Zentes, Morschett and Schamm-Klein, 2017). Although different definitions of places or store locations still exist, there appears to be some agreement that store premises refer to store location, buildings, and other facilities with security, safety, and hygiene conditions (Berman, Evans, and Chatterjee, 2018; Dunne, Lusch, and Carve, 2011; Vedamani, 2017) as standards and regulations, creating a shopping environment for customer experience. This concept is close to Vedamani's (2017), who claims that the essential input factors for service operations for any retail store are the location with its building and facilities, so-called Premises, one of the most critical input resources of any retailer. Therefore, the term Premises, including location, building and all facilities and equipment, suggested by Vedamani (2017), will be used throughout the thesis instead of place or store location.

According to Berman, Evans, and Chatterjee (2018), trading-area analysis (geographic, demographic information) is one of the most critical foundations to decide the new store location. However, the format and design of the store can attract and serve customers better because customers come to stores not only for shopping but also for experience and enjoyment (De Nisco and Napolitano, 2006; Elmashhara and Soares, 2019; Sit, Merrilees and Birch, 2003). Therefore, to increase customer benefits and CR, in addition to the convenient location of stores, retailers generally focus on store *accessibility* (Berman, Evans and Chatterjee, 2018; Blut, Teller and Floh, 2018; Dunne, Lusch and Carve, 2011; Ganapathy, 2017; Zentes, Morschett, and Schamm-Klein, 2017). Furthermore, the format and design of the store with *safety and security* conditions are also mandatory conditions in retail to improve customer convenience and trust (Ayad and Rahim, 2013; Berman, Evans, and Chatterjee, 2018; Ganapathy, 2017; Kamran-Disfani, Mantrala, Izquierdo-Yusta and Martinez-Ruiz, 2017). In addition, a *comfortable shopping atmosphere* with modern infrastructure, additional convenient facilities, and physical equipment can attract customer visits (Ayad and Rahim, 2013; Blut, Teller and Floh, 2018). Since the early twentieth century, convenience and other entertainment services in the retail business have been combined to create an enjoyable shopping environment for

customer experience (Ayad and Rahim, 2013; De Nisco and Napolitano, 2006; Dunne, Lusch and Carve, 2011; Sit, Merrilees and Birch, 2003). Today, the shopping environment as an *entertainment ecosystem* for customer experience and enjoyment has become a competitive advantage and a common trend of retailers to attract customers and increase CR (Blut, Teller and Floh, 2018; Elmashhara and Soares, 2019).

ICT System

In the era of the technology revolution, ICT, the combination of computers and telecommunications (Cox and Britain, 2004), has become the innovation foundation of the retail industry (Grewal, Roggeveen and Nordfält, 2017; Grewal, Noble, Roggeveen and Nordfalt, 2020; Shankar et al., 2021), and allows retailers to compete in mature markets (Cox and Britain, 2004). According to Ryssel, Ritter, and Gemünden (2004), ICT also generates trust and commitment of suppliers and customers in food and service industries. In fact, ICT systems in retail include applications, devices, techniques, and enablers related to retail performance and the customer buying process (Roggeveen and Sethuraman, 2020b). ICT systems involve all retail functions and operational activities, from product procurement to after-sales services, controlling, and marketing activities (Berman, Evans and Chatterjee, 2018). Thanks to ICT systems, a vivid combination of instore and online experience can be generated to increase customer convenience through *online shopping* (Alexander and Kent, 2020; Grewal, Roggeveen and Nordfält, 2017; Grewal et al, 2020).

Practically, ICT supports retailers to provide their customers with more benefits (Saura, Molina and Contri, 2014) and enhance store loyalty and CR through an instore experience, such as *quick shopping processes* (Berman, Evans and Chatterjee, 2018; Buttle, 2009; Pal and Byrom, 2003; Zentes, Morschett and Schamm-Klein, 2017). ICT systems also allow customers to *access retailer information*, including store locations and business hours, product and service information, promotion programs, etc. (Grewal et al., 2020; Gupta and Ramachadran, 2021; Johnston et al., 2021; Lim, Xie and Haruvy, 2021; Shankar et al., 2021) through PC or mobile devices at any time to save time and provide more convenience and benefits to customers. Additionally, ICT systems assist supermarkets in connecting with banks and financial service providers to offer *payment flexibility* in both instore and online shopping (Amorim and Saghezchi, 2014; Dokcen, Obedgiu and Nkurunziza, 2021; Siu and Cheung, 2001; Swoboda and Winters, 2021). Last but not least, Grewal, Roggeveen and Nordfält (2017) and Grewal et al. (2020) predict that consumers expect to obtain a sense of connection through engaging and interactive experiences. Therefore, continuous *interconnections* are a service enabler for customer experience and satisfaction enhancer of omnichannel retailers (Bordoloi, Fitzsimmons and Fitzsimmons, 2019; Johnston, Clark and Shulver, 2012; Johnston et al., 2021) via the webpage, email, phone (hotline), chatbot or social networks, e.g., Facebook (Grewal,

Roggeveen and Nordfält, 2017; Grewal et al., 2020; Shankar et al., 2021; Zentes, Morschett and Schamm-Klein, 2017). As a consequence, it is confident to say that ICT's most tremendous success is not only generating the omnichannel retailing format but salvaging the retail industry from the negative impacts of the Covid-19 outbreak (Shankar et al., 2021). Today, retailers deploy online and offline shopping channels effectively to satisfy customers and compete with rivals (Hult, Sharma, Morgeson III, and Zhang, 2019). Additionally, Berman, Evans and Chatterjee (2018), Folarin and Hassan (2015), Lim, Xie, and Haruvy (2021), Molinillo, Saguilar-Illasca, Anaya-Sanchez and Carvajal-Trujillo (2021), and Zentes, Morschett and Schamm-Klein (2017) argue that the use of more smartphones for shopping and the development of mobile applications have been the opportunities for the survival and growth of omnichannel retailers. Thus, it has been observed that customer expenditures and shopping frequency still increase considerably despite the recession in recent years (PWC Global, 2021).

Customer Services

In broad terms, Customer services, one of the significant factors making products delivered to customers ideally, can be understood as high-quality services to meet customer expectations (Verhoef, Kannan and Inman, 2015; Dunne, Lusch and Carve, 2011) and increase CR (Buttle and Maklan, 2019).

In retailing, quality customer services are giant retailers' competitive advantages (Cox and Britain, 2004; Reddy, Reddy and Azeem, 2011), enablers to attract, retain, and enhance customer relationships for the long term (Dunne, Lusch and Carve, 2011). Especially for omnichannel retailing, integrated channel services can encourage customers to increase the level of product search intention, repurchase opportunities, and willingness to pay (Lee, Chan, Chong and Thadani, 2019). To explain this view, Berman, Evans and Chatterjee (2018), and Lee et al. (2019) indicate that physical stores offer a wide range of products and additional services for customer physical experience and provide *after-sales services* for both instore and online shopping. Based on the perspective of service operations, supermarkets nowadays are more dominant than other retail channels, not only because of store performance through the implementation of loyalty programs, promotion, instore events (Kumar, Batista, and Maull, 2011), to maximize customer satisfaction, but also additional after-sales services, e.g., free delivery, shopping bag, warranties, or even gift wrapping. For supermarkets, after-sales services are critical factors in ensuring satisfied customers and keeping them (Berman, Evans and Chatterjee, 2018; Ganapathy, 2017; Gupta and Ramachandran, 2021; Vedanami, 2017). However, Johnston et al. (2021) indicate that CR is also increased by resolving complaints due to a service guaranteed. Therefore, supermarkets usually have a well-designed complaint handling process with more customer-oriented approach (Berman, Evans and Chatterjee, 2018; Buttle, 2009; Gengeshwari and Padmashantini, 2013; Ramanathan, Subramanian, Yu and Vijaygopal, 2017; Zentes, Morschett and Schamm-Klein, 2017).

Nowadays, retailers also provide *personalized services* to motivate customers' positive emotions from customers (Zhao and Wang, 2021). For instance, retailers usually offer personal assistance to customers who have special requests with individual attention or a sincere interest in solving customers' problems (Kim, Lee and Park, 2014; Sands, Oppewal and Beverland (2015). Last but not least, Slack, Singh and Sharma (2020), Bordoloi, Fitzsimmons and Fitzsimmons (2019), and Patel, Guedes and Pearce (2017) also admit that services provided as *commitment* are indispensable to show consistent responsibilities of supermarkets to customers and ensure customer satisfaction.

2.2. Customer Retention

2.2.1. Customer Retention – Definitions and Different Concepts

Theoretically, CR has been an exciting topic for scholars since the mid-1990s (Ang and Buttle, 2006). Practically, CR is more critical issue for any business organization than ever (Cambra-Fierro, Gao, Melero-Polo, and Trifu, 2021), especially in retail (Dunne, Lusch, and Carver, 2011).

In the literature, 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). Several definitions of CR have been proposed. For Oliver (1997, p.392), CR means “*Deeply held commitment to rebuy or re-purchase 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 Buttle's (2004) and Almohaimmeed's (2019) which is defined CR as a company's effort to promote a long-term sustainable business relationship with its customers or the continuity of relationships between the organization and the customers. In particular, Srivastava, Naik, and Narula (2018) have a new definition of CR as the tendency or attitudinal measurement of existing customers for repurchasing. Practically, Buttle and Maklan (2019, p.95) provide a definition that “*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.*” With the lens of the marketing mix, almost all authors claim that CR is an excellent portion of relationship marketing concerning maintaining existing customers to enhance benefits for both the company and its customers through repurchasing (Alshurideh, 2016). Therefore, CR is one of the critical objectives of relationship marketing and contributes significantly to company profitability through cost-effectiveness (Ahmad and Buttle, 2002).

Regarding the customer lifecycle, Buttle (2004), Buttle and Maklan (2015; 2019), Zentes, Morschett, and Schamm-Klein (2017) claim that it is of three main stages: (i) customer acquisition, (ii) customer retention, and (iii) customer development, in which, CR is the stage that every enterprise wants to prolong as much as possible. Additionally, Kotler and Armstrong (2016) present that CR is one of the

most critical indicators of a company's ability to control its services. Therefore, Ahmad and Buttle (2002), Buttle and Maklan (2015), and Kotler and Armstrong (2016) emphasize that enterprises need to implement marketing mix strategies to treat new and existing customers to increase customer values to retain and develop valuable customers.

2.2.2. The Significance of Customer Retention in Retail

Generally, retailers serve numerous customers every day, so CR is always one of the essential business concentrations (Ahmad and Buttle, 2002; Aspinall et al., 2001; Buttle, 2009; Dunne, Lusch and Carve, 2011; Kanwal and Rajput, 2014).

Payne, Christopher, Clark and Peck (1998) argue that there is a high correlation between CR and company profitability and a strong link between service quality and CR, which increases customer expenditure due to high repurchase frequency, less price-sensitive, and willingness to pay a price premium, and significant source of referrals. Furthermore, many scholars hold the view that CR can create social bonds with customers through positive interpersonal relationships in retail, which are formed by finance (e.g., value for money), knowledge-based (e.g., understanding retailers' processes and structures, strengths and weaknesses), technology (e.g., automation checkout), multi-products (e.g., the more products purchased, the more difficult to break), or geography (referring to the support network for customers despite geographical distance) (Buttle and Maklan, 2015; 2019).

With a general view, Bryson, Sundbo, Fuglsang and Daniels (2020) insist that there are existing correlations between CR, customer satisfaction, and profitability. However, Bojei et al. (2013) argue that loyalty can measure CR, and loyal customers usually stay with certain companies and repurchase for long time. Still, customers who repurchase or retain are not necessarily loyal to the company (Bojei et al., 2013; Stevenson, 2018). Furthermore, 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 in stores as much as possible.

2.2.3. The Antecedents and Measurements of Customer Retention

In the context of aggressive competition among retail channels, modern retailers always establish close relationships with customer services (Blut, Teller and Floh, 2018) and are associated with operations management (Mou et al., 2018; Patel, Guedes and Pearce, 2017). The concept of patronage in retailing is developed by Blut, Teller and Floh (2018) as the interchange between retailers and shoppers, in which retailers offer services to obtain the positive attitude and behaviour of their shoppers 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.

During the last decades, researchers have done many studies on CR antecedents in service and retail industry, and the typical ones that directly or indirectly affect CR are presented in Table 2.2.

Table 2. 2: Antecedents of CR

Sources	Field	Antecedents
Ahmad and Buttle (2002)	General	Product design, Service design, Pricing, Sales, Advertising, Direct marketing, Distribution (indirectly through Customer satisfaction)
Ranaweera, and Neely (2003)	General	Service quality perception, Price perception, Inertia/ Switching cost (time, money and effort perceived), Indifference (indirectly through Repurchase intention)
Gustafsson, Johnson and Roos (2005)	Telecommu- nications services	Customer satisfaction, Affective and Calculative , Relationship Commitment, Situational and Reactional Triggers
Ray and Chiagouris (2009)	Retail	Store effects including Atmosphere and Physical landscape, Uniqueness, Merchandise value perception, Familiarity (indirectly through store loyalty, including WOM, Willing to pay, Customer share)
Danesh, Nasab and Ling (2012)	Retail	Customer satisfaction, Customer trust and Switching barriers
Sharmeela-Banu, Gengeswari and Padmashantini (2012)	Retail	Internal factors, i.e., Top management support, Pricing, Employee, and External factors, i.e., Switching cost, Perceived service quality, Satisfaction and Membership (CRM)
Bojei et al., (2013)	Retail	Customer service, Loyalty/ Reward programmes, Customizaion, Personalization.
Kanwal and Rajput (2014)	Retail	Shopping convenience, Personalization, Brand community (indirectly through Customer satisfaction)
Htwe (2015)	Retail	Products, Place, Price, Promotion and Events, People, and Presentation (indirectly through Customer satisfaction)
Julian, Ahmed, Wel and Bojei (2015)	Retail	Customer service, Loyalty/rewards programs, Personalization, Customization, and Brand/store community

Sources	Field	Antecedents
Jiang, Jun and Yang (2016)	E-commerce (B2C)	Care, Reliability, Product portfolio, Ease of use, Security (directly and indirectly through Perceived value)
Mokhtar and Yusr (2016)	Retail	Service quality, Corporate image, Customer trust, Customer switching cost (indirectly through Customer loyalty)
Aparna, Krishna, and Kumar (2018)	Retail	Retail format and Retail mix, i.e., Merchandise, Price, Promotional mix, Location, Services extended
Blut, Teller and Floh (2018)	Retail	Products and categories, Services, Brands (of products), Prices, Incentives or Discounts, Communication or advertisement), and Distribution (indirectly through Positive attitude and behaviour toward the retailer, Patronage)
Hanaysha (2018)	Retail	Social media marketing, Corporate social responsibility, Sales promotion, Store environment (indirectly through Perceived value)
Mahmoud, Hinson and Adika (2018)	Telecommunications services	Trust, Commitment and Conflict handling (indirectly through Customer Satisfaction)
Pham et al. (2018)	E-retail	Convenience, Perceived value (indirectly through Repurchase intention)
Almohaimmeed (2019)	General	Customer satisfaction, Customer loyalty, Customer profitability,
Kim (2019)	General	Price promotion, Service quality, Perceived fairness, Satisfaction, Loyalty program
Huang and Yu (2020)	Retail	Flexibility in time, Flexibility in store choice, and Surge pricing (indirectly through Customer loyalty and Customer satisfaction)
Nguyen (2020)	Retail	Operational factors (i.e., People, Product, Premises, Price, Stock, System and Services)
Alkitbi et al. (2020)	Banking and Retail	Service quality, Satisfaction, Trust and Commitment
Dokcen, Obedgiu and Nkurunziza (2021)	Retail	Retail atmospherics, Perceived service quality
Masri et al. (2021)	Digital market	Customer learning, Shopping value (directly through purchase intention) based

Sources	Field	Antecedents
		on Institutional commitment-trust perspective.
Mathew (2021)	Retail	Customer satisfaction, Customer loyalty, Switching cost

Source: The author's works (summarized from literature review)

In general, most studies on CR's antecedents focus only on customer satisfaction, customer loyalty, and perceived values from the perspective of marketing. These common antecedents have been shown to directly result in CR or play a mediating role between other factors and CR. Additionally, several scholars study the impact of operations on CR (Ahmad and Buttle, 2002; Ray and Chiagouris, 2009; Kanwal and Rajput, 2014; Huarng and Yu, 2020), and the main remains only partially reflect the operational prerequisite role in delivering PB for customer satisfaction or loyalty, and retention (Aparna, Krishna, and Kumar, 2018; Bojei et al., 2013; Blut, Teller and Floh, 2018; Hanaysha, 2018; Huarng and Yu, 2020; Julian et al., 2015; Sharmeela-Banu, Gengeswari and Padmashantini, 2012).

As a result, CR measurements in retail from an operations perspective are very different; however, they are also based on one of three main approaches. Behavioural measurements, Attitudinal measurements, and Composite measurements (Bowen and Chen, 2001; Oliver, 1999). Ahmad and Buttle (2002), Aspinal et al. (2001), and Buttle and Maklan (2015; 2019) claim historical data and related metrics in terms of Key Performance Indicators (KPIs), such as CR rate, Profit-adjusted retention rate, Cost of CR or Cost-effectiveness of CR tactics, are usually used to measure CR in practice. Whereas conducting interviews with managerial employees and directors in their work, Aspinal et al. (2001) discover that the practitioners 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. Throughout this thesis, the scales for predicting CR are based on behavioural and attitudinal dimensions with the development of previous studies and the author's modifications to fit the purpose of the investigation in a retail context. Details can be found in Table 3.2.

2.3. Perceived Benefit

2.3.1. Definitions and Relevant Studies in Retailing

While a variety of opinions on PB, a definition is agreed by Chandon, Wansink and Laurent (2000) and Liu, Brock, Shi, Chu and Tseng (2013) that PB is the belief about positive outcomes associated with behaviour, usually in a specific transactional context or for an individual's perception. More particularly, PB is the positive value of customers' expectation of quality of products or services (Gan and Wang, 2017; Goraya et al., 2020; Hult et al., 2019; Zeithaml, 1988), and

is one of the results of the service operations process (Slack, Brandon-Jones and Johnston, 2016; Jonhstone et al., 2021). Especially in retailing, PB is the perception of the customer of the best fit their expectation when shopping through variety or differentiation, convenience, trust, risk, etc. (Nguyen, McClelland and Nguyen, 2022; Zhu, Goraya and Cai, 2018), the beneficial effect of a specific transaction, a positive outcome, or an advantage by shopping (Hasim, Jabar and Murad, 2019). For e-retailing, PB is described as an expected reward for customers (Komalasari, Christianto, and Ganiarto, 2021; Koohikamali, Mousavizadeh, and Peak, 2019) or as the total benefit that satisfies consumer needs and wants (Tanadi, Samadi, and Gharleghi, 2015).

“Today’s value-conscious customers are neither impressed by the best product nor are they 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 (Kim and Kang, 1997; Kim, Lee and Park, 2014; Kim, Pookulangara and Crutsinger, 2002; Zeithaml, 1988). Therefore, PB with customers becomes significant for retailers to satisfy customers and lead to greater loyalty of customers to stores (Alreddy, Siriguppi and Menon, 2019; Kyguoliene, Zikiene and Grigaliunaite, 2017). When discussing shopping benefits based on the marketing view, Kim, Lee and Park (2014) present that customers seek the benefits or outcomes of purchasing, such as pleasure and convenience from stores, quality merchandise at a reasonable price. In contrast, Pal and Byrom (2003), with an operational view, proposed the Five-Ss model with the argument that Stock, Staff, Standards, Space, and Systems as Operational factors positively affect Shopper benefits. Therefore, the scholars conclude that offering more benefits and values through customer services and experience beyond the core products can allow firms to benefit from loyal customers leading to brand commitment and brand equity (Goraya et al., 2020; Oliver, 2014; Zhu, Goraya and Cai, 2018).

Alberts et al. (2018) explain 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 and Byrom, 2003). Regarding the antecedents of PB, scholars offer various concepts depending on industry specifications, distribution channel format, or perspective of marketing or operation. Typically, Oliver (2014), Kyguoliene, Zikiene and Grigaliunaite (2017), Steyn, Pitt, Strasheim, Boshoff and Abratt (2010) claim that loyalty programs or marketing strategies generate PB. While, other scholars argue that PB is derived from perceived product quality and price (Sweeney and Soutar, 2001; Yeh, Lin, Gau and Wang, 2020; Zeithaml, 1988), service quality, innovation (Yeh et al., 2020), store image, price image (Diallo, 2012; Yeh et al., 2020). However, almost all scholars agree that the consequences of PB are commonly patronage (or patronage intention), purchase

intention, satisfaction, or loyalty (Gan and Wang, 2017; Zeithaml, 1988). In the retail sector, there are many typical studies relevant to the dimensions, antecedents, and consequences of PB, which are typically presented in Table 2.3.

