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VALUE FORMATION AND SERVICE SWITCHING BEHAVIOUR IN FINNISH RETAIL SERVICE SYSTEMS

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ABSTRACT

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This thesis examines the service switching behaviour and factors that influence the value formation processes in Finnish retail service systems concerning traditional service channels and the service channels facilitated with digital competences as omnichannel retail service environments. This research aims to reflect the ubiquitous modern service environments the users interact with daily, and how they perceive and process the resulting service-use experiences. This thesis also aims to supplement the rather limited prior research concerning service switching behaviour across service channels and service systems and examine how value formation is affected by different factors during service switching behaviour for the users. This thesis commences by reviewing prior literature concerning services and different service channels which are reflected to the context of Finnish retail, value formation processes, service switching behaviour, and how central frameworks of value formation and service switching behaviour can be reflected against each other. After the review of literature, the research methodology is presented to address the research objectives. The qualitative research is conducted with the critical incident technique that is applied to semi-structured online questionnaire, which is analysed with content analysis (n=59). The central results explore how the critical incidents had caused the users to switch services, and how the push, pull, and emerging mooring factors had affected service switching behaviours by facilitating value co-destruction, co-creation, and service experience moderation respectively.

Keywords: service switching behaviour, value formation, service-use experience, digital service system, retail service environment

TIIVISTELMÄ

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Arvon muodostuminen ja vaihtokäyttäytyminen suomalaisissa kuluttajapalvelujärjestelmissä
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Tämä tutkielma tarkastelee palveluiden vaihtokäyttäytymistä ja tekijöitä, jotka vaikuttavat arvon muodostumisen prosesseihin suomalaisissa kuluttajapalvelujärjestelmissä koskien perinteisiä palvelukanavia sekä digitaalisten kompetenssien tukemia monikanavaisia kuluttajapalveluiden palveluympäristöjä. Tässä tutkimuksessa pyritään kuvaamaan käyttäjien vuorovaikutusta nykyiseen arkeen levittäytyneiden palveluympäristöjen kanssa sekä miten käyttäjät tulkitsevat ja käsittävät näistä syntyviä palvelunkäytön kokemuksia. Tämä tutkielma pyrkii myös täydentämään melko rajoittunutta aiempaa tutkimusta koskien palveluiden vaihtokäyttäytymistä eri palvelukanavilla ja -järjestelmillä sekä tarkastelemaan miten erilaiset palvelun vaihtokäyttäytymisen tekijät vaikuttavat käyttäjien arvon muodostumiseen. Tutkielma alkaa aiemman kirjallisuuden katsauksella koskien palveluita ja palvelukanavia, jotka heijastetaan suomalaisen kuluttajapalvelun kontekstiin sekä arvon muodostumisen prosesseja, palveluiden vaihtokäyttäytymistä, ja miten arvon muodostumisen sekä palvelun vaihtokäyttäytymisen viitekehyksiä voidaan heijastaa toisiinsa. Kirjallisuuskatsauksen jälkeen esitetään tutkimustavoitteiden tavoitteluun käytetty tutkimusmenetelmä. Laadullinen tutkimus on toteutettu merkittävien tapahtumien menettelyä (engl. critical incident technique), jota sovelletaan puolistrukturoituun verkkokyselyyn, joka analysoidaan sisällönanalyysilla (n = 59). Keskeiset tutkimustulokset selvittävät, miten merkittävät tapahtumat saivat käyttäjät vaihtamaan palveluita sekä miten työntävät, vetävät ja esiin nousevat ankkuroivat tekijät vaikuttivat palveluiden vaihtokäyttäytymiseen vaikuttamalla vastaavasti arvon yhteistuhoamiseen, yhteisluomiseen sekä palvelukokemuksen moderointiin.