Table 2. 3: Dimensions, Antecedents and/or Consequences of PB

Sources	Dimensions	Antecedents	Consequences
Moeller, Fassnacht and Ettinger (2009)	Decision, Access, search, Transaction, and After-sales convenience	N/A	Customer behavioural loyalty and CR
Mishra, Das, Mishra and Mishra (2012)	Quality, Value expression, Saving, Convenience, Exploration, Entertainment	Sales promotion	N/A
Kim, Lee, Choi, Wu and Johnson (2013)	Monetary saving, Exploration, Social benefits, Recognition, Entertainment	Retail loyalty programs	Customer loyalty, Programs loyalty (to establish CR)
Saini and Sahay (2014)	Credit and Low price guarantee	Store format	Purchase intention
Saura, Molina and Contri (2014)	Perceived values through price offered	ICT and Retail innovativeness	Behavioural intentions (retention)
Emrich, Paul and Rudolph (2015)	Perceived variety, Perceived risk, Perceived convenience	Channel structure and assortment structure	Patronage intentions
Kyguoliene, Zikiene and Grigaliunaite (2017)	Convenience, Entertainment, Exploration, Social Benefits, Monetary savings, Recognition,	Loyalty programs	Customer satisfaction
Zhu, Goraya and Cai (2018)	Customers benefits including perceived variety, convenience, and risk	New added channels (online or offline channels added to offline or online channels), characteristics of product as moderator	Purchase intention

Sources	Dimensions	Antecedents	Consequences
Corbishley and Mason (2020)	Altruistic, Egoistic and Consumeristic	Loyalty programs	Relationship quality: Trust, Commitment and Satisfaction
Goraya et al. (2020)	Product choosing, Products quality, Convenience	Channel integration with Showrooming and Webrooming moderators	Patronage intention (offline and online)
Masri et al. (2021)	Monetary value, Products evaluation cost, Reputation, Product and website knowledge	N/A	Reuse intention and Purchase intention (indirectly through Trust and Commitment)
Komalasari, Christianto and Ganiarto (2021)	Shopping convenience, product selection, shopping flexibility, and shopping enjoyment	N/A	Purchase decision (indirectly through Purchase intention)
Swoboda and Winters (2021)	Perceived offline-to-online sevicees and Perceived online-to-offline sevicees	Channel integration services with consumers' online shopping experience and perceived channel congruence	Purchase intention for both offline and online channel

Source: The author's works (summarized from literature review)

2.3.2. Relationships between Customer Retention, Perceived Benefit and Store Operations

The relationship between PB and CR in retailing can be explained by the commitment-trust theory developed by Morgan and Hunt (1994). The theory says that trust and commitment must exist for a relationship to be successful (Masri et al., 2021; Morgan and Hunt, 1994). Based on the relationship marketing approach, Morgan and Hunt (1994) claim that forming bonds with customers through firm commitment and satisfying customer needs can generate customer trust, and long-lasting mutual loyalty helps both parties fulfill their needs. Practically, marketing strategy is a communication promise (Steyn et al., 2010), but store operations implement this promise as a commitment and responsibility to customers (Bijmolt et al., 2021; Bojei et al., 2013; Mollenkopf, Frankel and Russo, 2011; Sale, Mesak and Inman, 2017; Tang, 2010). The concept of these

scholars can be understood that once retailers fulfill their commitments, customer trust will be created in terms of perceived shopping benefits. Consequently, PB becomes one of the decisive factors for customer purchase intention, patronage, or patronage intention (Emrich, Paul and Rudolph, 2015; Goraya et al., 2020; Komalasari, Christianto and Ganiarto, 2021; Masri et al., 2021; Saini and Sahay, 2014; Swoboda and Winters, 2021; Zhu, Goraya and Cai, 2018), or customer satisfaction and loyalty (Kim et al., 2013; Kyguoliene, Zikiene and Grigaliunaite, 2017), which enables CR (Bojei et al., 2013; Kanwal and Rajput, 2014; Stevenson, 2018).

Reviewing previous studies, one of the most critical shopping benefits of large or omnichannel stores is *saving* money, time, and effort because customers can purchase almost items needed in the same place at a reasonable price (Kyguoliene, Zikiene and Grigaliunaite, 2017; Masri et al., 2021). In addition, the supermarket website also assists customers in searching for products, prices, and promotion schemes to place orders online. Based on an operations perspective, Dunne, Lusch and Carve (2011) and Levy, Weitz and Grewal (2019) claim that by shopping in physical stores, customers can truly experience the merchandise and receive personal services, enjoy entertainment and social interaction; thus, they can benefit due to *immediate gratification*. Together, shopping online through supermarket websites or 'buy online, pickup instore' with unified after-sales services creates *convenience* for customers, which is exhibited as a multidimensional construct covering the entire shopping process (Lee et al., 2019; Moeller, Fassnacht and Ettinger, 2009; Verhoef, Kannan and Inman, 2015).

Furthermore, *recognition*, created during the shopping journey, is another crucial non-monetary benefit that can improve CR (Levy, Weitz and Grewal, 2014; 2019). Kyguoliene, Zikiene and Grigaliunaite (2017) claim that recognition as a part of symbolic benefits does not significantly influence customer satisfaction; however, Johnston et al. (2021), Kim et al. (2013), Kyguoliene, Zikiene and Grigaliunaite (2017), Levy and Weitz (2011), Levy, Weitz and Grewal (2019) affirm that recognition is one of the soft benefits and emotionally oriented elements. For Johnston et al. (2021), recognition can be preferential treatment or special communications, which offers customers a sense of importance, and appreciation, can positively affect customer psychology and shopping attitude.

In addition, shopping with the physical presence of the store and the high authenticity of the merchandise can *reduce the perceived risk* of the customer and increase the trust of customers because their problems with any purchase will be effectively resolved (Emrich, Paul and Rudolph, 2015; Levy, Weitz and Grewal, 2014; 2019; Shiu, 2021). For the nonfinancial benefit facet, Levy, Weitz and Grewal (2019), Johnston et al. (2021), and Mishra et al. (2012) affirm that in-supermarket shopping can stimulate customer experience and *enjoy* with entertainment and socialization that is not available in non-store or small-scale retail formats.

2.4. Psychological Ownership

2.4.1. Definitions

Recent studies show that PO is closely related to consumer behaviour, especially in Revolution 4.0 and intense competition among retail channels (Morewedge et al., 2021; Peck and Shu, 2018). The concept of PO is derived from the extension of self theory (Peck and Shu 2018) and is 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, Kostava, and Dirks, 2001, p. 299; Pierce, Kostava and Dirks 2003, p. 86). In other words, PO is defined as the individuals’ feelings of ownership or their senses of possessiveness toward a target thing (Dawkins, Tian, Newman, and Martin, 2015; Pierce and Peck, 2018, in Peck and Shu, 2018). Furthermore, Pierce, Kostava and Dirks (2003) also explain that PO refers to the sense of possession that happens even without truly 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. Moreover, “*People assume psychological ownership of such decisions because they are partly responsible for the outcome, and this tends to elicit positive feelings*” (Fuchs, Prandelli, and Schreier, 2010, p. 67). According to Dawkins et al. (2015), the feeling of having possessions of objectives can enhance efficacy due to a sense of power, control, or influence. Besides, Zhao, Chen, and Wang (2016) argue that feelings of PO toward an object may lead individuals to experience, control, or possess it. Recently, Morewedge et al. (2021, p. 197) claim that “*Psychological ownership is, in many ways, a valuable asset. It satisfies important consumer motives and has value-enhancing consequences.*” Baxter and Aurisicchio (2018) argue that PO has three motives: Efficacy and effectance, Self-identity, and Having a place to dwell; and three routes: Control, Self-investment, and Intimate knowledge. Thus, it has been figured out that understanding the motives and routes of PO can help marketers and managers predict customers’ behaviours (Baxter and Aurisicchio, 2018).

2.4.2. PO and Shopping Behaviour

In a study not so long, Zhao et al. (2016) illustrate that PO has a significant effect on customer loyalty, while Kim et al. (2021) claim that PO impacts consumers' behavioural outcomes and influences their satisfaction. In recent research, Lee, Choi and Kim (2021) demonstrate the relationships between PO and customer trust, satisfaction, PB, and perceived risks in the service industry. Regarding purchase intention, Weiss and Johar (2018) claim that with PO, consumers usually obsess about the product or service as owned; thus, they easily make choices about this product or service and even retention decisions. Although, Micu and Ashley (2021) discover the negative impact of PO on territorial consumer behaviours on social media, Kirk and Swain (2018) demonstrate that digital technologies can enhance PO by giving opportunities to consumers, showing or developing their

feelings of ownership in the diverse digital environment (e.g., websites, virtual worlds, or social media), even voting on a product or the design of a new product. Practically, Morewedge et al. (2021) convince that PO for a product or brand is positively associated with consumer demand, willingness to pay, customer satisfaction, relationships, word-of-mouth, and competitive resistance, as noted previously. PO is thus a valuable asset for enterprises to preserve, capture, and reorient (Morewedge et al., 2021). It is rare to find studies on the relationships between PO and CR, PB, or store operational factors in retailing. While, De Canio and Fuentes-Blasco (2021), De Vries, Jager, Tijssen and Zandstra (2018), Peck and Shu (2009) admit that touching an object or mental imagery of an object will lead to greater perceived ownership of the object. Therefore, it can be figured out that omnichannel retailers should offer a practical and convenient shopping environment for the customer experience or design attractive imagery on websites or any media channel to enhance PO, creating customer trust, satisfaction, PB, and CR. However, whether there are relationships between PO and CR or PB and the moderating role of PO in omnichannel retailers have not been intensively explored and discussed in previous studies.

3. RESEARCH FRAMEWORK AND HYPOTHESES

3.1. Theoretical Foundation of the Research

Trust describes the belief that a promise of a party is trustable, and that party will perform its responsibilities in an exchange relationship (Schurr and Ozanne, 1985, cited by Paluri and Mishal, 2020). In other words, trust is “*willingness to rely on an exchange partner in whom one has confidence*” (Lewin and Johnston, 1997; Deutsch, 1960; Mayer et al., 1995; Moorman et al., 1992, cited by Paluri and Mishal, 2020, p.2839). In contrast, commitment occurs when the trading parties are willing to devote energy to sustaining the relationships (Dion et al., 1992, cited by Paluri and Mishal, 2020). A commitment between parties can be understood as the willingness of buyers and suppliers to exert effort based on their relationships (Paluri and Mishal, 2020). Morgan and Hunt (1994) claim that long-term relationships between organizations and individuals are impossible without trust and commitment. Interestingly, Liang and Wang (2006) and Mahmoud, Hinson and Adika (2018) demonstrate that trust and commitment significantly contribute to CR in financial services and telecommunications. They also imply that building customer trust is one of the critical strategies to ensure CR. At the same time, Wong and Sohal (2002), and Evanschitzky, Iyer, Plassmann, Niessing and Meffert (2006) suggest that commitment of service providers and customers positively affects CR.

The commitment-trust theory (Morgan and Hunt, 1994) is applied in this thesis as the theoretical foundation to explain the relationships between retailers (trading parties) and customers (committed parties) through store operations as a commitment to creating customer trust, in terms of PB. Customers trust retailers through PB and, in turn, can engage in retention or intent to repurchase and patronage instore or online. Therefore, this theory also allows us to predict behaviour and attitudes of shoppers toward the retailers or stores.

3.2. Formulation of the Research Framework

Based on the commitment-trust theory, the review of the existing studies, and the nature of supermarket operations, the research framework, illustrated in the form of the path model as Figure 3.1, is formulated to present the effects of Operational factors, classified into two groups: namely Merchandise-related and Service-related on PB and CR. At the same time, the path model shows the mediating role of PB between factors related to the Merchandise and the Services and CR, as well as the moderating role of CR in the effect of PB on CR, which can also be seen in Figure 3.1.

The conceptual model’s constructs and their relevant indicators are the foundation to compile the semi-structured protocol for an in-depth interview in qualitative research and then develop the survey questionnaire for the quantitative investigation of this study.

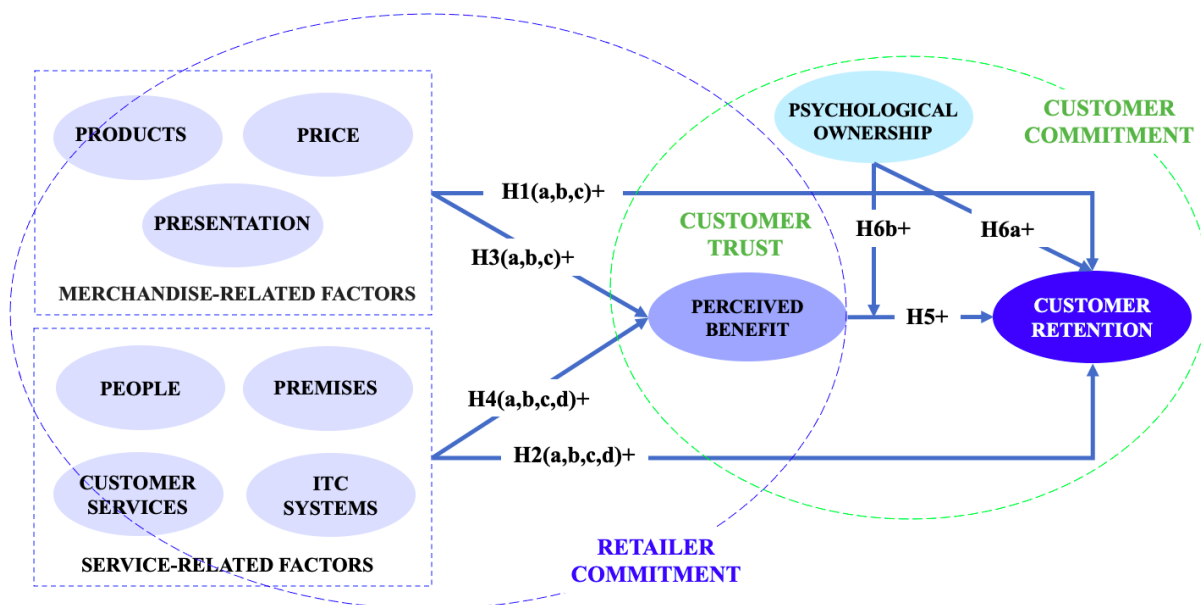


Figure 3. 1: Research framework of the thesis

Source: The author's works

3.3. Measurements of Variables and Hypothesis Formulation

3.3.1. Independent Variables

Regarding the scales of the conceptual model, the two groups of constructs are namely Merchandise-related factors (consisting of Products, Presentation, and Price) and Service-related factors (consisting of People, Premises, Customer services, and ICT systems). The factors, so-called constructs, can be measured by the relevant indicators developed from the previous concepts and the results of existing studies in the retail and service sectors. The indicator descriptions can be found in Table 3.1.

Table 3. 1: Measurement of independent variables

Descriptions	Sources
A. Merchandise-related factors	
Products (PRO)	
(PRO_1) Diversified assortment: Products in supermarkets are diverse with plenty of product categories.	Amorim & Saghezchi (2014), Clotey, Collier & Stodnick (2008), Dokcen, Obedgiu & Nkurunziza (2021), Emrich, Paul & Rudolph (2015), Goraya et al. (2020), Jebarajakirthy et al. (2020), Kim, Lee, & Park (2014), Nguyen & Klaus (2013), Siu & Cheung (2001), Slack,
(PRO_2) Favourite brands: Products are offered as customers desire with various brands and styles.	
(PRO_3) Quality assurance: Quality of products in supermarkets is controlled and guaranteed, and can be checked by customers.	

Descriptions	Sources
(PRO_4) Physical experience: Customers can physically experience or sensuously assess the products.	Singh & Sharma (2020), Swoboda & Winters (2021), Zhu, Goraya & Cai (2018)
Presentation (PRS)	
(PRS_1) Availability: Products and brands desired are always available; not out-of-stock.	Amorim & Saghezchi (2014), Dokcen, Obedgiu & Nkurunziza (2021), Ganapathy (2017), Garrouch et al. (2011), Goraya et al. (2020), Irfan, Siddiqui & Ahmed (2019), Kim, Lee, & Park (2014), Pal & Byrom (2003)
(PRS_2) Accessibility: Products are logically and reasonably displayed as specifications categories, standards for customer approach.	
(PRS_3) Attractiveness: Products are well-presented at the right location suitable for each type of product to ensure eye-catching with shelf signages.	
(PRS_4) Mass-merchandising: Products are displayed in large quantities, easy to buy with high volumes.	
Price (PRI)	
(PRI_1) ‘Value-for-money’: Prices are reasonable or appropriate with relevant quality guaranteed as <i>‘you get what you pay for’</i> .	Amorim & Saghezchi (2014), Goraya et al. (2020), Graciola, De Toni, De Lima, & Milan (2018), Hanaysha (2017; 2018), Harris, Riley, Riley & Hand (2017), Jebarajakirthy et al. (2020), Kim, Lee & Park (2014), Noyan & Simsek (2012), Nguyen & Klaus (2013), Oliver (2014), Varley (2006), Swoboda & Winters (2021)
(PRI_2) Discount promotion: Direct discounts are regularly applied as discount policies.	
(PRI_3) Transparency: Prices are transparently quoted with taxes and other charges indicated and fair, without bargain.	
(PRI_4) Comparability: Publicized price quotation and pricing information are comparable.	
B. Service-related factors	
People (PEO)	
(PEO_1) High competency: Employees in supermarkets are well-educated, professional, knowledgeable, intelligent, and skillful.	Amorim & Saghezchi (2014), Dokcen, Obedgiu & Nkurunziza (2021), Gupta & Ramachadran (2021), Hanaysha (2018), Siu & Cheung (2001), Slack, Singh & Sharma (2020), Swoboda & Winters (2021)
(PEO_2) Positive interaction: Employees are friendly, courtesy with an attitude of respect and empathy to offer personal attention.	
(PEO_3) Positive working attitude: Employees are enthusiastic, helpful, showing great interest and motivation to resolve problems.	

Descriptions	Sources
(PEO_4) Honesty: Employees are proactive and reliable with business ethics and responsiveness to instill confidence in the customers.	
Premises (PRM)	
(PRM_1) Accessibility: Supermarkets are easily accessible and reachable by walking, private or public transport means.	Amorim & Saghezchi (2014), De Nisco & Napolitano (2006), Dokcen, Obedgiu & Nkurunziza (2021), Elmashara & Soares (2019), Hanaysha (2017; 2018), Kim, Lee & Park (2014), Sit, Merrilees & Birch (2003), Slack, Singh & Sharma (2020), Swoboda & Winters (2021)
(PRM_2) Safety: Store format, design, layout, and interior are standardized to ensure hygiene, safety, and a secure shopping environment.	
(PRM_3) Comfortable shopping environment: The supermarkets have modern infrastructure, convenient equipment, and facilities for instore satisfaction.	
(PRM_4) Entertainment ecosystem: Stores are located in buildings with facilities and infrastructure which form an entertainment ecosystem in one place.	
ICT systems (ICT)	
(ICT_1) Online shopping: Supermarkets, as omnichannel retailers, offer both instore and online shopping.	Amorim & Saghezchi (2014), Bojei et al. (2013), Bordoloi, Fitzsimmons & Fitzsimmons (2019), Folarin & Hassan (2015), Goraya et al. (2020), Harris et al. (2017), Indiani & Febriandari (2021), Johnston, Clark & Shulver (2012), Johnston et al. (2021), Li, Hallsworth & Coca-Stefaniak (2020), Oliver (2014), Savastano, Bellini, D'Ascenzo & De Marco (2019), Sharma & Jhamb (2020), Siu & Cheung (2001), Slack, Singh & Sharma (2020), Swoboda & Winters (2021)
(ICT_2) Speedy shopping process: ICT systems help store operations and shopping process more effectively and efficiently.	
(ICT_3) Information accessibility: supermarkets' information can be easily accessed to encourage shopping.	
(ICT_4) Flexible payment: Supermarkets accept various alternative payments for both instore and online shopping.	
(ICT_5) Constant interconnection: Dual communication between customers and supermarkets is implemented continuously and quickly.	

Descriptions	Sources
Customer services (CUS)	
(CUS_1) After-sales services: Supermarkets offer free after-sales services for both instore and online shopping.	Amorim & Saghezchi (2014), Bojei et al. (2013), Dokcen, Obedgiu & Nkurunziza (2021), Goraya et al. (2020), Irfan, Siddiqui & Ahmed (2019), Kim, Lee & Park (2014), Mahmoud, Hinson & Adika (2018), Oliver (2014), Sands, Oppewal & Beverland (2015), Saura, Molina & Contri (2014); Slack, Singh & Sharma (2020), Siu & Cheung (2001), Swoboda & Winters (2021)
(CUS_2) Effective complaint handling: The customer complaint handling process is designed and implemented effectively with customer oriented.	
(CUS_3) Commitment: Available services are always provided right the first time as promised.	
(CUS_4) Personalization: Supermarkets are always ready to provide prompt personal assistance to customer requests with individual attention.	

Source: The author's works (developed from literature review)

3.3.2. Target Dependent Variable

Measurements related to the CR construct are developed from previous work-related literature in the retailing and service sectors, consisting of Preference, Frequency increasing, Feeling loyalty, Word-of-mouth, Recommendation, and Involvement. To measure these constructs, the indicators of CR, intention of patronage or repurchase in previous studies are developed and utilized in this thesis. The descriptions of CR and its indicators are detailed in Table 3.2.