Asiasanat: palvelun vaihtokäyttäytyminen, arvon muodostuminen, palvelun käyttökokemus, digitaalinen palvelujärjestelmä, kuluttajapalveluympäristö

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1 INTRODUCTION

Service switching behaviour can have significant consequences not only for the service providers, but for users as well. Service switching behaviours of the users has been a topic of interest for researchers for a long time, evolving from research focusing on human migration after Lee (1966, pp. 50) to marketing and service research. Bansal, Taylor, and St. James (2005, pp. 101) have presented an overarching framework for examining the pushing, pulling, and mooring factors influencing service switching intentions preceding the service switching behaviour. This push-pull-moor (PPM) framework provides a valuable tool for approaching the complex research topic that focuses on human behaviour. As modern service environments provide many alternative services where the users can switch to, understanding the service switching behaviours of the users is important for service providers for user acquisition and retention (Nykänen, 2014), and to facilitate sustainable interaction opportunities through the service channels they provide (Li, Liu, Lim, Goh, Yang & Lee, 2018). Service switching behaviour remains as a topic of interest in information systems and service research as services have developed into the pervasive digital services that influence the everyday activities for the users for researchers (Hsieh, Hsieh, Chiu & Feng, 2012).

In order to create optimal value and maintain competitiveness, services have become a central part within the operations of companies and operational networks, defined as service providers, across diverse industries, including commercial services (Tuunanen, Kazan, Salo, Leskelä & Gupta, 2019a). The concept of service has remained topical in the modern times despite the continuously changing economic and technological landscapes, where the service logic has also changed from centring tangible goods as goods-dominant logic (GDL) to concern intangible service competences offered through networked service systems as service-dominant logic (SDL) (Vargo & Lush, 2004).

The concept of user has also transformed through SDL from a recipient who exchanges money for the goods and services, to a central service system participant who realizes the value of the service through its use (Lusch & Nambisan, 2015). The users have become value co-creators in service-oriented economies with various service systems where the users combine their value drivers to the

service value propositions (Tuunanen, Myers & Cassab, 2010). The interaction between the users and service providers is crucial for value formation, as the users determine and realize the value of the service proposed by service providers through its use in their own contexts and processes that the service providers cannot access without cooperative interaction (Grönroos & Voima, 2013). The concept of value formation has been typically labelled as co-creative in research, where the users and service providers benefit from service-use experiences within service systems (Vargo & Lush, 2004).

The service systems represent the different arrangements of service users and providers, technologies, and value propositions offered by service providers (Maglio & Spohrer, 2008). In these service systems the service providers can provide both physical goods and digital services by utilizing different service channels from physical service locations to digital online and mobile services (Persaud & Azhar, 2012). As service technologies have further developed, the digital competences have been applied to physical goods and service facilities to maintain continuous interaction with the users as cyber-physical service systems (Beverungen, Müller, Matzner, Mendling, & Vom Brocke, 2017). The service systems that combine capabilities of multiple service channels to interact with users are defined as omnichannel service environments, where the users can maintain their interaction with service providers with different service channels (Li, Liu, Lim, Goh, Yang & Lee, 2018). The digital services that are provided through omnichannel service environments can be examined as a practical field through retail, where the service providers can offer physical service locations through stores, online stores, mobile applications, and cyber-physical services that utilize the digital competences to interact with users, which is used in this thesis to examine the Finnish omnichannel retail environments.

However, as the interaction between users and service providers can facilitate value co-creation, value can also be diminished through co-destruction (Echeverri & Skålén, 2011). Value co-destruction can be accidental or intentional, where one service participant tries to benefit from the service and interaction at the cost of other service participants (Plé & Chumpitaz Cáceres, 2010). Understanding how value is formed between users and service providers in modern digital services that are prevalent in increasingly omnichannel service environments is crucial for service systems and their participants. This understanding can help the service systems to manage value formation processes to be mutually beneficial and mitigate co-destructive processes (Plé, 2017).

Although prior information systems and service research have examined service switching processes and behaviours of the users in service systems, the research is rather limited where the switching processes concern switching within one service channel, such as switching from one online store to another. As the service systems become more ubiquitous and digital services develop new competences that can change user experiences, the research examining how value formation processes are affected during service switching behaviours in omnichannel service environments in retail context is warranted.

1.1 Thesis goals

The research objective of this thesis is to inspect service switching behaviours of the Finnish users in omnichannel retail service environments where they switch from traditional retail service channels to alternative digital and mobile retail service channels by inspecting the significant, memorable experiences that have caused them to switch as critical incidents. This thesis also examines how their service switching behaviours were affected by push and pull factors influencing their service switching experiences, reflecting value co-creation and co-destruction experiences during service switching incidents. The research objectives are examined through three questions, where the first question serves as the primary research question, which is supplemented with two questions:

- What critical incidents have users experienced during retail service use that have caused them to switch retail services from traditional service to alternative digital and mobile retail service channels?
- What pushes users to switch from traditional retail service channels during critical incidents?
- What pulls users to switch to alternative digital and mobile retail service channels during critical incidents?

The research is conducted with a review of literature and empirical research utilizing qualitative research with the critical incident technique to examine the user narratives to form coherent understanding of how users themselves experienced their service switching behaviours in their own words. The data collection is executed through semi-structured online questionnaire using Webropol 3.0 online survey tool. The selected responses (n=59) are analysed using content analysis, resulting in four major themes, 22 categories, 72 subcategories, and 502 codes. Although the researcher had expected to discover three major themes for critical incidents and the push and pull factors, the fourth theme was formed through emerging mooring factors contained within the reports, providing more insight to the service switching experiences.

1.2 Thesis outline

This thesis is constructed with nine chapters. The first chapter of this thesis presents this introduction to the central theoretical concepts, motivation for conducting the research, research objectives, methodology, and brief descriptions of the results.

The review of literature is mainly formed with four chapters. The second chapter of this thesis presents the concept of digital services and how service is defined with the traditional, digital, mobile, and cyber-physical service channels. The second chapter also presents how the service systems as omnichannel

services can be examined as retail services and in Finnish retail service systems. The third chapter examines the concept of value formation and presents a framework concerning how joint interaction processes affect it. The third chapter also examines the co-creation and co-destruction of value with a framework examining user value drivers and service value propositions. The fourth chapter defines the concept of service switching behaviour and its evolution in scientific research. The fourth chapter also presents the PPM framework. The fifth chapter summarizes how value formation and service switching behaviour can be inspected in conjunction with the support of the findings made through the review of literature. This chapter also reflects the value formation processes through user value drivers and service value propositions to the push, pull, and mooring factors

The sixth chapter concerns the qualitative research methodology employed in this thesis by stating the research objectives and research questions. This chapter presents the critical incident technique used in the research and its background, along with the benefits and challenges of the chosen methodology. This chapter also narrates the collection of data through online questionnaire and analysis process with content analysis.

The seventh chapter presents the results of the research by dividing the chapter to four subsections in accordance with the four major themes reflecting the critical incidents, push factors, pull factors, and emerging mooring factors. Each theme also presents the categories and subcategories that contain descriptions for them using the analysed codes.

The eight chapter concerns the discussion, reiterating the research objectives, literature and its gaps, and results. This chapter also reviews the research process and utilized methodology. The eight chapter also presents implications for theory and the central theoretical frameworks and implications for practice, presenting considerations how the results and their implications could be applied in practice.

The ninth chapter presents the conclusions for this thesis, summarizing the overarching structure and conclusions of the theoretical and scientific implications. This chapter also acknowledges the limitations of this thesis and the generalization of the results. Finally, this chapter presents topics for future research.

2 DIGITAL SERVICES

This chapter introduces the basic concept of service following the principles of service-dominant logic, which has become a prevalent concept as organizations and economies have become more service-oriented. To understand how modern services may affect the users and their value formation processes, it is necessary to understand how the concept of service has changed as service channels have developed from traditional to digital, mobile, and cyber-physical services, and how these concepts can be exemplified in practice through Finnish retail service environment.

2.1 Defining service

Services have become increasingly complex and interconnected as they become more pervasive in the everyday contexts of the users for various purposes in the consumer markets ranging from social networking, healthcare, and retail (Tuunanen et al., 2010; Verhoef et al., 2017). In services, value formation has been recognized as the core basis for economic exchange for organizations, where value is no longer defined solely through the output of the firm and the monetary exchange for service consumption (Vargo, Maglio & Akaka, 2008). Thus, offering services that meet the expectations and the needs of the unique users have become integral for value formation processes and attaining competitive advantage (Boakye, 2015). Williams, Chatterjee, and Rossi (2008, pp. 505) have observed the shift in the economic landscape from products to services, resulting from the increased prevalence of digital technologies even in the consumer use.