Table 3. 2: Measurement of dependent variable CR

Descriptions	Sources
(CR_1) Preference: Customers continue to do shopping at store or on its website/ application as preference or first choice.	Bojei et al. (2013), Dokcen, Obedgiu & Nkurunziza (2021), Hanaysha (2018), Goraya et al. (2020), Graciola et al. (2018), Noyan & Simsek (2012)
(CR_2) Frequency increasing: Customers increase the frequency of purchasing at supermarkets or on supermarket websites.	Aspinall, Nancarrow & Stone (2001), Damiri & Raharja (2017), Emrich, Paul & Rudolph (2015), Gengeswari, Padmashantini & Sharmeela-Banu (2013), Hanaysha (2018), Nguyen (2020)
(CR_3) Feeling loyalty: Customers feel committed towards the store(s) and will not switch to other retail channels despite price-sensitive or any problem experienced	Bojei et al. (2013), Saura, Molina & Contri (2014); Slack, Singh & Sharma (2020)

Descriptions	Sources
(CR_4) Word-of-mouth: Customers are willing to say positive things about the supermarkets/ websites/ applications and their benefits.	Clottey, Collier & Stodnick (2008), Damiri & Raharja (2017), Goraya et al. (2020), Mahmoud, Hinson & Adika (2018), Pham (2020), Ray & Chiagouris (2009), Slack, Singh & Sharma (2020)
(CR_5) Recommendation: Customers are willing to recommend their relatives, friends, or colleagues to go shopping in supermarkets or on supermarkets' websites/ applications.	Emrich, Paul & Rudolph (2015), Gengeswari, Padmashantini & Sharmeela-Banu (2013), Goraya et al. (2020), Mahmoud, Hinson & Adika (2018), Saura, Molina & Contri (2014); Slack, Singh & Sharma (2020)
(CR_6) Involvement: Customers regularly give suggestions to improve the supermarket's quality of products and services, or websites/applications.	Aspinall et al. (2001), Bojei et al. (2013), Buttle & Maklan (2015), Nguyen (2020)

Source: The author's works (developed from literature review)

3.3.3. Mediating Variable

Based on the literature review summarized in Table 2.3, PB is also hypothesized to be a mediator in this research. In other words, it is assumed that PB is directly affected by the Operational factors and has direct effect on CR. The dimensions of PB are also defined and developed based on previous studies in retailing, including Saving, Convenience, Instant gratification, Recognition, Enjoyment. In addition, perceived risk is described as a component that reduces PB according to the concept of perceived value (Zeithaml, 1988), thus, risk reduction can be considered a positive dimension that enhances PB in this research. The descriptions of PB's indicators are detailed in Table 3.3.

Table 3. 3: Measurement of mediating variable PB

Descriptions	Sources
(PB_1) Saving: Customers can save time, money and effort to make a purchase at a supermarket or on its website/ application.	Graciola et al. (2018), Harris et al. (2017), Kim, Lee, & Park (2014), Kyguoliene, Zikiene & Grigaliunaite (2017), Masri et al. (2021), Noyan & Simsek (2012), Savastano et al. (2019)
(PB_2) Convenience: Customers benefit from store convenience: store open hours or 24/7 online shopping, purchasing process, shopping environment, after-sales services, exchange/ return guarantee, etc.	Emrich, Paul & Rudolph (2015), Harris et al. (2017), Indiani & Febriandari (2021), Komalasari, Christianto & Ganiarto (2021), Moeller, Fassnacht & Ettinger (2009), Zhu, Goraya & Cai (2018)

Descriptions	Sources
(PB_3) Instant gratification: Customers can be instantly satisfied with their purchasing decision (due to staff interactions, quality products and services, reasonable price and payment method, shopping environment, etc.)	Graciola et al. (2018), Hanaysha (2018), Indiani & Febriandari (2021), Irfan, Siddiqui & Ahmed (2019), Levy, Weitz & Grewal (2014), Kumar & Ayodeji (2021), Noyan & Simsek (2012), Slack, Singh & Sharma (2020)
(PB_4) Recognition: Customers can gain recognition through personalized treatment, employee service style, and empathy.	Bojei et al. (2013), Goraya et al. (2020), Kim, Lee, & Park (2014), Kyguoliene, Zikiene & Grigaliunaite (2017), Noyan & Simsek (2012), Slack, Singh & Sharma (2020)
(PB_5) Enjoyment: Customers can entertain and experience social activities, opportunities to interact with employees or friends/relatives, or enjoy and reward shopping experience.	Dokcen, Obedgiu & Nkurunziza (2021), Goraya et al. (2020), Hanaysha (2018), Johnston et al. (2021), Kim, Lee, & Park (2014), Kumar & Ayodeji (2021), Levy, Weitz & Grewal (2014; 2019), Noyan & Simsek (2012)
(PB_6) Risk reduction: Customers can reduce risk due to safety, security, hygiene shopping environment, high level of reliable product quality, guaranteed services as commitment, and financial risk-free.	Emrich, Paul & Rudolph (2015), Hanaysha (2018), Kim, Lee, & Park (2014), Indiani & Febriandari (2021), Levy, Weitz & Grewal (2019), Shiu (2021)

Source: The author's works (developed from literature review)

3.3.4. Moderating Variable

Peck and Shu (2018) and Peck and Luangrath (2018) have discussed PO measurement and its development over the years, which are purposively selected and modified to be suitable for the retail context of this research. Although previous studies consider PO as a mediator (Dawkins et al., 2015; Zhao et al., 2016), in this research, PO is hypothesized to positively affect CR and moderate the relationship between PB and CR. The proposed scales in terms of indicators are presented with detailed descriptions in Table 3.4.

Table 3. 4: Measurement of moderating variable PO

Descriptions	Sources
(PO_1) Sense of store and/or its website ownership: Customers feel the supermarket, or its website/ application is theirs when doing shopping.	Avey, Avolio, Crossley & Luthans (2009); Kirk, Peck & Swain (2018); Lee & Suh (2015)

Descriptions	Sources
(PO_2) Sense of product ownership: Customer feel that ‘ <i>it is theirs</i> ’ despite unpurchased product or service.	Fuchs, Prandelli & Schreier (2010); Kirk, Peck & Swain (2018)
(PO_3) Familiarity: Customers have a strong sense of familiarity or connection with supermarket or its website/ application or have a clear insight of the store and its products.	Avey et al. (2009); Bojei et al. (2013); Kirk, Peck & Swain (2018); Lee & Suh (2015)
(PO_4) Sense of closeness: Customers feel a strong sense of closeness with supermarket or its website/ application and want to spend more time on it.	Bojei et al. (2013); Fuchs, Prandelli & Schreier (2010); Kirk, Peck & Swain (2018); Peck & Shu (2009)

Source: The author’s works (developed from literature review)

Based on the review of existing studies and the research framework (Figure 3.1), the hypotheses of this thesis are proposed to investigate:

- The direct effects of Operational factors, including Merchandise-related factors (i.e., Products, Presentation and Price) and Service-related factors (i.e., People, Premises, ICT systems and Customer services) on CR.
- The mediating role of PB between Operational factors and CR through the integration of direct effects of Operational factors, including Merchandise-related factors (i.e., Products, Presentation and Price) and Service-related factors (i.e., People, Premises, ICT systems and Customer services) on BP, and the direct effect of PB on CR.
- The direct effect of PO on CR and the moderating role of PO on the effect of PB on CR.

Therefore, the hypotheses are proposed as follows:

The direct effects of Operational factors (Independent variables) on Customer retention in supermarkets

- ***Merchandise-related factors***

H1a: Products have a positive effect on Customer retention.

H1b: Price has a positive effect on Customer retention.

H1c: Presentation has a positive effect on Customer retention.

- ***Service-related factors***

H2a: People have a positive effect on Customer retention.

H2b: Premises have a positive effect on Customer retention.

H2c: ICT systems have a positive effect on Customer retention.

H2d: Customer services have a positive effect on Customer retention.

The mediating effect of Perceived benefit (Mediating variable) on the relationships between Operational factors and Customer retention in supermarkets

- ***Direct effects of Merchandise-related factors on Perceived benefit***

H3a: Products have a positive effect on Perceived benefit.

H3b: Presentation has a positive effect on Perceived benefit.

H3c: Price has a positive effect on Perceived benefit.

- ***Direct effects of Service-related factors on Perceived benefit***

H4a: People has a positive effect on Perceived benefit.

H4b: Premises have a positive effect on Perceived benefit.

H4c: ICT systems have a positive effect on Perceived benefit.

H4d: Customer services have a positive effect on Perceived benefit.

- ***Direct and mediating effect of Perceived benefits on Customer retention***

H5: Perceived benefit has a positive effect on Customer retention, such that it mediates the relationships between the Operational factors and Customer retention.

The moderating effect of PO factor (Moderating variable):

H6a: PO has a direct positive effect on CR in Supermarkets.

H6b: Customers' PO 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

4.1. Qualitative Research

The qualitative method is utilized in this thesis because it can offer an effective way to build theory development. It is more beneficial to gain insight into store operations activities and discover the gaps between academic studies and business practice (Saunders, Lewis and Thornhill, 2019). For qualitative research, in-depth interviews with retail managers were conducted to collect expert opinions to assess and select suitable indicators of the constructs in the conceptual model. A semi-structured interview protocol (Appendix 1) is designed based on the measurements of the constructs presented in Tables 3.1, 3.2, 3.3, and 3.4.

Sampling for the interview is convenient, non-probability, and purposive to collect the best enabled 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, Lewis and Thornhill (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. As part of the design of the research methodology, 30 interviewees are recruited from the five largest omnichannel retailers (averagely six interviewees/supermarket chain), of which stores are located in metropolitan (i.e., Ha Noi, Ho Chi Minh city) or large cities (i.e., Can Tho, Da Nang, Hai Phong) in Vietnam. The target interviewees are store operations managers with 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 in Vietnamese and English) and interview schedules will be sent to interviewees for reference and preparation before the interview is conducted. The type of interview can be face-to-face or online through the Google Meet or Microsoft team. Simultaneously, a commitment letter will be signed between the author (as interviewer) and the store managers (on behalf of the interviewees) to ensure that information collected will be disclosed if only the store manager's permission is obtained. Interviews can be conducted in person or through video calls (Microsoft team or Google meet), recorded in audio or video files and transcribed and analyzed by NVivo.

Because the results of qualitative research are the foundation for assessing the suitability of the model's constructs and their relevant indicators, then for designing the survey questionnaire in quantitative analysis in the next stage. The indicators with an agreement rate of less than 75% will not be included and developed in the questionnaire.

4.2. Quantitative Research

In this thesis, quantitative research is used to examine the relationships between variables and incorporate controls to ensure data validity in experimental research

(Saunders, Lewis and Thornhill, 2019). Together, frequency analysis is used to assess demographic information of the respondents and investigate their shopping frequency, attitudes, beliefs, prejudices, preferences, motives, and opinions of shoppers for store Operational factors, which are classified into two groups Merchandise-related factors (consisting of Products, Presentation, and Price factors) and Service-related factors (consisting of People, Premises, ICT systems and Customer services). Thanks to quantitative research, the supporting effects of Operational factors on PB and CR and the moderating role of PO on the impact of PB on CR will be examined in the supermarket context.

For data collection, a 5-point Likert scale questionnaire is designed based on the results of qualitative research. The questionnaire is in Google Docs form, accessible and answerable on a PC or any mobile device. With the support and assistance of store managers, the questionnaire will be sent to the target respondents who are existing shoppers and doing shopping instore and/or online at least once a month in any store of the five largest supermarket chains in Ha Noi, Ho Chi Minh City, Can Tho, Da Nang, and Hai Phong (Vietnam).

Because PLS-SEM is deployed in the thesis for data analysis and hypothesis testing, sample size determination follows the recommendations of Hair et al. (2017). Hair et al. (2017) state that PLS-SEM works efficiently with complex models and small sample sizes. Therefore, the minimum sample size is proposed to be ten times the largest number of structural paths directed at a particular construct in the structural model (Hair et al., 2017; Ringle, Silva and Bido, 2014). In this way, the minimum sample size for this model can be 160, while the sample size determined using G*Power (Hair et al., 2017; Ringle Silva and Bido, 2014) is 166. According to Barroso, Carrion and Roldan (2010), Cordeiro, Machas and Neves (2010, in Vinzi et al., 2010), Garson (2016), and Hair et al. (2017), the larger sample size will increase the statistical power, precision, consistency, and reliability of PLS-SEM estimations. However, 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 modeling) and PLS-SEM are similar with four or more appropriate indicator variables used to measure each construct (Hair et al., 2017). With a target population of 1,500 shoppers and an estimated response rate of 30%, the expected sample size will be at least 450. In addition, based on the inverse square root method as a ratio of a path coefficient (β) and its standard error for a specific significance level, Hair et al. (2021, p.18) recommend that the minimum sample size requirement (n_{\min}) for the significance levels of 1%, 5% and 10% with varying ranges of path coefficient – β_{\min} in the PLS path model is given as in Table 4.1. According to Hair et al. (2017), a significance level of 5% is usually assumed in marketing; however, a significance level of 10% is also assumed for exploratory study.

Thus, if the research targets that β_{\min} is 0.05 to 0.10, the minimum sample size should be 1004, 619 or 451 for the significance level of 1%, 5% or 10%,

respectively. Similarly, if β_{\min} is expected in the range of 0.11 to 0.20, the minimum sample size should be 251, 155 or 113 for the significance level of 1%, 5% or 10% (Hair et al., 2021).

Table 4. 1: Sample size for different β and significance levels

β_{\min}	Sample size for different significant levels		
	1%	5%	10%
0.05 – 0.1	1004	619	451
0.11 – 0.2	251	155	113
0.21 – 0.3	112	69	51
0.31 – 0.4	63	39	29

Source: Hair et al. (2021)

Based on the process recommended by Hair et al. (2017), the data collected, in the form of digital from 1 to 5 standing for Strongly disagree, Disagree, Neutral, Agree, Strongly agree¹, will be handled before being analyzed by JASP and SmartPLS software (Garson, 2016; Hair et al., 2017) as the following procedures:

- *Missing data will be named 99. If a questionnaire exceeds four missing responses, the observation will be removed from the data file.*
- *The observation with the suspicious response (inconsistent, illogical, or straight-lining, e.g., the same score for all) will be removed from the data file.*

4.3. Conceptual Model Evaluation and Hypothesis Testing

PLS-SEM, also called the PLS-path model, is a statistical ‘causal-predictive’ approach for modelling complex multivariate relationships between observed variables (indicators) and latent variables (constructs or factors) in causal relationships (Shmueli et al., 2019; Vinzi et al., 2010). The PLS-path model is used primarily to develop theories in exploratory research (Hair et al., 2017). In other words, as variance-based, the PLS-SEM models are path models in which several variables may be the effects of others; simultaneously, they are still the causes of variables later in the hypothesized causal sequence (Garson, 2016). Garson (2016), Hair et al. (2017), Shmueli et al. (2019), and Vinzi et al. (2010) recommend that PLS-SEM should be employed in a complex model with a small sample size. Moreover, they also claim that PLS-SEM can offer a better solution in estimating factor models (reflective measurement) to rectify the inconsistent results from the traditional PLS algorithm without customarily distributed data.

Based on the objectives and hypotheses of the research and the Systematic procedure of Hair et al. (2017), the hypothetical model is proposed in the forms of *Structural models* and *Measurement models*. The structural models (also called Inner models) present the relationships between the Operational factors,

¹ Thanks to the questionnaire designed in Google form, the respondent cannot choose any number other than 1, 2, 3, 4, and 5.

also called latent variables (Products, Price, Presentation, People, Premises, Customer services, ICT systems) with PB and CR and the moderating connection of PO with the effect of PB on CR. The Measurement models, or Outer models, display the relationships between the factors and their relevant indicators, also called manifest variables, which can be found in Table 3.1, 3.2, 3.3, 3.4 and Appendix 2.

Based on the definitions and literature review, the constructs of CR, PB, PO, Products, Price, Presentation, People, Premises, ICT systems and Customer services are assumingly measured by 45 reflective indicators², formulated from the existing research knowledge, theories, and concepts. Each indicator relates to the specific survey question, detailed in Table 3.1, 3.2, 3.3, 3.4, and Appendix 2. According to Hair et al. (2017), the procedure for applying PLS-SEM in hypothesis testing and hypothetical model evaluation consists of the stages as follows:

4.3.1. Evaluation of the Reflective Measurement Models

The most critical metrics for evaluating the Reflective measurement models are Internal consistency, Convergent validity, and Discriminant validity with their relevant indicators and thresholds presented in Table 4.2.

Table 4. 2: Evaluation of the Reflective measurement models

Metrics	Indicators	Thresholds
Convergent validity	Loadings	≥ 0.708
	Average variance extracted – AVE	≥ 0.50
Internal consistency	Cronbach’s alpha	0.60 - 0.95
	Composite reliability	0.60 - 0.95
	Rho-A	0.70 – 0.95
Discriminant validity	Heterotrait-monotrait - HTMT	Does not include 1, or < 0.90

Source: Hair et al. (2017; 2019)

As the first step in the process of evaluating the Reflective measurement models, Convergent validity, Hair et al. (2017; 2019) recommend that outer loading metrics should be at least 0.708 so that the construct can be explained by more than 50% of the indicator’s variance (AVE), or the indicators are acceptable. For the second step, Cronbach’s alpha and Composite reliability are used to measure the internal consistency of indicators within a construct. According to Hair et al. (2017; 2019), the consistency of a measurement model is defined when the

² Measures are representative of the latent variable (Garson, 2016), display the causality from the construct to its measures, and are interchangeable because the concept is reflected in the different indicators with sharing a common theme; therefore, even one of the indicators is deleted, the construct still exists (Hair et al., 2017).

Cronbach’s alpha, the lower bound, is a minimum of 0.70, or 0.60 in exploratory research and a maximum of 0.95, and simultaneously the composite reliability is within the thresholds of 0.60 to 0.95. The fourth metric to evaluate the reliability of the internal consistency of a construct is rho-A, of which thresholds in the range of 0.70 to 0.95 are assumed to be correct for a measurement model.

Discriminant validity is the third step of the Evaluation of the Reflective measurement model process. Although Hair et al. (2017) recommend three metrics, Cross-loadings, Fornell-Larcker Criterion, and HTMT, for evaluating the discriminant of the measurement model, Hair et al. (2019) agree with Henseler et al. (2015, cited by Hair et al., 2019) and Voorhees et al. (2016, cited by Hair et al., 2019) that HTMT, “the mean of the average correlations for the items measuring the same construct” (Hair et al., 2019, p.9), is the most suitable metric to assess discriminant validity of measurement models. Discriminant validity problems occur when the HTMT values are high. Therefore, Hair et al. (2019) suggest that the threshold of HTMT is 0.90.

4.3.2. Evaluation of the Structural Model

Evaluation of the structural model includes six steps with the key metrics relevant thresholds detailed as in Table 4.3.

Table 4. 3: Evaluation of the Structural Model

Steps	Metrics	Thresholds
Collinearity Assessment	Root mean square residual covariance - RMS_{θ}	<ul style="list-style-type: none"> • < 0.12: a well-fitting model • > 0.12: lack of fit
Structural Model Path Coefficients	Path coefficients (β)	<ul style="list-style-type: none"> • Close to +1: strong positive relationships • Close to -1: strong negative relationships
Coefficient of Determination	R^2 value	<ul style="list-style-type: none"> • ≥ 0.75: substantial • 0.5: moderate • 0.25: weak
f^2 effect size	f^2 value	<ul style="list-style-type: none"> • >0.02: small effect sizes • >0.15: medium effect sizes • >0.35: large effect sizes
Blindfolding and predictive relevance	Predictive relevance - Q^2	<ul style="list-style-type: none"> • >0: small predictive relevance • >0.25: medium predictive relevance • >0.50: large predictive relevance
q^2 effect size	q^2 value	<ul style="list-style-type: none"> • >0.02: small predictive relevance • >0.15: medium predictive relevance • >0.35: large predictive relevance

Source: Hair et al. (2017; 2019)

Hair et al. (2017; 2019) recommend that the stage of the Coefficient of Determination is to measure model fit with RMS_{θ} and suggest its threshold of 0.12. A model is well fitted when its RMS_{θ} value is lower than 0.12; otherwise, the model does not fit.

The second step is to assess the path coefficients of the structural model or to assess the hypothesized relationships among the constructs through the path coefficients. According to Hair et al. (2017; 2019), the path coefficients (β) have a value in the range of -1 to +1, which presents that the relationships are strongly positive with the estimated path coefficients of close to +1, and the relationships are strongly negative with the estimated path coefficients of close to -1. Furthermore, values closer to zero mean weak relationships among constructs (Hair et al., 2017). Similarly, p-values are used to assess significant levels of the relationship. Hair et al. (2017; 2019) suggest that the p-values should be less than 0.05 to ensure that the correlations are significant at 5%.