Vargo and Lusch (2004, pp. 2) define the basic concept of service, stemming from marketing research, as processes that implement knowledge, skills and other specialized capabilities and resources to benefit "entities", which can consist of people, systems, or institutions. Vargo et al. (2008, pp. 146) further emphasize the importance of value, which is tied to benefitting the service entities, users and providers, and its joint process of co-creation within service systems. Maglio

and Spohrer (2008, pp. 19) define these service systems as varied arrangements of service participants, including users and service providers, service technologies, and value propositions, where value is jointly and cooperatively formed.

In the traditional view, value was tied to its exchange, such as currency, through goods and other tangible, operand, resources, where the user was a passive consumer of the service offerings (Vargo & Lusch, 2004). This goods-dominant logic (GDL) perspective has developed towards service-dominant logic (SDL). SDL incorporates the networked service systems (Lusch & Nambisan, 2015) where the value formation centres active cooperative processes through intangible, operant, resources such as knowledge and skills (Vargo & Lusch, 2004). In SDL the tangible, operand resources can also be utilized in service provision through tangible resources and goods (Vargo et al., 2008).

According to SDL, service providers aim to tailor the services to benefit the users and other service system participants to meet their expectations and needs by involving users as active value co-creators through resource integration. By involving users in value formation processes as co-creators, the service providers can integrate their resources with the operant resources of the users, such as their knowledge and skills, to produce desired effects in service provision to meet the unique expectations and needs of the users. (Vargo & Lusch, 2004.) In SDL value is no longer solely tied to the value-in-exchange concept, where the service offerings are attached to value, such as price. Instead, value is realized only when the service participants, such as users, become better off when using the service. Thus, the concept of value-in-use is integral in value formation processes in SDL. (Lusch & Nambisan, 2015.)

After Vargo and Lusch (2004, pp. 2) first introduced the SDL in marketing research, its concept has been integrated with various other re-search disciplines globally, defining the SDL in further detail in different service contexts, which has been noted by Vargo and Lusch (2016). Due to this multidisciplinary research integration over time, Vargo and Lusch (2016, pp. 6) have further elaborated SDL through five axioms, updating and highlighting the premises of SDL that were first introduced twelve years prior. These five axioms, as presented in Table 1, "Five axioms of SDL (after Vargo and Lusch, 2016, pp. 18)" aim to further improve the applicability of SDL in any service exchange context in the modern service environments. These axioms state that the core basis of exchange is service (Axiom 1), value is co-created by multiple service actors and always with service beneficiary, for example the user (Axiom 2), all social and economic actors are resource integrators (Axiom 3), the service beneficiary assesses the value uniquely within the phenomenological service experience (Axiom 4), and value co-creation is coordinated and arranged within actor-generated institutions (Axiom 5) (Vargo & Lusch, 2016). These five axioms are described in further detail after the presentation of Table 1.

TABLE 1 Five axioms of SDL (after Vargo and Lusch, 2016, pp. 16)

Axiom	Description
Axiom 1	The core basis of exchange is service.
Axiom 2	Value is co-created by multiple service actors and always with the service beneficiary.
Axiom 3	All social and economic actors are resource integrators.
Axiom 4	The service beneficiary assesses the value uniquely within the phenomenological service experience.
Axiom 5	Value co-creation is coordinated and arranged within actor-generated institutions.

The first axiom, "The core basis of exchange is service" (Axiom 1), concerns that services can facilitate value creation through the exchanges of services, applications of specialized operant resources and capabilities, among service participants within service systems (Vargo & Lusch, 2016, pp. 17). These cooperative service exchange relationships interact with each other and integrate their resources and services through this interactive process, aiming to facilitate value formation through useful service experiences (Vargo et al., 2008).

The second axiom "Value is co-created by multiple service actors and always with the service beneficiary" (Axiom 2) highlights a major difference between SDL and GDL where the service beneficiary, such as the user, is seen as a passive consumer of the services. In SDL, user is seen as an active service participant who jointly co-creates value with the service system with other actors that participate in service provision and value formation. Without the active service beneficiary, the user, value cannot be realized, as it would not be experience through the use of the service. (Vargo & Lusch, 2016, pp. 6.)

The third axiom "All social and economic actors are resource integrators" (Axiom 3), reflects the interconnected processes within service systems described in the previous axioms (Axiom 1 and Axiom 2), where service participants jointly integrate their resources through interaction (Vargo & Lusch, 2016, pp. 9. Vargo and Lusch (2016, pp. 18-19) further emphasize that all service participants cooperate essentially in similar ways by integrating their resources and participating in service ex-change processes to co-create value.