The determination coefficient is the third step in the structural model evaluation process with an R^2 value to measure the predictive power of the model. R^2 value in the range of 0 to 1, of which the higher value presents higher levels of predictive precision (Hair et al., 2017). Hair et al. (2017; 2019) also recommend that R^2 values of 0.75, 0.50, or 0.25 are described as substantial, moderate, or weak, respectively, while R^2 greater than 0.9 is overfitted.

The f^2 effect size is calculated in the fourth step to assess the relative impact of a predictor construct on an endogenous construct in terms of its explanatory power (Hair et al., 2021). In other words, f^2 effect size is used analyze how much a predictor construct contributes to the R^2 value of a target construct in the structural model, although Hair et al. (2019, p.12) admit that “*it is somewhat redundant to the size of the path coefficients*”. The values of 0.02, 0.15, and 0.35, respectively, represent small, medium, and large effects (Cohen, 1992; Hair et al., 2021) of the exogenous latent variable, enables to analyze the relevance of constructs in explaining selected endogenous constructs (Hair et al., 2017). Cohen (1992, p.156) recommends that medium effect size will illustrate an effect that is “*visible to the naked eye of a careful observer*”.

The fifth step is Blindfolding and Predictive relevance Q^2 to measure the model’s out-of-sample predictive power or predictive relevance (Hair et al., 2017, p.202). Hair et al. (2019) also suggest that Q^2 values should be greater than zero, 0.25, and 0.5, respectively, representing the small, medium, and large predictive relevance of the path model.

Finally, the effects sizes of q^2 can be used to assess an independent variable’s contribution to a dependent variable’s Q^2 value as the predictive relevance. The q^2 value of 0.02, 0.15, or 0.35, respectively, shows that the independent variable has a small, medium or large predictive relevance for a specific dependent variable (Hair et al., 2017; 2019).

4.3.3. Mediating Effect Analysis

The mediating effect involves a third variable that acts as an intermediary of the relationship between independent and dependent variables (Roldan and Cepeda, 2016), and the media effect (or indirect effect) can be calculated as the formula:

$$\textit{Indirect effect} = \textit{Total effect} - \textit{Direct effect}$$

The mediation model is evaluated after all the quality criteria of the measurement models are satisfied (Hair et al., 2017), and the significance of the indirect effect can be tested using a bootstrapping procedure (Roldan and Cepeda, 2016). As the hypothesis of this research, PB is a mediator between Operational factors (including Merchandise-related factors, i.e., Products, Presentation, Price, and Service-related factors, i.e., People, Premises, ICT system, and Customer services) and CR, of which mediating effect will be investigated whether it exists or not, and what type of effect if it does exist.

4.3.4. Moderating Effects Analysis

The moderating effect occurs when an independent construct (variable) changes the strength or direction of a relationship between two constructs in the model (Hair et al., 2017). In this investigation, PO is hypothesized to act as a moderator, affecting the relationship between PB and CR. There are two types of moderating variables, namely categorical moderator variable and continuous moderator variable (Hair et al., 2017); however, PO is defined as a continuous moderator variable in this study. Based on the concept of Becker, Ringle and Sarstedt (2018), Hair et al. (2017), Ramayah, Hwa, Chuah, Ting and Memon (2018), the moderator effect will be presented as a new variable, namely 'PO*PB', which directly affects CR in the hypothetical model. The significance of moderating effect assessment and model evaluation with a two-stage approach is performed as guidelines by Becker, Ringle and Sarstedt (2018), Hair et al. (2017), and Ramayah et al. (2018). Thanks to SmartPLS, all metrics for conceptual model evaluation and hypothesis testing will be fully calculated to support this study.

5. RESEARCH RESULTS

5.1. Qualitative Research with In-dept Interview

Thirty-two of the 40 store managers who received invitations joined the interviews. In general, the discussions were positive because 30 of 32 respondents admitted that store Operational factors directly contributed to customer benefits and improved CR. Surprisingly, more than 75% of the respondents said that they clearly understood that customers' senses of possession, familiarity, and closeness could make them enjoy and experience in the stores where they were shopping.

Generally, most of the participants agreed with all the proposed constructs and relevant indicators. Figures in Table 5.1 show that at least 75% of the interviewees agreed on the constructs and related dimensions. Although they provided many different definitions and explanations for further consideration, all hypothesized constructs and 45 indicators were accepted.

In addition, store managers made many positive contributions during interviews. For example, several managers claimed that promotion events carried out through store operations were crucial factors in attracting customer visits and repurchase intention; however, the agreement rate was below the accepted threshold of 75%. On the contrary, others with an operational perspective showed that supply chain management in supermarket chains could lead to customer benefits and satisfaction. This view has been illustrated in recent years by many scholars like Beh, Ghobadian, He, Gallear and O'Regan (2016) and Galipoglu, Kotzab, Teller, Hüseyinoglu and Pöppelbuß (2018). However, supply chain activities cannot be visible or assessed by shoppers. In addition, several interviewees suggested that stocks in a suitable quantity under good preservation conditions and at a suitable time can contribute to customer benefits. However, this opinion seems to overlap because it is partly included in Products and Presentation factors. Furthermore, many interviewees argued that CSR campaigns in stores could improve customer trust, customer satisfaction, and loyalty or retention. This opinion is entirely consistent with the results of the studies by Martinez and Del Bosque (2013), Martinuzzi, Kudlak, Faber and Wiman (2011), and Somjani (2021); however, it does not appear relevant to the scope of the research. Therefore, this contribution was not developed in the thesis.

Table 5. 1: Interview results: Agreeing responses by store chain

Factors and Indicators	Agreeing responses by store chain						%
	A	B	C	D	E	Total	
Products							
PRO_1 - Diversified assortment	6	6	7	6	7	32	100
PRO_2 - Physical experience	6	6	7	6	7	32	100
PRO_3 - Quality assurance	6	6	7	6	7	32	100
PRO_4 - Favourite brands	6	5	5	6	5	27	84

Factors and Indicators	Agreeing responses by store chain						%
	A	B	C	D	E	Total	
Presentation							
PRS_1 - Availability	6	5	7	5	7	30	94
PRS_2 - Accessibility (of products)	6	6	5	6	6	29	91
PRS_3 - Attractiveness	6	5	5	5	6	27	84
PRS_4 - Mass-merchandising	6	5	4	5	5	25	78
Price							
PRI_1 - Value-for-money	5	6	7	6	5	29	91
PRI_2 - Discount promotion	5	6	7	6	5	29	91
PRI_3 - Transparency	6	6	7	6	7	32	100
PRI_4 - Comparability	6	6	7	5	5	29	91
People							
PEO_1 - High competency	6	5	5	5	7	28	88
PEO_2 - Positive interaction	6	5	6	6	6	29	91
PEO_3 - Positive working attitude	6	5	5	6	6	28	88
PEO_4 - Honesty	6	6	6	6	7	31	97
Premises							
PRM_1 - Accessibility (of location)	6	6	7	5	7	31	97
PRM_2 - Safety	6	6	6	6	6	30	94
PRM_3 - Comfortable shopping environment	6	5	5	6	7	29	91
PRM_4 - Entertainment ecosystem	6	5	5	6	7	29	91
ICT systems							
ICT_1 - Online shopping	5	5	5	6	7	28	88
ICT_2 - Speedy shopping process	6	6	7	6	7	32	100
ICT_3 - Information accessibility	6	5	6	6	7	30	94
ICT_4 - Flexible payment	6	6	7	6	7	32	100
ICT_5 - Constant interconnection	6	6	7	6	7	32	100
Customer services							
CUS_1 - After-sales services	6	6	7	6	7	32	100
CUS_2 - Effective complaint handling	6	6	7	6	7	32	100
CUS_3 - Commitment	6	6	7	6	7	32	100
CUS_4 - Personalization	6	5	5	6	7	29	91
Perceived benefits							
PB_1 - Saving	6	6	7	6	7	32	100

Factors and Indicators	Agreeing responses by store chain						%
	A	B	C	D	E	Total	
PB_2 - Convenience	6	6	7	6	7	32	100
PB_3 - Instant gratification	6	6	7	6	7	32	100
PB_4 - Recognition	6	5	7	6	5	29	91
PB_5 - Enjoyment	6	5	5	6	7	29	91
PB_6 - Risk reduction	6	5	6	6	7	30	94
Psychological ownership							
PO_1 - Sense of store and/or its website ownership	4	5	5	5	5	24	75
PO_2 - Sense of product ownership	5	5	5	5	5	25	78
PO_3 - Familiarity	6	6	7	6	7	32	100
PO_4 - Sense of closeness	6	6	7	6	7	32	100
Customer retention							
CR_1 - Preference	6	6	7	6	7	32	100
CR_2 - Frequency increasing	6	6	6	6	6	30	94
CR_3 - Feeling loyalty	5	5	7	6	5	28	88
CR_4 - Word-of-mouth	6	6	6	6	6	30	94
CR_5 - Recommendation	6	6	6	5	6	29	91
CR_6 - Involvement	6	5	5	5	5	26	81

Source: The author's works (transcribed by Nvivo and summarized by JASP)

Generally, qualitative research has remarkable outcomes. Taken together, these results provide significant insights into store operations in terms of Merchandise-related factors and Service-related factors, and the point of view of store managers about PB, CR, and PO of customers in the Vietnam context. The results of this section are developed into a questionnaire (detailed in Appendix 2). In the next section, each question is derived from a relevant indicator and evaluated by the customers through a quantitative research survey.

5.2. Quantitative Research with Questionnaire Survey

Of 1,500 shoppers from the top 5 supermarket chains, who received the questionnaire, 589 returned the responses. Overall, the response to this survey was very positive, with 493 responses, much larger than the minimum sample size of 250 so that the results of CB-SEM and PLS-SEM are similar (Hair et al., 2017), and larger than the required sample size of 451 for satisfying the requirement for significance level of 10% with β -values of 0.05 – 0.1 (Hair et al., 2021).

Based on the survey results, quantitative research is performed in two stages: (i) Descriptive study to describe the characteristics of the respondents and their psychology, behaviour, and attitudes toward the store Operational factors, PB, and

repurchase intention in supermarkets; and (ii) hypothesis testing to assess the statistical significance of findings from the samples, then to suggest the conceptual model (Saunders, Lewis and Thornhill, 2019).

5.2.1. Descriptive Study

Respondents' Demographic Information and Shopping Habits

As shown in Table 5.2, the response rate for the female group was 61.05%, considerably higher than that for the male group of 38.95%. It allows the assumption that most of the shoppers are women. The response rate was almost evenly divided among age groups or generations, as defined by McCrindle and Wolfinger (2009). In particular, Babyboom and Generation X (41-55 years of age or older), Y (26-40 years old), and Z (25 years of age or under), as definitions of generation by McCrindle and Wolfinger (2009), accounted for 35.49%, 34.89%, and 29.62% of the total number of respondents, respectively.

Regarding education, 61.26% of the total respondents have tertiary and post-graduate degrees. Therefore, not so surprising, the majority of respondents are Staff/ Worker/ Officer (29.41%), Professional/ Lecturer/ Teacher (27.99%), and Management/ Business Owners (16.84%), whose monthly net incomes are commonly in the range of over VND15 million (53.95%). In comparison, the rests account for 46.05%, including Students, Freelancers/Housewives/ Retired, and others, with relatively lower incomes than the major groups.

Interestingly, when asked about the frequency of shopping in supermarkets, 61.87% of the respondents answered that they usually do shopping in supermarkets or through websites or on applications four times a month, of which 29.82% said that they do shopping more than once a week. The results are relatively consistent with the reports of PWC Global (2021) and Statista (2021a; 2021b; 2022c). The survey results in Table 5.2 also illustrate that respondents typically choose supermarket channel to buy essential products, e.g., fresh food (64.91%) groceries (74.65%), chemical products, tools and soft goods (48.80%)

Table 5. 2: Demographic information of the respondents

Criteria		No. of Responses	%
Gender	Male	192	38.95
	Female	301	61.05
Age	25 or younger (Z)	146	29.61
	26-40 (Y)	172	34.89
	41-55 (X)	135	27.38
	Older than 55 (Babyboom)	40	8.12
Education	Postgraduate	63	12.78
	Tertiary/ College	239	48.48

Criteria		No. of Responses	%
	High school	153	31.03
	Others	38	7.71
Occupation	Student	51	10.34
	Staff/ Worker/ Officer	145	29.41
	Professional/ Lecturer/ Teacher	138	27.99
	Management/ Business Owner	83	16.84
	Freelancer/ Housewife/ Retired	60	12.17
	Others	16	3.25
Monthly net income	< VND5 Mil.	89	18.05
	VND5 Mil. < VND10 Mil.	127	25.76
	VND10 Mil. < VND15 Mil.	113	22.92
	VND15 Mil. < VND25 Mil.	93	18.86
	VND25 Mil. or more	60	12.17
	No income	11	2.24
Shopping frequency ³	Once a month	43	8.72
	Twice a month	57	11.56
	Three times a month	88	17.85
	Four times a month	158	32.05
	Five times or more a month	147	29.82
Categories (more than one option)	Ultra-fresh-food, Fresh-food and Dairy products	320	64.91
	Grocery, Confectionery and Canned goods	368	74.65
	Wine and Beverages	99	20.08
	Chemical products and Tools for cleaning/ sanitation and other soft-goods	140	48.40
	Luxury, Cosmetics and Functional products (for beauty and health care)	78	15.82
	Utensil, Household products for kitchen and Non-food-in-food products	53	10.75
	Fashion, Accessories, Sports and Textile products	92	18.66
	Decorations, Gardening, Electric products and Do-it-yourself (DIY)	61	12.37

³ Including instore and online through supermarkets' websites or applications

Criteria		No. of Responses	%
	Electronics and High-technological products	38	7.71
	Others	26	5.27

Source: The author's works (summarized by JASP)

Statistics Descriptive

Figures in Table 5.3 show the positive results of the survey with 493 qualified observations. The statistical mean values of the data are in the range of 3.487 to 3.868, and the standard deviation values range from 0.925 to 1.294. With a median of 4 of all indicators, it means that respondents mostly choose 'Agree' answers.

Table 5. 3: Statistics study results

Indicators	Observations	Mean	Median	Min	Max	Std. Deviation
PRO_1	493	3.748	4.000	1.000	5.000	1.126
PRO_2	493	3.744	4.000	1.000	5.000	1.090
PRO_3	493	3.807	4.000	1.000	5.000	1.051
PRO_4	493	3.655	4.000	1.000	5.000	1.099
PRS_1	493	3.475	4.000	1.000	5.000	0.990
PRS_2	493	3.665	4.000	1.000	5.000	1.058
PRS_3	493	3.755	4.000	1.000	5.000	1.076
PRS_4	493	3.744	4.000	1.000	5.000	1.084
PRI_1	493	3.564	4.000	1.000	5.000	1.102
PRI_2	493	3.615	4.000	1.000	5.000	1.142
PRI_3	493	3.600	4.000	1.000	5.000	1.138
PRI_4	493	3.546	4.000	1.000	5.000	1.125
PEO_1	493	3.647	4.000	1.000	5.000	0.991
PEO_2	493	3.635	4.000	1.000	5.000	0.962
PEO_3	493	3.708	4.000	1.000	5.000	0.912
PEO_4	493	3.629	4.000	1.000	5.000	1.010
PRM_1	493	3.637	4.000	1.000	5.000	1.033
PRM_2	493	3.631	4.000	1.000	5.000	0.990
PRM_3	493	3.627	4.000	1.000	5.000	0.978
PRM_4	493	3.682	4.000	1.000	5.000	1.059
ICT_1	493	3.609	4.000	1.000	5.000	1.050
ICT_2	493	3.535	4.000	1.000	5.000	1.047
ICT_3	493	3.535	4.000	1.000	5.000	1.010
ICT_4	493	3.525	4.000	1.000	5.000	1.034
ICT_5	493	3.793	4.000	1.000	5.000	1.147
CUS_1	493	3.558	4.000	1.000	5.000	1.046
CUS_2	493	3.538	4.000	1.000	5.000	1.061
CUS_3	493	3.580	4.000	1.000	5.000	0.999

Indicators	Observations	Mean	Median	Min	Max	Std. Deviation
CUS_4	493	3.617	4.000	1.000	5.000	1.076
PB_1	493	3.671	4.000	1.000	5.000	1.045
PB_2	493	3.623	4.000	1.000	5.000	1.033
PB_3	493	3.548	4.000	1.000	5.000	1.085
PB_4	493	3.864	4.000	1.000	5.000	0.995
PB_5	493	3.568	4.000	1.000	5.000	0.994
PB_6	493	3.680	4.000	1.000	5.000	0.990
PO_1	493	3.864	4.000	1.000	5.000	0.997
PO_2	493	3.667	4.000	1.000	5.000	1.000
PO_3	493	3.671	4.000	1.000	5.000	1.049
PO_4	493	3.848	4.000	1.000	5.000	1.029
CR_1	493	3.671	4.000	1.000	5.000	1.166
CR_2	493	3.582	4.000	1.000	5.000	1.210
CR_3	493	3.550	4.000	1.000	5.000	1.238
CR_4	493	3.527	4.000	1.000	5.000	1.192
CR_5	493	3.552	4.000	1.000	5.000	1.148
CR_6	493	3.477	4.000	1.000	5.000	1.289

Source: The author's works (summarized by JASP)

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.

5.2.2. Evaluation of Measurement Models

Figures in Table 5.4 show that almost all scales meet the thresholds of 0.708, recommended by Hair et al. (2017; 2019), except ICT_5 - Constant interconnection and PB_4 – Recognition, of which outer loadings are 0.665 and 0.681. Thus, it is concluded that these indicators are not consistent with others and cannot measure the construct ICT and PB.

Table 5. 4: 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
Products (PRO)	PRO_1	0.868	0.754	0.925	0.891	0.893
	PRO_2	0.871				
	PRO_3	0.885				
	PRO_4	0.849				
Presentation (PRS)	PRS_1	0.866	0.784	0.935	0.908	0.908
	PRS_2	0.884				
	PRS_3	0.887				

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
	PRS_4	0.904				
Price (PRI)	PRI_1	0.888	0.801	0.941	0.917	0.917
	PRI_2	0.901				
	PRI_3	0.893				
	PRI_4	0.897				
People (PEO)	PEO_1	0.837	0.733	0.917	0.878	0.880
	PEO_2	0.887				
	PEO_3	0.822				
	PEO_4	0.877				
Premises (PRM)	PRM_1	0.880	0.767	0.929	0.899	0.900
	PRM_2	0.878				
	PRM_3	0.876				
	PRM_4	0.869				
ICT systems (ICT)	ICT_1	0.873	0.737	0.918	0.881	0.883
	ICT_2	0.872				
	ICT_3	0.853				
	ICT_4	0.836				
	ICT_5	0.665				
Customer services (CUS)	CUS_1	0.853	0.734	0.917	0.879	0.879
	CUS_2	0.859				
	CUS_3	0.865				
	CUS_4	0.849				
Perceived benefits (PB)	PB_1	0.885	0.723	0.929	0.904	0.906
	PB_2	0.861				
	PB_3	0.873				
	PB_4	0.681				
	PB_5	0.834				
	PB_6	0.796				
Psychological ownership (PO)	PO_1	0.854	0.692	0.900	0.851	0.855
	PO_2	0.793				
	PO_3	0.828				
	PO_4	0.851				
	CR_1	0.862	0.720	0.939	0.922	0.923
	CR_2	0.831				

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_3	0.860				
	CR_4	0.843				
	CR_5	0.834				
	CR_6	0.861				

Source: The author's works (computed by SmartPLS)

After the two indicators are eliminated, the convergence validity of the conceptual model is built because the relevant metrics satisfy the thresholds. Mostly, the internal loadings of the indicators range from 0.793 to 0.904, significantly higher than the threshold of 0.708, and the average variance extracted (AVE) values of the constructs range from 0.692 to 0.801 while the threshold is 0.5 (Hair et al., 2017; 2019). Furthermore, the results in Table 5.4 also indicate that the reliability of the internal consistency of the model is confirmed when the composite reliability values, Cronbach's alpha, and rho-A are in the range of 0.900 to 0.941, 0.851 to 0.922 and 0.855 to 0.923, within the thresholds given, respectively (Hair et al., 2017; 2019).

Moreover, the Heterotrait-Monotrait Ratio (HTMT) is used to examine the discriminant validity of the model. The figures for all the constructs in Table 5.5 are less than 0.9; therefore, the discriminant validity of the measurement models has been double checked (Hair et al., 2017). Consequently, it can be concluded that the measurement models are validated.

Table 5. 5: Discriminant validity (HTMT)

	CR	PB	PO	PRO	PRI	PRS	PEO	PRM	ICT	CUS
CR										
PB	0.891									
PO	0.738	0.685								
PRO	0.873	0.893	0.711							
PRS	0.866	0.892	0.695	0.889						
PRI	0.878	0.889	0.723	0.895	0.886					
PEO	0.816	0.820	0.687	0.779	0.774	0.797				
PRM	0.877	0.895	0.707	0.873	0.868	0.878	0.804			
ICT	0.873	0.883	0.736	0.862	0.844	0.865	0.801	0.878		
CUS	0.875	0.893	0.727	0.879	0.862	0.867	0.812	0.892	0.891	

Source: The author's works (computed by SmartPLS)

5.2.3. Evaluation of Structural Model and Hypothesis Testing

As hypotheses, the evaluation of structural models will be assessed in two scenarios: (1) without moderator PO on the effect of PB on CR and (2) with

moderator PO on the effect of PB on CR. This process serves as the demonstration of the moderating role of PO in the conceptual model (Hair et al., 2017).

◆ **Scenario 1: Evaluation of structural model without moderator PO on the effect of PB on CR**

Referring to the finding presented in Table 5.6, the value of RMS_{theta} of 0.108, less than 0.120, means that the model is well fitted (Hair et al., 2017). In addition, the model's path coefficients (β) are all positive and in the range of 0.084 to 0.186 with f^2 -values of all relationships among the constructs are greater than 0.02 as a small effect size.

Furthermore, the findings positively show that the Coefficients of determination (R^2) of CR and PB are substantial, of which values are 0.787 and 0.792, more significant than the threshold of 0.75. With the f^2 values of $PB \rightarrow CR$ of 0.033, greater than 0.02, that means PB has small direct effect on CR in this study. These findings mean that the Merchandise-related factors and Service-related factors, PB and PO have direct and positive contributions to CR in the conceptual model.

Additionally, with a value of Q^2 greater than zero (Table 5.6), it allows the suggestion that the structural model has predictive relevance for a specific endogenous construct (Hair et al., 2017). Because the Q^2 values of PB and CR are positively 0.569 and 0.606, respectively, much higher than the upper threshold of 0.50, it can be suggested that the model is large predictive accuracy (according to Hair et al., 2017). Furthermore, the value of q^2 of 0.07, greater the threshold of 0.02, allows a suggestion that PB has a small predictive relevance on CR.

Table 5. 6: Suitability and predictive relevance of the model without moderator

Metrics		Estimated Model	Remarks
Root mean square residual covariance (RMS_{theta})		0.108	A well-fitting model
Path coefficients (β)	PRO \rightarrow CR	0.100	Positive
	PRS \rightarrow CR	0.113	Positive
	PRI \rightarrow CR	0.131	Positive
	PEO \rightarrow CR	0.106	Positive
	PRM \rightarrow CR	0.118	Positive
	ICT \rightarrow CR	0.113	Positive
	CUS \rightarrow CR	0.087	Positive
	PRO \rightarrow PB	0.186	Positive
	PRS \rightarrow PB	0.113	Positive
	PRI \rightarrow PB	0.130	Positive
	PEO \rightarrow PB	0.106	Positive
PRM \rightarrow PB	0.146	Positive	

Metrics		Estimated Model	Remarks
	ICT → PB	0.129	Positive
	CUS → PB	0.121	Positive
	PB → CR	0.155	Positive
	PO → CR	0.084	Positive
Coefficient of determination (R²)	CR	0.787	Substantial
	PB	0.792	Substantial
f² effect size	PRO → CR	0.021	Small effect
	PRS → CR	0.030	Small effect
	PRI → CR	0.031	Small effect
	PEO → CR	0.035	Small effect
	PRM → CR	0.024	Small effect
	ICT → CR	0.022	Small effect
	CUS → CR	0.021	Small effect
	PRO → PB	0.050	Small effect
	PRS → PB	0.040	Small effect
	PRI → PB	0.038	Small effect
	PEO → PB	0.040	Small effect
	PRM → PB	0.036	Small effect
	ICT → PB	0.029	Small effect
	CUS → PB	0.035	Small effect
	PB → CR	0.033	Small effect
	PO → CR	0.040	Small effect
Predictive relevance (Q²)	CR	0.569	Large predictive relevance
	PB	0.606	Large predictive relevance
q² effect size	PB → CR	0.07	Small predictive effect

Source: The author's works

Based on the findings, the estimated model without PO's moderating role for the effect of PB on CR is presented as Figure 5.1.

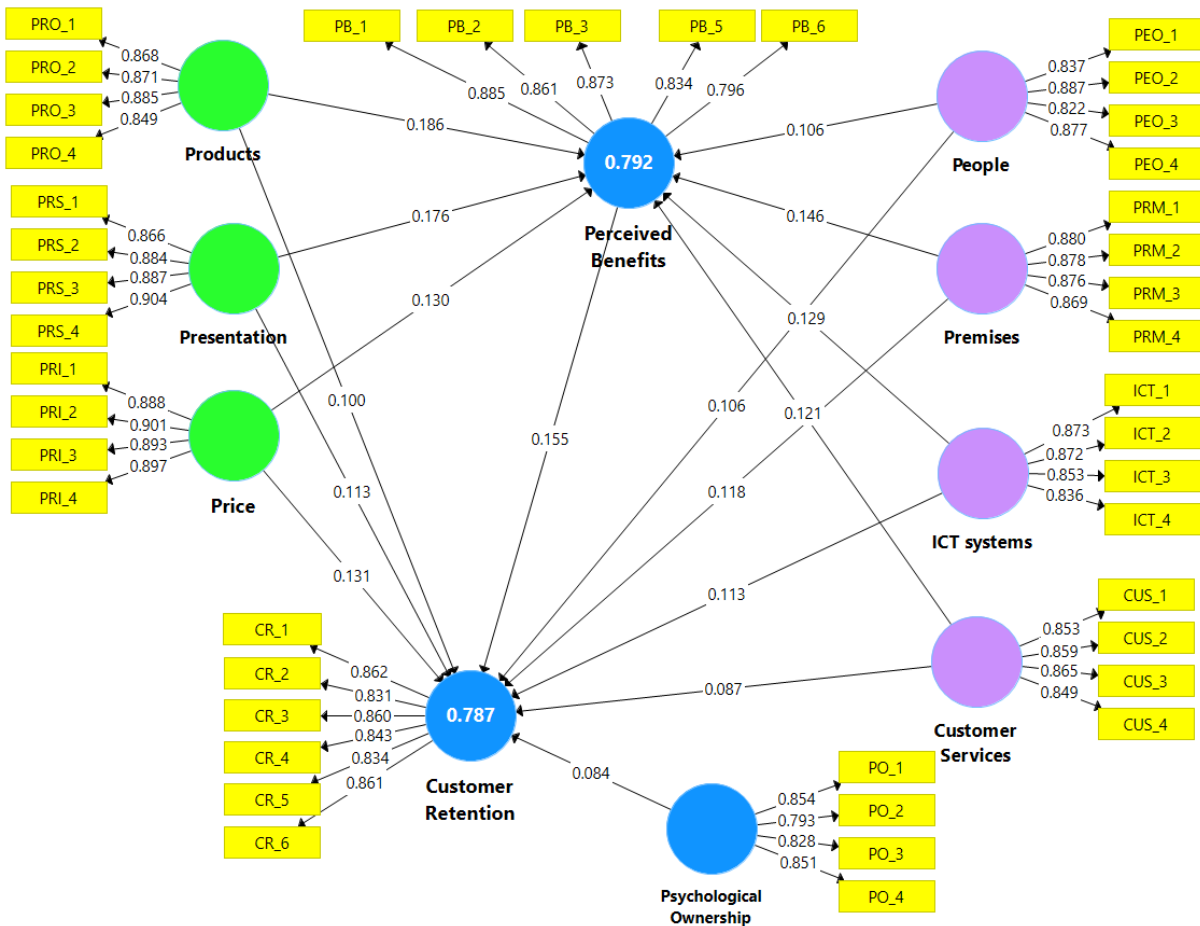


Figure 5. 1: The estimated model without moderator PO
 Source: The author's works

◆ **Scenario 2: Evaluation of structural model with moderator PO on the effect of PB on CR**

The findings in Table 5.7 show that the moderating role of PO on the effect of PB on CR (presented in the term of PO*PB factor in the path model as Figure 5.2) has made the relationships among the constructs in the conceptual model significantly changed. Particularly, the findings in Table 5.7 show that the conceptual model is still well-fitting with the RMS_{θ} value of 0.106. Especially, the moderator PO has made a decrease in the effect of PB on CR from 0.155 to 0.134 (i.e., minus 13.55%). Surprisingly, moderator PO has strengthened all direct effects of the Operational factors on CR; however, the effect changes of Merchandise-related factors and their relevant f^2 values are still under the thresholds to create the significant direct effects on CR. Moreover, under the moderating role of PO, especially, the effect of PO on CR increases remarkably from 0.084 to 0.110, that is, 30.95%, and the coefficients of determination (R^2) of CR slightly increases from 0.787 to 0.790, i.e., 0.38%. Although the Predictive relevance values (Q^2) of CR and PB have very small changes, and they are still much higher than the threshold for substantiation predictability of the model. As a consequence, the q^2 value is unchanged at 0.07 as a small predictive effect size.

Table 5. 7: Suitability and predictive relevance of the model with moderator

Metrics		Estimated Model	Remarks
Root mean square residual covariance (RMS_{θ})		0.106	A well-fitting model
Path coefficients (β)	PRO \rightarrow CR	0.113	Positive
	PRS \rightarrow CR	0.108	Positive
	PRI \rightarrow CR	0.132	Positive
	PEO \rightarrow CR	0.109	Positive
	PRM \rightarrow CR	0.123	Positive
	ICT \rightarrow CR	0.126	Positive
	CUS \rightarrow CR	0.105	Positive
	PRO \rightarrow PB	0.186	Positive
	PRS \rightarrow PB	0.176	Positive
	PRI \rightarrow PB	0.129	Positive
	PEO \rightarrow PB	0.106	Positive
	PRM \rightarrow PB	0.146	Positive
	ICT \rightarrow PB	0.129	Positive
	CUS \rightarrow PB	0.121	Positive
	PB \rightarrow CR	0.134	Positive
	PO \rightarrow CR	0.110	Positive
	PO*PB \rightarrow CR	0.056	Positive
	Coefficient of determination (R^2)	CR	0.790
PB		0.792	Substantial
f² effect size	PRO \rightarrow CR	0.024	Small effect
	PRS \rightarrow CR	0.028	Small effect
	PRI \rightarrow CR	0.031	Small effect
	PEO \rightarrow CR	0.038	Small effect
	PRM \rightarrow CR	0.026	Small effect
	ICT \rightarrow CR	0.025	Small effect
	CUS \rightarrow CR	0.026	Small effect
	PRO \rightarrow PB	0.050	Small effect
	PRS \rightarrow PB	0.040	Small effect
	PRI \rightarrow PB	0.038	Small effect
	PEO \rightarrow PB	0.040	Small effect
	PRM \rightarrow PB	0.036	Small effect
	ICT \rightarrow PB	0.029	Small effect

Metrics		Estimated Model	Remarks
	CUS → PB	0.035	Small effect
	PB → CR	0.033	Small effect
	PO → CR	0.040	Small effect
	PO*PB → CR	0.028	Small effect
Predictive relevance (Q²)	CR	0.579	Large predictive relevance
	PB	0.606	Large predictive relevance
q² effect size	PB → CR	0.07	Small predictive effect size

Source: The author's works

Indeed, the findings have demonstrated that PO not only has a direct positive effect on CR but also significantly moderates the effect of PB on CR in the conceptual model. As a consequence, the estimated model was changed accordingly and presented as in Figure 5.2.

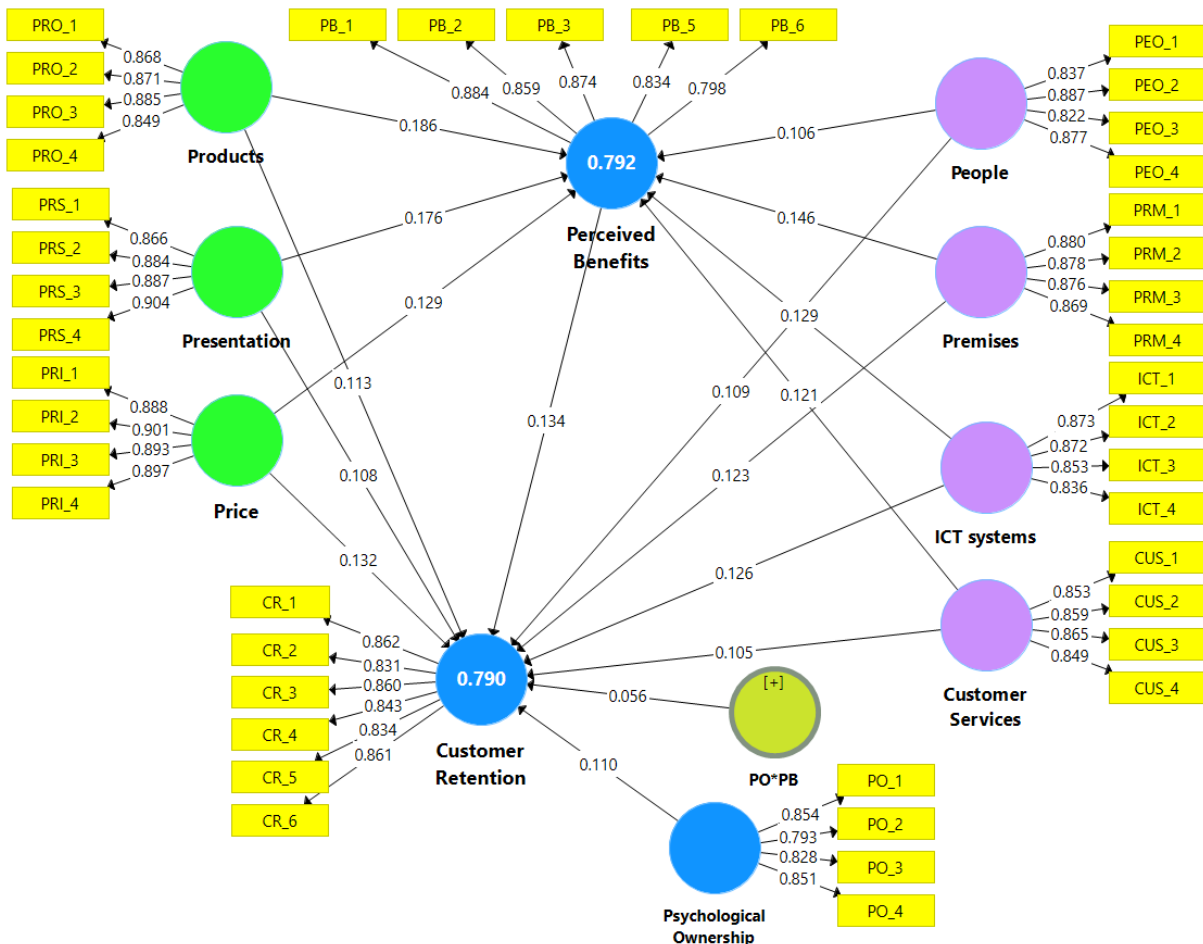


Figure 5. 2: The estimated model with moderator PO

Source: The author's works

To suggest whether the predictors significantly affect target constructs in conceptual models, the bootstrapping procedure will be used as the basis for

significance testing (Hair et al., 2017). The bootstrapping procedure is applied in this research with 5,000 samples, at the significance level of 5%, as instructed by Hair et al. (2017) with SmartPLS support.

Table 5. 8: Summary of Hypothesis testing

Hypothesis		f ²	Sample mean	t-value	p-value	Remarks
H1a	PRO → CR	0.024	0.113	2.407	0.016	Supported
H1b	PRS → CR	0.028	0.108	2.027	0.043	Supported
H1c	PRI → CR	0.031	0.134	2.602	0.009	Supported
H2a	PEO → CR	0.038	0.108	3.227	0.001	Supported
H2b	PRM → CR	0.026	0.125	2.695	0.007	Supported
H2c	ICT → CR	0.025	0.124	2.495	0.013	Supported
H2d	CUS → CR	0.026	0.105	2.402	0.016	Supported
H3a	PRO → PB	0.050	0.113	2.407	0.016	Supported
H3b	PRS → PB	0.040	0.176	3.521	0.000	Supported
H3c	PRI → PB	0.038	0.130	2.710	0.007	Supported
H4a	PEO → PB	0.040	0.105	3.023	0.003	Supported
H4b	PRM → PB	0.036	0.146	3.132	0.002	Supported
H4c	ICT → PB	0.029	0.128	3.231	0.001	Supported
H4d	CUS → PB	0.035	0.123	2.848	0.004	Supported
H5	PB → CR	0.033	0.134	2.733	0.006	Supported
	PRO → PB → CR		0.025	2.563	0.010	Supported
	PRS → PB → CR		0.024	2.019	0.044	Supported
	PRI → PB → CR		0.017	2.259	0.024	Supported
	PEO → PB → CR		0.015	2.176	0.030	Supported
	PRM → PB → CR		0.020	2.311	0.021	Supported
	ICT → PB → CR		0.017	2.078	0.038	Supported
	CUS → PB → CR		0.016	2.406	0.016	Supported
H6a	PO → CR	0.040	0.111	3.944	0.000	Supported
H6b	PO*PB → CR	0.028	0.056	2.777	0.006	Supported

Source: The author's works

Figures in Table 5.8 also show that the relationships between independent constructs, including PRO, PRS, PRI (Merchandise-related factors), PEO, PRM, ICT and CUS (Service-related factors) and the target construct CR have the β -values greater than 0.1 and f^2 values greater than the smallest threshold of 0.02 at the significance level of greater than 5%. It means that all Operational factors have positive effects on CR at the confidence level of 95%. Therefore, hypotheses H1a, H1b, H1c, H2a, H2b, H2c, H2d are accepted.

Table 5.8 illustrate that the direct positive effects of Merchandise-related factors (PRO, PRS, PRI) and Service-related factors (PEO, PRM, ICT, CUS) on PB, and the significant positive effect of PB on CR are existing with the confidence level of 95% and f^2 values greater than 0.02 as small effect size. The figures in Table 5.8 also show the indirect contributions of all Operational factors to the effect of PB on CR (detailed in the range from 0.015 to 0.025) that make up the total effect of PB on CR of 0.134. As a consequence, the study results demonstrate the mediating role of PB between Operational factors and CR at the confidence level of 95% and allow conclusion that hypotheses H3a, H3b, H3c, H4a, H4b, H4c, H4d and H5 are accepted.

Recalling Table 5.7, the finding has illustrated the positive effect of PO on CR as Scenario 1. Now, in Scenario 2 with adding the moderator PO on the effect of PB on CR, presented by “PO*PB \rightarrow CR”, the findings provide the evidence that PO significantly and positively moderates the effects of PB on CR. Statically, the effect of PO*PB on CR with the β -value of 0.056, f^2 value of 0.028, though, seems small effect at the confidence level of 95% (i.e., p-value is 0.006), it makes the remarkable changes in the model. Particularly, under the moderating role of PO, the value R^2 of CR increases from 0.787 (Table 5.6) to 0.790 (Table 5.7), i.e., 0.38%. Moreover, recalling hypothesis 6b, which suggested that PO strengthens the positive relationship between PB and CR, the figures in Table 5.8 reveal a significant positive interaction between PB and CR. In the presence of high versus low PO, the relationship between PB and CR will be more robust (as shown in Figure 5.3). Hence, it can be concluded that PO positively affects CR (shown in Scenario 1 and Table 5.6) and significantly moderates the effect of PB on CR (shown in Scenario 2 and detailed in Table 5.7 and Table 5.8) and allows the suggestion that hypotheses 6a and 6b are accepted.

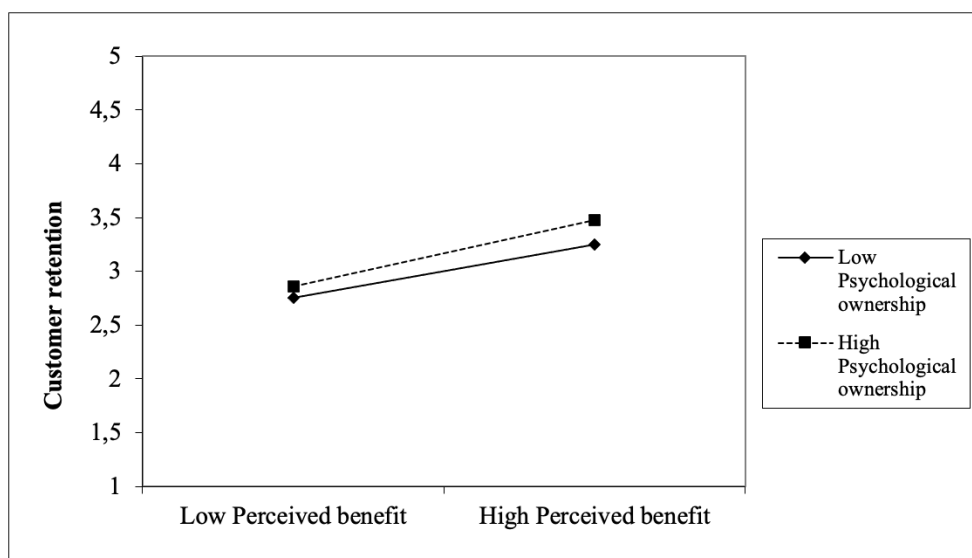


Figure 5. 3: PO positively moderates the effect of PB on CR
 Source: The author’s works

To sum up, with the acceptance of all proposed hypotheses, as a consequence, it can be concluded that:

- *Operational factors, including Merchandise-related factors, i.e., Product, Presentation, and Price, and Service-related factors, i.e., People, Premises, ICT systems and Customer services, have direct positive effects on Customer retention. Therefore, they can contribute to Customer retention in supermarkets.*
- *Merchandise-related factors and Service-related factors directly contribute to Perceived benefit which has a positive effect on Customer retention. Or in other words, Perceived benefit significantly mediates the relationships between Operational factors (i.e., Product, Presentation, Price, People, Premises, ICT systems, Customer services) and Customer retention, so it significantly improves Customer retention.*
- *Psychological Ownership positively affects Customer retention and significantly moderates the effect of Perceived benefit on Customer retention, therefore it also enhances Customer retention.*

6. DISCUSSIONS FOR FINDINGS

Positively, the study has confirmed that store Operational factors, directly and indirectly through PB contribute to CR in a retailing context. As a result, the study findings supplement 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, Gengswari and Padmashantini (2012), who argue that Operational factors may influence CR, in supermarket channels. Furthermore, the findings indicate that PB plays a critical mediating role in the relationships according to the interpretation of the commitment-trust theory developed by Morgan and Hunt (1994). The study results also reflect the point of view of Mazumdar (1993), that consumers often tend to purchase based on their careful consideration of what benefits they obtain. Although the research findings seem consistent with previous studies, which discover that customers can gain benefits when shopping in physical stores, it is also based primarily on an operations perspective to discuss the dimensions of PB and the relationship between PB and CR in an omnichannel retail context.

Interestingly, the study first discovers that PO significantly influences CR and positively moderates the effect of PB on CR in the retail industry. This finding contributes to the previous studies showing that PO not only impacts consumer behaviour (Peck and Shu, 2018), customer satisfaction and loyalty (Kim et al., 2021; Lee, Choi, and Kim, 2021; Zhao et al., 2016), customer trust, satisfaction, PB (Lee, Choi and Kim, 2021) but also improves CR and moderates the effect of PB on CR in supermarket business. This result also supports the concepts of Morewedge et al. (2021), De Canio and Fuentes-Blasco (2021), De Vries et al. (2018), Peck and Shu (2009) that PO is positively associated with consumer demand, willingness to pay, and ‘word-of-mouth’, which are some of the dimensions of CR.

Possible sources of CR are Operational factors with PB moderating role and under the PO moderating effect, which have been proved through the survey results and will be thoroughly discussed in the answers to the research questions below.

6.1. RQ1: Which Operational Factors Contribute to Customer Retention in Supermarkets?

On the first research question of the thesis, it is found that Operational factors, in the terms of Merchandise-related factors (i.e., Product, Presentation, and Price), and Service-related factors (i.e., People, Premises, ICT systems, Customer Services) positively affect CR in retail. Particularly, it means that these Operational factors can contribute to CR in supermarket channel in two particular aspects relating to Merchandise and Services offered to customers, detailed as follows:

6.1.1. Merchandise-related Factors Directly Contribute to Customer Retention in Supermarkets

It is interesting to note that Products, Presentation and Price as the key Merchandise-related factors can contribute to CR (as the acceptance of H1a, H1b, and H1c). The study results also allow an implication that Products, Presentation and Price are the prerequisites and the first focus to attract and retain customers' purchases in supermarkets. The contribution of each Merchandise-related factor to CR is thoroughly discussed as follows:

Products

Products, or so-called merchandise, are always omnichannel retailers' maximum concentration to help shoppers have the best one-stop-shopping experience and encourage them to repurchase. Therefore, the *diversification of assortments and categories*, which depends on store format and size (Vedamani, 2017), is one of the first considerations for customers who prefer to shop in supermarkets and hypermarkets (Zentes, Morschett and Schamm-Klein, 2017). Practically, the figures in Table 5.2 show that almost all respondents agree that they can buy various types of essential products from supermarkets, such as Ultra fresh-food, Fresh-food and Dairy products (64.91%), Grocery, Confectionery and Canned goods (74.65%), and Chemical products and Tools for cleaning/ sanitation and other soft-goods (48.40%) and even wine and beer (21.62%). Moreover, customers can find and purchase many kinds of non-food products, such as Fashion, Accessories, Sports and Textile products, Luxury, Cosmetics and Functional products (for beauty and health care), Utensils, Household products for kitchen and Non-food-in-food products, Decorations, Gardening, Electric products and Do-it-yourself (DIY), and Electronics and High technological products at the stores or through their websites or applications. Thanks to the product categories offered with a variety of brands, imported/ domestic/ regional specialties, signature and own brand products in supermarkets (Borle et al. 2005; Emrich, Paul and Rudolph, 2015; Varley, 2006), customers can easily find their desired or *favourite products*. Because product quality is the commitment of retailers to customers (Vedamani, 2017; Berman, Evans and Chatterjee, 2018), customers perceive that the *quality of products* in supermarkets is well controlled and guaranteed. Therefore, customers can check quality, expiration date, specifications, and even trace the origin of the product themselves. Moreover, respondents reveal that they keep shopping in supermarkets because they can *physically experience* or sensuously assess their desired physical products by seeing, touching, tasting, smelling, trying, and testing before deciding a purchase.

Presentation

Another aspect of the merchandising process is the presentation of products, which receives a very positive assessment from the respondents because it increases the opportunities for customers to approach the products for purchase

(Varley, 2006; Vedamani, 2017). Whenever customers have the intention to buy favourite items in supermarkets, they usually expect that the products are *available* instore, or especially in the right places; otherwise, customers will feel disappointed if they deal with out-of-stock (Amorim and Saghezchi, 2014; Kim, Lee, and Park, 2014; Pal and Byrom, 2003). The research findings reveal that customers feel satisfied when they can find their desired products on the shelves or in the cabinets in the sales areas of the store. Moreover, in practice, products in supermarkets are well-displayed as store layout, presentation standards, and specifications so that customers can access them easily (Amorim and Saghezchi, 2014; Dokcen, Obedgiu and Nkurunziza, 2021; Ganapathy, 2017; Goraya et al., 2020; Irfan, Siddiqui and Ahmed, 2019). Shoppers also respond when shopping in supermarkets, they can find and pick up the goods easily because of store *accessible presentation*. For Amorim and Saghezchi (2014) and Kim, Lee, and Park (2014), well-displayed products can ensure eye-catching and *attractiveness* in store for customers. In fact, the respondents to the survey claim that product presentations with relevant signage on the shelf attract them. Another dominance of supermarkets' product presentation is *mass-merchandising*, which means that products are displayed in large quantities in store (Dokcen, Obedgiu and Nkurunziza, 2021; Kim, Lee, and Park, 2014). The results of the study support the concept of these authors that shoppers can find and purchase goods with large quantity (if they need) in supermarkets instead of wet markets or convenience stores, which are usually in small formats. Practically, supermarkets have various presentation standards in the form of planograms or space allocation plans for store staff to display and restock the shelves (Berman, Evans and Chatterjee, 2018; Dunne, Lusch and Carver, 2011; Fernie, Fernie and Moore, 2015; Vedamani, 2017; Zentes, Morschett and Schamm-Klein, 2017). Consequently, the presentation of products in supermarkets is one of the decisive Operational factors and is much more prominent than other retailer formats in enhancing customer purchases and stimulating CR.

Price

Price is one of the components of the retail mix and is highly associated with the product and the quality of the product. Providing quality products at reasonable prices is one of the critical competitive strategies of supermarkets, while other non-store retailers or their suppliers are also using low prices as a competitive advantage (Vedamani, 2017). However, the study positively discovers that shoppers are satisfied because they can get what they buy due to the reasonable prices offered by a supermarket with guaranteed relevant quality. In other words, they feel "*value-for-money*" for the products purchased in supermarkets. This finding is consistent with recent research by Graciola et al. (2018), Hanaysha (2018), Harris et al. (2017), Jebarajakirthy et al. (2020), and Swoboda and Winters (2021). Today, discount price promotion is not only a marketing program, but also a means to promote various lines of merchandise instore operations (Vedamani,

2017). As the study results, shoppers admit that they are happy with store price discounts, which are regularly applied for buying large quantity, promotion programs, seasons, geographical locations, etc. Furthermore, Amorim and Saghezchi (2014), Graciola et al. (2018) and Nguyen and Klaus (2013) claim that supermarket prices are fair and transparent. This opinion also reflects the current retailing context when respondents feel committed because the prices quoted in supermarkets and their websites are *transparent* with taxes and other charges/fees included and fairly without bargain. Furthermore, due to transparent and public quotations, customers can *compare* prices between brands, sizes, and colours of products between supermarkets and other channels before purchasing.

6.1.2. Service-related Factors Directly Contribute to Customer Retention in Supermarkets

Another important finding was that People, Premises, ITC systems, Customer services as Service-related factors can contribute to CR (as per the acceptance of hypotheses H2a, H2b, H2c, H2d). In other words, it also emphasizes that the Service-related factors in supermarket channel are essential to delivering products to customers perfectly; therefore, they become more dominant in enhancing CR compared with other retail channels, detailed as follows:

People

Indeed, the current thesis has demonstrated similarity with existing research that retail staff as ‘brand ambassadors’ instore can create an important source of customer value and retention (Berman, Evans and Chatterjee, 2018; Buttle, 2009; Pal and Byrom, 2003; Zentes, Morschett and Schamm-Klein, 2017). Research findings also develop the concepts of these authors with the view of customers that supermarket staff are highly *competent*, for example, they are well educated, knowledgeable, professional, intelligent and skilled, which makes customers satisfied when shopping. Additionally, Amorim and Saghezchi (2014), Dokcen, Obedgiu and Nkurunziza (2021), Hanaysha (2018), Siu and Cheung (2001), Slack, Singh and Sharma (2020) and Swoboda and Winters (2021) have similar research results showing that *positive interaction* and *working attitude* of staff can support customer loyalty and patronage. Practically, the respondents confirm that they usually do shopping in supermarkets because employees are always friendly with an attitude of respect and empathy when interacting with customers. In addition, they feel comfortable and happy because the store employees are helpful to shoppers with respect and empathy to offer personal attention, meet their requirements, or exceed their expectations. Furthermore, respondents show that the *honesty* of staff instills confidence in customers and shows great interest and motivation to resolve their problems or difficulties. This finding also supports the opinions of Dokcen, Obedgiu and Nkurunziza (2021), Siu and Cheung (2001), Slack, Singh and Sharma (2020) that store staff can create customer trust and patronage with their business ethics and responsiveness.

Premises

According to Vedamani (2017), choosing the appropriate premises for a supermarket will usually lead to a successful business, and the first aspect of the supermarket premises is accessibility. Practically, the results of this thesis support evidence from previous observations that premises factors are critical aspects of service operations in supermarkets (e.g., Amorim and Saghezchi, 2014; Blut, Teller and Floh, 2018; Dokcen, Obedgiu and Nkurunziza, 2021; Kim, Lee, and Park, 2014; Vedamani, 2017). These authors also claim that *accessibility* was one of the prerequisites for the convenient location of stores to attract customers. Almost all of the respondents agree that they regularly do shopping at the supermarkets, which are easily accessible and reachable by foot, bicycles, motorcycles, cars, or public transportation means. Interestingly, the study results show that the supermarket channel is the most preferred choice for shopping because the store format, design, layout, and interior are standardized to ensure a hygiene, safe and secure shopping environment. The findings can support the results of previous studies by Amorim and Saghezchi (2014), Dokcen, Obedgiu and Nkurunziza (2021), Hanaysha (2018), Kim, Lee and Park (2014), Slack, Singh and Sharma (2020), Swoboda and Winters (2021) that a *safe shopping environment* cannot only make customer satisfaction but also create customer trust and retention. In practice, supermarket designs usually follow ISO 9001: 2015 – Quality management systems - requirements and ISO 22000: 2018 - Food safety management systems - requirements for any organization in the food chain. Especially in Vietnam, all retail buildings must meet Vietnam's safety, security, and hygiene standards as mandatory requirements. Furthermore, since the early 2000s, 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 and Rahim, 2013; De Nisco and Napolitano, 2006; Sit, Merrilees and Birch, 2003). According to Amorim and Saghezchi (2014), Berman, Evans and Chatterjee (2018); Dokcen, Obedgiu and Nkurunziza (2021), Kim, Lee, and Park (2014), Siu and Cheung (2001), Slack, Singh and Sharma (2020), 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. This concept demonstrates that customers can obtain the convenience of shopping in supermarkets with modern infrastructure, convenient equipment, and facilities such as elevators/ escalators, lockers, parking places, designated areas for smokers and disabled services. Currently, retailers pay more investment in their stores as an *entertainment ecosystem* with the integration of multi-services in one place for customer experience and enjoyment for attracting customers and increasing CR. The results of the survey indicate that shoppers can enjoy shopping in supermarkets or hypermarkets, which form an entertainment ecosystem with food corners, cinemas, entertainment and game areas, sports, health and beauty care services, bookstores, etc. This finding also supports the concepts of De Nisco

and Napolitano (2006), Elmashhara and Soares (2019), and Sit, Merrilees and Birch (2003).

ICT systems

Thanks to ICT systems, online shopping is a vivid experience generated to increase customer convenience (Alexander and 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, on supermarket websites or applications. In fact, supermarkets' *online shopping* channels are effective and helpful for customers to find products, order, and receive goods anytime, anywhere without having to go to physical stores, especially during the Covid-19 outbreak. Similarly, in a report by Statista (2021f) on the change in shopping behaviour due to the COVID-19 pandemic in APAC countries, 50% to 67% of shoppers mix instore and online shopping, while 17% to 42% of others switch from instore to online only (except in Japan). The present study also implies that shopping trips to physical stores can be reduced, but customers still retain their purchases with supermarkets through shopping websites or applications. Practically, ICT systems involve all activities in store operations, making supermarket services more effective and efficient (Goraya et al., 2020; Harris et al., 2017; Indiani and Febriandari, 2021; Siu and Cheung, 2001; Slack, Singh and Sharma, 2020; Swoboda and Winters, 2021). Therefore, ICT systems primarily enhance the *speed of the shopping process*, generating effectiveness and helpfulness for customers in both instore and online. Indeed, research results show that supermarket shoppers can obtain convenience such as saving time for product searching and picking, accurate payment, and fast delivery thanks to ICT. With regard to information sharing with customers or partners, it is impossible without systematic applications of ICT. In previous studies, scholars claimed that ICT allows customers to *access retailer information*, including store locations and business time, information about products and services, promotion programs, etc., via PC or mobile devices at any time (Amorim and Saghezchi, 2014; Bojei et al., 2013; Goraya et al., 2020; Swoboda and Winters, 2021). In fact, thanks to ICT, shoppers can easily access supermarket information to search, check or compare prices between channels, receiving promotional information to encourage shopping as respondents confirmed. Furthermore, one of the crucial applications of ICT is non-cash payment for both instore and online transactions (Amorim and Saghezchi, 2014; Dokcen, Obedgiu and Nkurunziza, 2021; Siu and Cheung, 2001; Swoboda and Winters, 2021). Thus, shoppers admit that they can make payments easily because supermarkets accept various alternative payments, e.g., cash, credit/debit card, store card, digital/mobile payment, electronic wallet, voucher, etc., for both instore and online shopping.

Customer services

Customer service is one of the most prominent aspects of store operations in supermarkets. According to Amorim and Saghezchi (2014), Dokcen, Obedgiu and

Nkurunziza (2021), Oliver (2014), Siu and Cheung (2001), and Swoboda and Winters (2021), customers can benefit from additional *after-sales services*, whether they purchase online or instore, and the effective handling of their complaints. Positively, the thesis finding to emerge from the analysis is that customer services of supermarkets can contribute to PB and CR. The survey confirms that they benefit from the free *after-sales services* of supermarkets, such as fast same-day delivery, warranties, free gift wrapping, and other additional services, so the supermarket channel is usually their first choice. Furthermore, experimental evidence has illustrated that supermarkets are more dominant than other retail channels because customer care maximizes customer satisfaction and personalized services to motivate customers' positive emotions of customers and repurchasing of customers. In particular, respondents admit that with an *effective complaint handling process*, customer complaints are implemented effectively, easily exchanged or returned, and mainly focus on customer benefits for both instore and online transactions. Furthermore, this result can be partially explained and supported by the concepts of Blut, Teller and Floh (2018), Kumar, Batista, and Maull (2011), Kumar and Reinartz (2018) and Zhao and Wang (2021) that the effect of Operational factors on PB and CR was successful as it was able to identify *store commitment* as a dimension of customer services. Practically, shoppers claim that they believe that available services, e.g., support services and exchange/ return/ cashback guarantee, are always provided right the first time as a commitment of supermarkets. This finding may support the previous studies of Slack, Singh and Sharma (2020), Bordoloi, Fitzsimmons and Fitzsimmons (2019), and Patel, Guedes and Pearce (2017), who admit that services provided as commitment are indispensable to showing consistent responsibilities of supermarkets to customers and ensuring customer satisfaction. Last but not least, as a typical specification of service operations, supermarket customer services are personalized (Bojei et al., 2013; Kim, Lee, and Park, 2014; Sands, Oppewal and Beverland, 2015; Slack, Singh and Sharma, 2020). In other words, supermarkets are always ready to provide prompt personal assistance to customers who have special requests with individual attention or sincere interest in solving customers' problems, as respondents agree.

6.2. RQ2: Does Perceived Benefit, Generated by Operational Factors, Enhance Customer Retention in Supermarkets?

With respect to the second research question, it was found that PB, which was positively affected by Operational factors (i.e., Product, Presentation, Price, as Merchandise-related factors, and People, Premises, ICT systems, Customer Services as Service-related factors), can contribute to CR. Or, in other words, the study has shown that PB plays a mediating role in the relationships between Operational factors and CR; therefore, PB can improve CR in supermarkets.

Through the in-depth interviews with store managers and a questionnaire survey with shoppers of the top five retailers in Vietnam, the thesis has demonstrated that

Operational factors (i.e., Products, Presentation, Price, People, Premises, ICT systems, and Customer services) have direct and indirect positive effects through PB on CR in supermarkets. In other words, Operational factors directly contribute to PB, and then PB increases its effect on CR, which broadly supports the works of Emrich, Paul and Rudolph (2015), Saini and Sahay (2014), and Zhu, Goraya and Cai (2018) in this area linking PB and CR.

Consistent with the literature (e.g., Dokcen, Obedgiu and Nkurunziza, 2021; Emrich, Paul and Rudolph, 2015; Graciola et al., 2018; Harris et al., 2017; Johnston et al., 2021; Kim, Lee, and Park, 2014; Kyguoliene, Zikiene and Grigaliunaite, 2017; Masri et al., 2021; Noyan and Simsek, 2012), this research finds that shoppers firmly perceive the benefits when shopping in supermarkets. One of the most valuable benefits when shopping in a supermarket is probably *saving*. Particularly, customers can save shopping time and efforts to find products due to one-stop shopping with various assortments of well-presented products in stores or effectively designed on websites, quick check-out process, and online shopping websites or applications to reduce the time of traveling, picking, or queueing. In addition, shopping in supermarkets, customers can save money due to reasonable product prices and discount policies and benefit from deferred payment by using credit cards or the promotion of e-payments due to the support of ICT systems. Following the results of previous studies, the thesis has shown that shoppers strongly perceive the *convenience benefits* services when shopping in supermarkets, such as open hours for instore shopping or '24/7' for online order placement, instore shopping environment, effective purchasing process, after-sales services at any time, quick exchange/ return guarantee for both instore and online shopping. As a result, with the perception of the benefits of supermarket services, respondents believe that they can have *instant gratification* or immediate satisfaction with their purchases due to store staff, shopping environment, facilities, quality products and services, reasonable price and payment method, etc. Furthermore, the findings indicate that customers not only get *enjoyment* in the shopping environment and entertainment of supermarkets but also experience social activities, interact with employees or friends/relatives, or enjoy and reward the shopping experience. Additionally, this thesis results also support previous works by Emrich, Paul, and Rudolph (2015), Hanaysha (2018), Kim, Lee, and Park (2014), Indiani and Febriandari (2021), and Shiu (2021) that the reduction of shopping *risk* is one of the components of PB. In fact, when shopping in supermarkets, customers can reduce risk due to safety, security, hygiene shopping environment, high level of reliable product quality, guaranteed services as commitment and financial risk-free. As a result, research suggests that there are strong links between Operational factors and PB (as the acceptance of hypotheses H3a, H3b, H3c and H4a, H4b, H4c, H4d).

When recalling Hypothesis H5, which is accepted based on the analysis of the collected data (summarized in Table 5.8), another important finding of this thesis

is that PB significantly mediates the relationships between Operational factors and CR. In other words, PB is contributed by Operational factors, and then it directly affects CR. Practically, the respondents who usually shop in supermarkets admit that they continue to do shopping at supermarkets as their *preference* because of the benefits they are offered and store performance. They also agree that they can *increase the frequency* of shopping or e-shopping in their preferred supermarkets as their first choice. From data analysis, it can be inferred that customers, who *feel loyalty* to the supermarket(s), will not switch to other retail channels despite price sensitive or any experienced problem, tend to retain shopping in their preferred stores longer. Though the study is based on an operations perspective, its findings also support the previous research with a marketing perspective of Clottey, Collier and Stodnick (2008), Damiri and Raharja (2017), Goraya et al. (2020), Mahmoud, Hinson and Adika (2018), Ray and Chiagouris (2009), Slack, Singh and Sharma (2020) about CR's components. Practically, respondents affirm that they are willing to say positive things, *as word-of-mouth*, about preferred stores, *recommend* others to do shopping in supermarkets or through supermarkets' websites or applications, *get involved* in or provide suggestions for the store improvement, and have greater likelihood of retention. It is consistent

6.3. RQ3: Does Psychological Ownership Affect Customer Retention and Interfere with the Relationship between Perceived Benefit and Customer Retention in Supermarkets?

The third research question in this thesis was answered by the results of the study. Indeed, the most exciting finding of this study is to demonstrate that PO positively affects CR and significantly moderates the effect of PB on CR in a retail context. A possible explanation for this may be that when a customer has a PO towards a preferred supermarket, they probably will continue to shop at that supermarket. Furthermore, when a person has a higher PO in a supermarket, they are often more interested in the benefits they can get from shopping and will be more inclined to continue shopping in that supermarket. The present study also supports the concept of Li and Atkinson (2020) that a shopper who has a higher PO on a certain product usually feels happier after possessing it.

Practically, almost all respondents confirm that they usually do shopping in a preferred supermarket or on a website or application because they feel '*it is theirs*'. Similarly, they also reveal that a strong sense of *ownership of an unpaid product or service* can motivate people to visit the store to purchase. Additionally, the study shows that the *sense of familiarity of customers*, redefined as a strong sense of connection with supermarkets and good knowledge of the store and its products and services (as experts' idea), can prolong their retention. Also, with the *sense of closeness* to a supermarket, customers usually feel like and want to spend time with it. From the data analyzed, the research has also demonstrated 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. Statistically, a surprising finding of this thesis is that while PO moderates PB's effect on CR, it also increases the direct effects of Operational factors on CR. It would be very interesting to do further research in the future.

In summary, as the main aim of the thesis, the research results have developed and validated the retail operational model for supermarket channels that increases customer retention in the long term by (i) identifying the key Operational factors in terms of Merchandise-related factors, that is Products, Presentation, Price, and Service-related factors, that is People, Premises, ICT systems, and Customer services, which directly and positively affect CR; (ii) investigating the direct effect of PB, generated by Operational factors, on CR, or its mediating role in the relationships between Operational factors and CR; and (iii) examining the direct effect of PO on CR and its moderating role on the relationship between PB and CR. With the research results that all Operational factors positively affect CR, directly and indirectly through PB, the thesis not only reinforces the concept that customer retention is operationalized in the retail sector, but also demonstrates that store operations significantly contribute to creating customer values and benefits that can increase CR in supermarkets in the long term. Furthermore, with the finding that PO has a positive effect on CR, the thesis has demonstrated that PO is one of the critical factors that strongly can influence customer shopping behaviour and increase the possibility of customer retention. Simultaneously, PO's positive moderating role in the relationship between PB and CR shows that a customer with a high level of Psychological ownership will pay more attention to the benefits and will be more likely to stay in a certain supermarket.

The study result is not very encouraging because it cannot prove that the positive effects of Operational factors, PB and PO on CR in supermarkets are visible to the naked eye (due to the small effect size of f^2 , as Cohen, 1992). Indeed, the study has a statistically significant meaning to provide a probable implication that the effects of these predictors on CR; although, they are sometimes not recognized by customers until they actually experience and receive the benefits for what they pay, instead of only the best products or services and the lowest price (Mazumdar, 1993).

7. CONTRIBUTIONS

7.1. Theoretical Contributions

CR has always been an exciting topic for scholars who believe that CR and CR improvement may be the results of marketing campaigns or activities. However, this thesis has newly contributed to the concept of operationalization of CR developed by Bojei et al. (2013) and the emerging concept of the marketing-operations interface in omnichannel retail developed by Bijmolt et al. (2021). Indeed, the thesis demonstrates that increasing CR is also the responsibility of operations, accompanying marketing, in the retail sector through the validated operational model for the supermarket channel. Notably, the model shows that Operational factors and PB generated by store operations are critical antecedents of CR. This finding allows for confirmation that customers keep shopping in supermarkets (both instore and online) because of what they benefit from their purchases, while satisfaction or loyalty cannot always guarantee the possibility of customer repurchase or retention (Bojei et al., 2013; Stevenson, 2018).

Furthermore, based on the commitment-trust theory (Morgan and Hunt, 1994), the research contributes to existing studies by providing a deeper insight into operations, in the terms of Operational factors which may contribute to CR directly and indirectly through PB. Particularly, newly developed constructs, namely, Merchandise-related factors (i.e., Products, Presentation, Price) and Service-related factors (i.e., People, Premises, ICT systems, Customer services) with validated relevant indicators, can be used to predict shopping behaviour in the retailing context.

Interestingly, this study is the first comprehensive investigation of the positive effect of PO on CR and its moderating role in the relationship between PB and CR in the retail industry. The findings allow an explanation that the higher level of PO moderator, the more robust the relationship between PB and CR. In other words, there may be empirical evidence of consumer behaviour theory in the retail industry that a customer with a high level of PO will pay more attention to benefits and is more likely to continue shopping in a certain supermarket.

7.2. Practical Contributions

Firstly, the findings show that customers are still embedded in supermarkets, which offer both instore and online channels for shopping, due to Merchandise-related factors and Service-related factors and the benefits generated from these Operational factors. Indeed, with the characteristics of the most modern retail model today, omnichannel retailers can offer their customers with a variety of products and dominant services that are more convenient than other retail channels. Therefore, the research has the critical implication that supermarkets should place greater emphasis on an operations strategy in the complex context to maximize customer benefits and increase CR for both instore and online channel for long term.

Secondly, the current study also provides practitioners with the operational model for the supermarket channel to prioritize their operations to retain both instore and online customers. This model also implies for practitioners that customers are more likely to retain shopping in supermarkets due to perceived benefits contributed by Merchandise-related factors and Service-related factors because customers pay more attention to what they experience and benefit against what they pay instead of only the best products or the lowest price. By applying this operational model, practitioners can predict customer shopping behaviour in a new normal situation. When shoppers have switched from instore shopping to online shopping or a combination of instore and online shopping, the online shopping channel becomes a salvage of supermarkets to retain customers, while physical stores are indispensable for customer to gain experience and benefits. Therefore, supermarket operations should be adapted and improved in both instore and online channels as their competitive advantage and the future trend.

Thirdly, 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 skilled staff, effective and convenient process for both instore and online shopping, comfortable shopping environment, and quality services for customer experience to gain customer trust, satisfaction, PB, and CR to maintain the long term relationship as the commitment-trust framework applied in business practice.

Lastly, this study was carried out in Vietnam, a country with a retail market and a shopping culture quite similar to those of ASEAN, so the study results can be a reliable reference for both researchers and practitioners in emerging markets in the region.

8. CONCLUSION

8.1. Conclusions of the Thesis

The thesis has developed and validated the retail operational model for supermarket channels to increase CR in the long term by identifying the key Operational factors, i.e., Products, Presentation, Price, People, Premises, ICT systems and Customer services. It also demonstrates the direct effect of PB on CR and the mediating role of PB in enhancing the relationships between Operational factors and CR based on commitment-trust theory in a retailing context. Furthermore, the present study investigates how PO affects CR and moderates the effect of PB on CR.

One of the most obvious findings of this study is that all integrated Operational factors, directly and indirectly, affect CR through PB. The second significant finding is that PO significantly affects CR and positively moderates the effect of PB on CR. This research provides insight into Operational factors in supermarkets and how they contribute to customer benefits and improve CR. It suggests that store operations greatly support the success of loyalty programs in supermarkets. Taken together, this research implies that understanding the effects of 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.

8.2. Limitations of the Thesis

The research was carried out during the peak time of the COVID-19 pandemic, which has not been completed up to now; but the thesis did not explore the effect of Covid-19 measures as a critical component in the conceptual model. As a result, the thesis could not reflect the impacts of the pandemic-related factor on retailer operations and customer shopping behaviour or psychology during the tough time.

Unexpectedly, with the small effect size f^2 and q^2 of all relationships among predictors (independent, mediating and moderating variables) and the target construct CR (dependent variable), the study could not prove that their impacts and mediator's (PB) predictive relevance were very strong and visible in actual observations (according to Cohen, 1992), despite their theoretical and statistical significance (with the values of $\beta > 0.10$ and p -values < 0.05). However, Hair et al. (2019) claim that the two metrics f^2 and q^2 may be redundant somewhat.

Another limitation of this study is that the authors did not consider and examine the direct effect of PO on BP and how PO moderated the effects of each operational factor on CR. Additionally, the author neglected to discuss the changes in the relationships between Operational factors and CR after adding the PO moderating role of PO to the estimation model, although they were surprisingly discovered during the data analysis process.

The generation of respondents, one of the most important factors strongly impacting consumption behaviour (Peck and Shu, 2018), was recorded when collecting and analyzing the data; however, it was not studied as a control variable that could cause differences in customer shopping behaviour, psychology, and perception in the PB of shopping and CR in the supermarket channel.

8.3. Suggestions for further research

Although the thesis could not demonstrate the visible integration and direct effect of all proposed factors on CR in supermarket channel, it is essential to re-investigate the relationships of these constructs thoroughly to develop a set of operational quality measurement that can be applied to all retailers based on the validated constructs and relevant indicators.

Furthermore, the research proposal is also open to future studies in retail when the COVID-19 pandemic is completely eliminated. Intensive investigation of the changes of shopping behavioural or psychological and how pandemic-related factors affect on store operations, shopping behavioural/ psychological changes after the pandemic eliminated are strongly suggested for further research in retail.

Additionally, intensive and thorough research should be carried out to investigate how PO moderates the effects of each operational factor on CR and explore the optimistic possibility that PO can strengthen the relationships between Operational factors and CR while it moderates the effect of PB and CR in any retail format.

Furthermore, Gen-Zers, who were born and are growing up in the digital era and have overcome the negative impact of pandemic, will become the majority consumers in the near future; it should be interesting to study generation, especially Gen-Z, and their shopping behaviour and psychology as a critical factor affecting customer retention with marketing-operations interface when customer retention is operationalized and responsibility of both marketing and operations in retail.

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Appendix 1: Interview protocol (for qualitative research)

I. Introductory

- Researcher self-introduction
- Inform about the purpose of the interview.
- Researcher commitment: (1) confidential for all information provided (answer recorded to be destroyed after transcribed); (2) obtain approval of superior before data published; (3) no harm to any individual or organization.

II. Open statement and instructions

- Why an interviewee is selected (experience, position relating to the research area and objectives)
- How to answer the questions
- Valued answers/ contribution (with agreement rate of 60%) to be added to the research for further learning and to be shared with your company/ store for further improvement (if necessary or required)

III. Interviewee process

- ◆ The semi-structured interview protocol (in the form of questions and relevant probes in Vietnamese and English) will be sent to interviewees for reference and preparation before interview conducted.
- ◆ Appointments will be confirmed by interviewees before interview is conducted.
- ◆ Interview conducting:
 - Time: no longer than one hour
 - Language: Vietnamese
 - Type of interview: Face-to-face, online via Google meet or Microsoft team
 - Recoding: Audio or video files to be transcribed by Nvivo, which will be disposed of immediately after research has finished.
 - Commitment letter to be signed or confirmed by email by store managers and archived by authors.

III. Questionnaire

4.1. About interviewees' background

- 4.1.1. How long have you been working for this store/company (years/months)?
- 4.1.1. How long have you been in the position... of... department?
- 4.1.1. What is your highest degree and major?
- 4.1.1. Briefly describe your roles/ duties in the company/ store?

4.2. Questions about Key Merchandise-related factors

- 4.2.1. In your opinion, what **Key Merchandise-related** factors can impact on customer benefits and customer retention for your company/ store? [Probes]: Besides the factors such as **Product, Price, Presentation, Stock**, etc., do you think whether there are/is any else? Rationale for the proposal?
- 4.2.2. For **Product** factors, do you think the indicators below contribute to customer benefits and enhance customer retention for your company/store?
- i. **Diversified Assortment:** *Food, Non-Food, Textile, Household, Electrical/ Electronic, etc., with plenty of product categories*
 - ii. **Favourite brands:** *Variety of brands, signature, specialty and own-brand products.*
 - iii. **Quality assurance:** *Well controlled and guaranteed, i.e., quality, expiry date, specifications, and traceable origin.*
 - iv. **Physical experience:** *Sensuously assess the physical products*
 - v. *If anything else, please provide:*
- 4.2.3. For **the presentation** factor, do you think the indicators below contribute to customer benefits and enhance customer retention for your company/store? Please provide if anything else?
- i. **Availability:** *Products and brands desired are always available in sales areas, not out-of-stock.*
 - ii. **Accessibility:** *Products are displayed as store layout and standards according to product categories and specifications, easy to find and pick up.*
 - iii. **Attractiveness:** *Ensure eye-catching with shelf signages.*
 - iv. **Mass-merchandising:** *Large quantities, easy to buy in high volumes with many types, brands, sizes, forms of packaging, etc.*
 - v. *If anything else, please provide:*
- 4.2.4. For the **Price** factor, do you think the indicators below contribute to customer benefits and enhance customer retention for your company/store?
- i. **"Value-for-money":** *Not lowest price but reasonable or appropriate with relevant quality guaranteed*
 - ii. **Discount promotion:** *Direct discounts for high volume/ quantity, promotions, seasons, geographical locations, etc.*
 - iii. **Transparency:** *Quoted with taxes and other charges/fees included, without bargain.*
 - iv. **Comparability:** *Publicized price quotation, comparable across brands, sizes, and colors of products among supermarkets and other channels*
 - v. *If anything else, please provide:*

4.3 Questions about Service-related factors

- 4.3.1 In your opinion, what **Service-related** factors can impact on customer benefits and customer retention for your company/ store? [Probes]:

- Besides the factors such as People, Premises, ICT System, Services, do you think whether there are/is any else? Rationale for the proposal?
- 4.3.2 For the **People factor**, do you think the indicators below contribute to customer benefits and enhance customer retention for your company/store? Please, provide anything else?
- i. **High competency:** *Well-educated, knowledgeable, professional, smart, and skilled.*
 - ii. **Positive interaction:** *Friendly, courtesy with an attitude of respect and empathy*
 - iii. **Positive working attitude:** *Enthusiastic, helpful or supportive*
 - iv. **Honesty:** *Reliable with business ethics and responsiveness to instil confidence in customers*
 - v. *If anything else, please provide:.....*
- 4.3.3. For the **Premises factor**, do you think the indicators below contribute to customer benefits and enhance customer retention for your company/store? Please, provide anything else?
- i. **Accessibility:** *Easy to access by walking, bicycles/ motorcycles, cars or public transport means*
 - ii. **Safety:** *Building standardized to ensure a hygiene, safe and security shopping environment.*
 - iii. **Comfortable shopping environment:** *Modern infrastructure, convenient equipment and facilities*
 - iv. **Entertainment ecosystem:** *Located in buildings with entertainment ecosystem in one place*
 - v. *If anything else, please provide:.....*
- 4.3.4. For the **ICT System factor**, do you think the indicators below contribute to customer benefits and enhance customer retention for your company/store? Please, provide anything else?
- i. **Online shopping:** *Online shopping for searching, ordering, and deliver anytime, anywhere (without having to go to the stores)*
 - ii. **Speedy shopping process:** *More effectively and efficiently, saving time for product searching and picking, accurate payment and quick delivery.*
 - iii. **Access to information:** *Easily access to search, check, or compare prices, receiving promotional information to encourage shopping.*
 - iv. **Flexible payment:** *Payment in cash, credit/debit card, store card, e-wallet, voucher, etc. is acceptable.*
 - v. **Constant interconnection:** *dual communication between customers and supermarkets can be implemented continuously and quickly through PC, phone, or mobile devices with email or chatbot.*
 - vi. *If anything else, please provide:.....*
- 4.3.5 For the **Customer Services factor**, do you think the indicators below contribute to customer benefits and enhance customer retention for your company/store? Please, provide anything else?

- i. **After-sales services:** Free after-sales services (e.g., delivery, warranties, free gift wrapping, etc.)
- ii. **Effective complaint handling:** Effective customer complaint handling process, easily to exchange/ return
- iii. **Commitment:** Available services (e.g., supportive services and exchange/ return/ cashback guarantee), provided right the first time as promised
- iv. **Personalization:** Provide personal assistance to customers who have special requests with individual attention or sincere interest.
- v. *If anything else, please provide:.....*

4.4 Questions about customer benefits when shopping in supermarkets

- i. Do you think a customer can gain benefits generated by store operations? If “yes”, what **benefits** can customer gain when shopping in supermarkets instead of wet markets, grocery stores or convenience stores? [Probes]: Besides Saving, Convenience, Instant gratification, Recognition, Enjoyment, Risk reduction, do you think whether there are/is any else? Reason for proposal?)
- ii. **Saving:** Save time (for traveling, picking, queuing for check-out, etc.), money (thanks to low price and discount) and effort to make a purchase when shopping at a supermarket or with its website/ application.
- iii. **Convenience:** Open hours, effectively purchasing process (instore and online), shopping environment, after-sales services at any time, quick exchange/ return guarantee at stores (even shopping online), etc.
- iv. **Instant gratification:** Instantly satisfied with purchasing decision (through staff interactions, shopping environment and facilities, quality products and services, reasonable price and payment method, etc.)
- v. **Recognition:** Gain recognition through personalized treatment, employees’ service style and empathy to understand their preferences and expectations
- vi. **Enjoyment:** Entertain and experience social activities, opportunities for customers to interact with employees or friends/relatives, or enjoy and reward shopping experience
- vii. **Risk reduction:** Risk reduced due to shopping safety, security, hygiene shopping environment, reliability product quality, guaranteed, and financial-risk-free
- viii. *If anything else, please provide:.....*

4.5 Questions about Psychological ownership

- 4.5.1 Do you know what psychosocial ownership is? Do you think that customer's psychological ownership can impact customer shopping behaviour (e.g., purchase intention, retention)? If so, in what way?
- 4.5.2 Do you think that customer's psychological ownership can impact the relationship between customer benefits and customer retention? If so, in what way?

- 4.5.3 In your opinion, what dimensions of PO do customers show when shopping in supermarkets?
- i. **Sense of store ownership:** *Feel that store or website is “mine/theirs”*
 - ii. **Sense of product ownership:** *Feel that the unpaid items displayed on shelves or quoted on website are “mine/theirs”.*
 - iii. **Familiarity:** *Strong sense of familiarity or connection with the supermarket or its website/ application*
 - iv. **Sense of closeness:** *Strong sense of closeness with this supermarket and/or its website/ application, want to stay with it for long time.*
 - v. *If anything else, please provide:.....*

4.6 Questions about Customer retention

- 4.6.1 Do you think that customer's customer retention is more important than customer satisfaction and loyalty? If so, in what way?
- 4.6.2 In your opinion, what dimensions of customer retention do customers show when shopping in supermarkets? [Probes]: Besides Shopping frequency, Feeling loyalty, Word-of-mouth, Recommendation, Involvement do you think whether there are/is any else? Rationale for the proposal?
- i. **Preference:** *Continue shopping as preference or first choice*
 - ii. **Frequency increasing:** *Increase the frequency of purchasing at a supermarket or on its website/ application.*
 - iii. **Feeling loyalty:** *Feel loyalty towards a supermarket, not switch to other retail channels despite price-sensitive or any problem experienced.*
 - iv. **Word-of-mouth:** *Willing to say positive things about a supermarket and benefits when shopping.*
 - v. **Recommendation:** *Willing to recommend their relatives, friends or colleagues to do shopping in supermarkets*
 - vi. **Involvement:** *Regularly give suggestions to improve the quality of products and services of supermarket(s).*
 - vii. *If anything else, please provide:.....*

Thank you for your kind cooperation and contribution to this interview.

Appendix 2: Survey questionnaire (for quantitative research)

INTRODUCTION AND ACKNOWLEDGEMENT

I am Diep T.N. Nguyen, Ph.D. candidate at Tomas Bata University in Zlin, the Czech Republic. I am conducting research entitled '*Customer Retention in Supermarkets: Evidence from Retail Market in Vietnam*', of which objective is to identify the operational factors, customer behaviour and perception of benefits when shopping in supermarkets that may enhance customer retention in this shopping channel. Your contributions and additional suggestions (if any) will help me not only enrich the practical experience about supermarket operations, but also develop reliable scholarly knowledge that can be widely shared for further research and educational purposes.

I hereby undertake that:

- The information you provide is confidential (answers will be deleted immediately after being transcribed and encoded)
- This research survey does not harm any person or organization.

Responding to this questionnaire will take approximately 5-7 minutes by selecting the available answers and adding your own opinion (if any) in the "Other" section.

Thank you very much for your participation.

Section 1: Respondent's background

Please provide your personal information by choosing one of the available answers.

1. Your Gender:

Male

Female

2. Your Age

25 or younger (Z)

41-55 (X)

26-40 (Y)

Older than 55 (Babyboom)

3. Your Education:

Postgraduate

High school

Tertiary/ College

Others

4. Your Occupation:

Student

Management/ Business Owner

Staff/ Worker/ Officer

Freelancer/ Housewife/ Retired

Professional/ Lecturer/ Teacher

Others

5. Your monthly net income is about:

< VND5 Mil.

VND15 Mil. → < VND25 Mil.

VND5 Mil. → < VND10 Mil.

VND25 Mil. or more

- VND10 Mil. → < VND15 Mil. No income

Section 2: Shopping habits and frequency in supermarkets

Please answer the questions relating to your habit and frequency of shopping in the supermarkets by choosing the available options. For several questions, you can choose more than one answer as remarked.

6. Which retail channel(s) is/are your preference to regularly shop essential goods? (*You can choose more than one*)

- Supermarkets (instore or online) Convenience stores
 E-platforms Wet markets
 Traditional grocery stores

If you do not do shopping in supermarkets (instore or online), you are not a target interviewee of this survey. Thank you for your participation.

7. How often do you do shopping (instore or online) in supermarkets?

- Less than once/ a month Three times/ a month
 Once/ a month Four times/ month
 Twice/ a month More than four times/ a month

If you do shopping in supermarkets (instore or online) less than once a month, you are not a target interviewee of this survey. Thank you for your participation.

8. Which categories of products do you usually purchase in supermarkets? (*You can choose more than one*)

- Ultra fresh-food and Fresh-food (Vegetable, Fruit, Fish, Meat), Frozen and Dairy products
 Dry food (Grocery and Confectionery), and Canned goods
 Wine and Beverages
 Chemical products and Tools for cleaning/ sanitation and other soft-goods
 Luxury, Cosmetics, and Functional products (for beauty and health care)
 Utensil, Household products for kitchen and Non-food-in-food products
 Fashion, Accessories, Sports and Textile products
 Decorations, Gardening, Electric products and Do-it-yourself (DIY)
 Electronics and High-technological products
 Others

Section 3: Factors attract customers to do and retain shopping in supermarkets

Please choose only one of the available answers to show your agreement or disagreement

A. Merchandise-related factors

A.1. Products

9. You do shopping in supermarkets because products are diverse, plenty of product categories such as Food, Non-Food, Textile, Household, Electrical/Electronic, etc.

- | | |
|--|---|
| <input type="checkbox"/> Strongly disagree | <input type="checkbox"/> Agree |
| <input type="checkbox"/> Disagree | <input type="checkbox"/> Strongly agree |
| <input type="checkbox"/> Neutral | |

10. You do shopping in supermarkets because products are offered as your desire with variety of brands, imported/ domestic/ regional specialties, specialty or ownbrand products.

- | | |
|--|---|
| <input type="checkbox"/> Strongly disagree | <input type="checkbox"/> Agree |
| <input type="checkbox"/> Disagree | <input type="checkbox"/> Strongly agree |
| <input type="checkbox"/> Neutral | |

11. You do shopping in supermarkets because quality of products is well controlled and guaranteed, i.e. quality, expiry date, specifications, and traceable origin of products can be checked by customers.

- | | |
|--|---|
| <input type="checkbox"/> Strongly disagree | <input type="checkbox"/> Agree |
| <input type="checkbox"/> Disagree | <input type="checkbox"/> Strongly agree |
| <input type="checkbox"/> Neutral | |

12. You do shopping in supermarkets because you can experience or sensuously assess the physical products by seeing, touching, tasting, smelling, trying, and testing before purchasing (whether instore or online).

- | | |
|--|---|
| <input type="checkbox"/> Strongly disagree | <input type="checkbox"/> Agree |
| <input type="checkbox"/> Disagree | <input type="checkbox"/> Strongly agree |
| <input type="checkbox"/> Neutral | |

A.2. Presentation

13. You do shopping in supermarkets because Products desired are always available (not out-of-stock)

- | | |
|--|---|
| <input type="checkbox"/> Strongly disagree | <input type="checkbox"/> Agree |
| <input type="checkbox"/> Disagree | <input type="checkbox"/> Strongly agree |
| <input type="checkbox"/> Neutral | |

14. You do shopping in supermarkets because Products are logically and reasonably displayed as store layout and standards according to product categories and specifications for customer to find and pick up the desired products easily.

- | | |
|--|---|
| <input type="checkbox"/> Strongly disagree | <input type="checkbox"/> Agree |
| <input type="checkbox"/> Disagree | <input type="checkbox"/> Strongly agree |
| <input type="checkbox"/> Neutral | |

15. You do shopping in supermarkets because products are well-presented at right location suitable for each type of products to ensure eye-catching with shelf signages.

- | | |
|--|---|
| <input type="checkbox"/> Strongly disagree | <input type="checkbox"/> Agree |
| <input type="checkbox"/> Disagree | <input type="checkbox"/> Strongly agree |
| <input type="checkbox"/> Neutral | |

16. You do shopping in supermarkets because products are displayed in large quantities, easy to buy in high volumes with many types, brands, sizes, forms of packaging, etc.

- | | |
|--|---|
| <input type="checkbox"/> Strongly disagree | <input type="checkbox"/> Agree |
| <input type="checkbox"/> Disagree | <input type="checkbox"/> Strongly agree |
| <input type="checkbox"/> Neutral | |

A.3. Price

17. You do shopping in supermarkets because product prices are reasonable or appropriate with relevant quality guaranteed as ‘you get what you pay for’, or ‘value for money’.

- | | |
|--|---|
| <input type="checkbox"/> Strongly disagree | <input type="checkbox"/> Agree |
| <input type="checkbox"/> Disagree | <input type="checkbox"/> Strongly agree |
| <input type="checkbox"/> Neutral | |

18. You do shopping in supermarkets because direct discounts or discount policies are regularly applied for by high volume/ quantity, promotions, seasons, geographical locations etc.

- | | |
|--|---|
| <input type="checkbox"/> Strongly disagree | <input type="checkbox"/> Agree |
| <input type="checkbox"/> Disagree | <input type="checkbox"/> Strongly agree |
| <input type="checkbox"/> Neutral | |

19. You do shopping in supermarkets because prices are transparently quoted with taxes and other charges/fees indicated, and fair, without bargain.

- | | |
|--|---|
| <input type="checkbox"/> Strongly disagree | <input type="checkbox"/> Agree |
| <input type="checkbox"/> Disagree | <input type="checkbox"/> Strongly agree |
| <input type="checkbox"/> Neutral | |

20. You do shopping in supermarkets because publicized price quotations and pricing information are comparable across brands, sizes, and colors of products among supermarkets and other channels.

- | | |
|--|---|
| <input type="checkbox"/> Strongly disagree | <input type="checkbox"/> Agree |
| <input type="checkbox"/> Disagree | <input type="checkbox"/> Strongly agree |
| <input type="checkbox"/> Neutral | |

B. Service-related factors

B1. People

21. You do shopping in supermarkets because employees are well-educated, knowledgeable, professional, and skilful

- | | |
|--|---|
| <input type="checkbox"/> Strongly disagree | <input type="checkbox"/> Agree |
| <input type="checkbox"/> Disagree | <input type="checkbox"/> Strongly agree |
| <input type="checkbox"/> Neutral | |

22. You do shopping in supermarkets because employees are always friendly with an attitude of respect and empathy when interacting with customers to meet the requirements of customers.

Strongly disagree

Agree

Disagree

Strongly agree

Neutral

23. You do shopping in supermarkets because 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 difficulties or problems.

Strongly disagree

Agree

Disagree

Strongly agree

Neutral

24. You do shopping in supermarkets because employees proactive and reliable with business ethics and responsiveness to instil confidence in the customers.

Strongly disagree

Agree

Disagree

Strongly agree

Neutral

B2. Premises

25. You do shopping in supermarkets because the stores are easily accessible (whether they are inside/outside or near/far from residential areas, in the center or in isolated areas) and reachable by walking, bicycles/ motorcycles, cars or public transport means.

Strongly disagree

Agree

Disagree

Strongly agree

Neutral

26. You do shopping in supermarkets because store format, design, layout and the interior are standardized to ensure a hygiene, safe and security shopping environment.

Strongly disagree

Agree

Disagree

Strongly agree

Neutral

27. You do shopping in supermarkets because stores has modern infrastructure, convenient equipment and facilities such as elevators/ escalators, lockers, parking place, designated areas for smokers, and utilities for disables, etc.

Strongly disagree

Agree

Disagree

Strongly agree

Neutral

28. You do shopping in supermarkets because the stores are located in buildings with facilities and infrastructure which form an entertainment ecosystem in one

place, such as food corner, cinema, entertainment and game areas, sports, health and beauty care services, bookstores, etc.

- | | |
|--|---|
| <input type="checkbox"/> Strongly disagree | <input type="checkbox"/> Agree |
| <input type="checkbox"/> Disagree | <input type="checkbox"/> Strongly agree |
| <input type="checkbox"/> Neutral | |

B.3. ICT systems

29. You do shopping in supermarkets because you can do online shopping, especially when affected by Covid-19 has helped customers find products, order and deliver anytime, anywhere without having to go to the supermarkets.

- | | |
|--|---|
| <input type="checkbox"/> Strongly disagree | <input type="checkbox"/> Agree |
| <input type="checkbox"/> Disagree | <input type="checkbox"/> Strongly agree |
| <input type="checkbox"/> Neutral | |

30. You do shopping in supermarkets because of speedy shopping process to save time for product searching and picking, accurate payment and quick delivery for customers.

- | | |
|--|---|
| <input type="checkbox"/> Strongly disagree | <input type="checkbox"/> Agree |
| <input type="checkbox"/> Disagree | <input type="checkbox"/> Strongly agree |
| <input type="checkbox"/> Neutral | |

31. You do shopping in supermarkets because you can access supermarkets' information easily with your PC or mobile devices for searching, checking or comparing prices, receiving promotional information to encourage shopping.

- | | |
|--|---|
| <input type="checkbox"/> Strongly disagree | <input type="checkbox"/> Agree |
| <input type="checkbox"/> Disagree | <input type="checkbox"/> Strongly agree |
| <input type="checkbox"/> Neutral | |

32. You do shopping in supermarkets because you can pay various alternative payment, e.g., in cash, credit/debit card, store card, e-wallet, voucher, etc.

- | | |
|--|---|
| <input type="checkbox"/> Strongly disagree | <input type="checkbox"/> Agree |
| <input type="checkbox"/> Disagree | <input type="checkbox"/> Strongly agree |
| <input type="checkbox"/> Neutral | |

33. You do shopping in supermarkets because dual communication between customers and supermarkets can be implemented continuously and quickly through PC, phone or mobile devices with email or Chatbot.

- | | |
|--|---|
| <input type="checkbox"/> Strongly disagree | <input type="checkbox"/> Agree |
| <input type="checkbox"/> Disagree | <input type="checkbox"/> Strongly agree |
| <input type="checkbox"/> Neutral | |

B.4. Customer services

34. You do shopping in supermarkets because you can get free after-sales services such as fast same-day delivery, warranties, free gift wrapping, and other additional services.

- | | |
|--|--------------------------------|
| <input type="checkbox"/> Strongly disagree | <input type="checkbox"/> Agree |
|--|--------------------------------|

Disagree

Strongly agree

Neutral

35. You do shopping in supermarkets because you are satisfied with the complaint handling process, which is designed and implemented effectively, easily to exchange/ return, and mainly focuses on customer benefits

Strongly disagree

Agree

Disagree

Strongly agree

Neutral

36. You do shopping in supermarkets because you are satisfied with the available services, e.g., supportive services and exchange/ return/ cashback guarantee, provided right the first time at all the time as promised.

Strongly disagree

Agree

Disagree

Strongly agree

Neutral

37. You do shopping in supermarkets because you are provided prompt personal assistance to customers who have special requests with individual attention or sincere interest in solving customers' problems.

Strongly disagree

Agree

Disagree

Strongly agree

Neutral

Section 4: Customer perception of benefits when shopping in supermarkets

Please choose only one of available answers to show your agreement or disagreement

38. You do shopping in supermarkets or through supermarkets' websites/ applications for the perceived saving such as time for traveling, picking, queuing for check-out, etc., money thanks to low price and discount and effort to make a purchase.

Strongly disagree

Agree

Disagree

Strongly agree

Neutral

39. You do shopping in supermarkets because you can benefit from store convenience: open hours, effectively purchasing process, shopping environment, after-sales services, exchange/ return guarantee, etc.

Strongly disagree

Agree

Disagree

Strongly agree

Neutral

40. You do shopping in supermarkets because you can be instantly satisfied with your purchasing decision (through staff interactions, shopping environment and facilities, quality products and services, reasonable price and payment method, etc.).

- | | |
|--|---|
| <input type="checkbox"/> Strongly disagree | <input type="checkbox"/> Agree |
| <input type="checkbox"/> Disagree | <input type="checkbox"/> Strongly agree |
| <input type="checkbox"/> Neutral | |

41. You do shopping in supermarkets because you can gain recognition through personalized treatment, employees' service style and empathy to understand your preferences and expectations.

- | | |
|--|---|
| <input type="checkbox"/> Strongly disagree | <input type="checkbox"/> Agree |
| <input type="checkbox"/> Disagree | <input type="checkbox"/> Strongly agree |
| <input type="checkbox"/> Neutral | |

42. You do shopping in supermarkets because you can entertain and experience social activities, opportunities to interact with employees or friends/relatives, or enjoy and reward shopping experience

- | | |
|--|---|
| <input type="checkbox"/> Strongly disagree | <input type="checkbox"/> Agree |
| <input type="checkbox"/> Disagree | <input type="checkbox"/> Strongly agree |
| <input type="checkbox"/> Neutral | |

43. You do shopping in supermarkets because you can reduce the risk of shopping due to safety, security, hygiene shopping environment, high level of reliability product quality, guaranteed services as commitment, and financial-risk-free.

- | | |
|--|---|
| <input type="checkbox"/> Strongly disagree | <input type="checkbox"/> Agree |
| <input type="checkbox"/> Disagree | <input type="checkbox"/> Strongly agree |
| <input type="checkbox"/> Neutral | |

Section 5: Psychological ownership when shopping in supermarkets

44. When doing shopping at a supermarket or through its shopping website/applications, you feel it is yours.

- | | |
|--|---|
| <input type="checkbox"/> Strongly disagree | <input type="checkbox"/> Agree |
| <input type="checkbox"/> Disagree | <input type="checkbox"/> Strongly agree |
| <input type="checkbox"/> Neutral | |

45. Although you have not purchased the product(s), you feel that the products displayed on shelves or quoted on website are yours.

- | | |
|--|---|
| <input type="checkbox"/> Strongly disagree | <input type="checkbox"/> Agree |
| <input type="checkbox"/> Disagree | <input type="checkbox"/> Strongly agree |
| <input type="checkbox"/> Neutral | |

46. You have a strong sense of familiarity or connection with the supermarket or its website/ application, so you can know its features, process, products and services.

- | | |
|--|---|
| <input type="checkbox"/> Strongly disagree | <input type="checkbox"/> Agree |
| <input type="checkbox"/> Disagree | <input type="checkbox"/> Strongly agree |
| <input type="checkbox"/> Neutral | |

47. You feel a strong sense of closeness with this supermarket and its website/application as it is for you, so you want to spend more time on it.

- | | |
|--|---|
| <input type="checkbox"/> Strongly disagree | <input type="checkbox"/> Agree |
| <input type="checkbox"/> Disagree | <input type="checkbox"/> Strongly agree |
| <input type="checkbox"/> Neutral | |

Section 6: Customer retention or repurchase intention

48. You continue to do shopping at supermarket(s) or their websites/application(s) as your preference or first choice

- | | |
|--|---|
| <input type="checkbox"/> Strongly disagree | <input type="checkbox"/> Agree |
| <input type="checkbox"/> Disagree | <input type="checkbox"/> Strongly agree |
| <input type="checkbox"/> Neutral | |

49. You increase the frequency of purchasing at supermarkets or on supermarkets' websites/ applications.

- | | |
|--|---|
| <input type="checkbox"/> Strongly disagree | <input type="checkbox"/> Agree |
| <input type="checkbox"/> Disagree | <input type="checkbox"/> Strongly agree |
| <input type="checkbox"/> Neutral | |

50. You feel loyalty towards the supermarket(s) and will not switch to other retail channels despite price-sensitive or any problem experienced when shopping at supermarkets

- | | |
|--|---|
| <input type="checkbox"/> Strongly disagree | <input type="checkbox"/> Agree |
| <input type="checkbox"/> Disagree | <input type="checkbox"/> Strongly agree |
| <input type="checkbox"/> Neutral | |

51. You are willing to say positive things about the supermarkets and their benefits

- | | |
|--|---|
| <input type="checkbox"/> Strongly disagree | <input type="checkbox"/> Agree |
| <input type="checkbox"/> Disagree | <input type="checkbox"/> Strongly agree |
| <input type="checkbox"/> Neutral | |

52. You are willing to recommend your relatives, friends or colleagues to do shopping in supermarkets or on supermarkets' websites/ applications

- | | |
|--|---|
| <input type="checkbox"/> Strongly disagree | <input type="checkbox"/> Agree |
| <input type="checkbox"/> Disagree | <input type="checkbox"/> Strongly agree |
| <input type="checkbox"/> Neutral | |

53. You regularly give suggestions to improve the quality of products and services of supermarket(s).

- | | |
|--|---|
| <input type="checkbox"/> Strongly disagree | <input type="checkbox"/> Agree |
| <input type="checkbox"/> Disagree | <input type="checkbox"/> Strongly agree |
| <input type="checkbox"/> Neutral | |

54. In addition to the above, if you have any other comments, please provide them by filling in the blanks below.

**ONCE AGAIN, THANK YOU VERY MUCH FOR YOUR
PARTICIPATION**

Notes: The questionnaire can be found at:

- Vietnamese version: <https://forms.gle/s9RLQQndqBTUQaCn8>
- English version: <https://forms.gle/CLaMwUL5UrYNaq9YA>

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5. **Nguyen, T. N. D.**, Hoang, S. D., Chovancová, M., and Tran, H. K. (2022). The influence of the Generation Z's perception and psychological ownership on repurchase intention of e-shopping: Evidence from Vietnam. *Journal of Eastern European and Central Asian Research*, 09(02), 240-259. <https://doi.org/10.15549/jeecar.9i2.792>
6. **Nguyen, T.N.D.**, Homolka, L., Hoang, D.S. and Nguyen, C. D. H. (2022). Employee Retention and the Moderating Role of Psychological Ownership in Retail. *Operations and Supply Chain Management: An International Journal*, 15(03), 316-330. <http://doi.org/10.31387/oscm0500349>
7. Hoang, D.S., **Nguyen, T.N.D.** and Pham, M. (2022). Factors Affecting Ecotourism Loyalty with the Moderating Role of Social Influence - Empirical Evidence in Vietnam. *GeoJournal of Tourism and Geosites*, 43(3), 850-860. DOI: 10.30892/gtg.43314-908
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9. **Nguyen, T. N. D.**, Pham, M., Hoang, D.S., and Chovancová, M. (n/d). How Service Operations, Perceived Benefits, and Psychological Ownership Enhance Customer Retention - An Evidence in Vietnam Supermarkets. *Cogent Business and Management* (Under review).

CURRICULUM VITAE

Nguyen Thi Ngoc Diep

Tel: +420-773638532/ +84-939979773

Email: t1nguyen@utb.cz or diepntn1309@icloud.com

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), teaching Operations management, Risk management, and Procurement Management.

The author has an MBA degree in Banking and Finance from Birmingham University (UK) and 15-year experience in banking and finance before becoming a senior manager in the four most prominent retailers in Vietnam.

The authors' research interests are Corporate finance, Business administration, Service operations management, and Enterprise risk management, especially in the retail sector.

Academic background

- Ph.D. candidate in Management, Tomas Bata University in Zlin, Czech Republic (Oct. 2017 – Ongoing, one-year gap)
- MBA – International Banking and Finance, University of Birmingham, United Kingdom (2004–2006)
- BSc – Financial Economics, Economics University of Ho Chi Minh City, Vietnam (1990–1994)

Professional background

- Lecturer in Business Administration, Open University of Ho Chi Minh City, Vietnam (Dec2020 – present). Teaching subjects: Operations Management.
- Senior Manager in Life-insurance: Operational risk management, and Project leader (AIA – Life insurance Company, Vietnam)
- Senior Manager in Retail industry: Head of Internal Audit, Head of B2B sales (Vincommerce, Vietnam); Director of Internal Audit and Compliance (Lotte Mart, Korea); Head of Customer Service and Quality Assurance (Aeon, Japan); Customer Service and Back Office Manager (Metro Cash and Carry, German)
- Manager in Banking and Nonlife-insurance: Customer Service Manager, Foreign Exchange and International Settlement Manager (Bank for Investment and Development of Vietnam, Angiang branch); Financial Manager (BIC – Insurance company of Bank for Investment and Development of Vietnam, Ho Chi Minh city branch)

Nguyen Thi Ngoc Diep

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