The fourth axiom "The service beneficiary assesses the value uniquely within the phenomenological service experience" (Axiom 4) also reflects Axiom 2 where the user, service beneficiary, is crucial for realizing the value of the service within the unique and context-dependent service experiences. During these service experiences, the user determines the value of the service as value-in-use based on its perceived and experienced usefulness. (Vargo & Lusch, 2016, pp. 6.) Grönroos and Voima (2013, pp. 144) also state that only the user can derive the value of the service through its use. Consequently, value cannot be determined without the user or their service experience (Grönroos & Voima, 2013).

The final, fifth axiom "Value co-creation is coordinated and arranged within actor-generated institutions" (Axiom 5) expresses the contextual environment where value co-creation occurs through interactive resource integration (Vargo & Lusch, 2016, pp. 18). Vargo and Lusch (2016, pp. 6) define "actor-generated

institutions" as interconnected and individual rules and norms that are integrated in the value co-creation processes within each service system. According to Lusch and Nambisan (2015, pp. 161-163) these institutions can facilitate interaction between different service participants who may possess different worldviews and mental processes and could otherwise encounter hampered interactions without these coordinated norms and rules created by the service participants.

With these five axioms, Vargo and Lusch (2016, pp. 18) have determined that the SDL is applicable in all value creation processes. Lusch and Nambisan (2015, pp. 160) have also observed that SDL can be utilized as a lens for researchers to observe services and the behaviour of service actors in value formation processes through resource integration. SDL gives a perspective to understand the value formation process in the service system, which also incorporates the experiences of the users who realize the value of the service (Grönroos, 2011).

This is crucial for modern service providers within the increasingly interactive and ubiquitously connected world where the users demand optimal service experiences and personalized value not only in traditional service contexts, but also in digital, mobile, and cyber-physical service encounters in numerous industries. Tuunanen et al. (2019a, pp. 2) have summarized that the conceptual development in services has evolved from traditional services to digital and mobile-assisted services, and even to cyber-physical services, which will be contemplated in the following subsection.

2.2 Traditional, digital, and cyber-physical service

The increased ubiquity of digital services in our everyday lives, which can provide a constant connection to the service providers, has also changed services themselves. According to Maglio and Spohrer (2008, pp. 18) services have transformed from the traditional conceptualization of service, which often centred around the close human contact where the service providers offered the services for the consumption of the customers, to include interconnected and complex service systems that utilize digital capabilities. As service technologies have developed, and as economies have progressed towards SDL, the service providers have become increasingly dependent of the customer participation to meet their unique expectations and needs (Maglio & Spohrer, 2008). The users have become more integrated in the service production and interaction processes, becoming value co-creators, to ensure that the optimal service experiences can be attained within service-oriented economies (Tuunanen et al., 2010).

As economies have become more service-oriented, and thus dependent of the integrated operant resources from the customers as well (Barile & Polese, 2010), service providers across industries have adopted new ways to create value jointly with other service participants of the service systems, utilizing novel service technologies to improve service experiences (Matzner et al., 2018). Traditional service encounters, as described by Gremler, Bitner, and Evans (1994, pp.

35) consist of the interactions that commonly occur on-location, such as stores, between the customers and employees who represent the service provider, which can greatly affect the service experiences of the users. However, after these traditional service encounters have occurred, where the customer has exchanged the service offering for currency for example, the interactive processes end and the service provider cannot partake in further value formation processes through interaction with the customer, creating less than optimal value (Grönroos, 2011).

As digital technologies became more readily available and continuously connected to the Internet, the service providers have been able to utilize the digital infrastructures that the customers have adopted in their everyday use (Williams et al., 2008). By offering digital service offerings and digitally trans-forming their service processes through digitalization, incumbent service providers can improve their interactive processes within service systems, including the users, to facilitate beneficial value formation. By digitally transforming their service offerings, service providers are able to mobilize their resources with more precision and effectiveness to improve the interactive processes and service experiences of the user. (Matzner et al., 2018.)

Williams et al. (2008, pp. 506) have defined digital services as services where the interactive service exchange and value formation processes are de-pendent on digital technologies, such as computers and mobile devises including phones and tablets, which connect through Internet Protocol (IP). However, Williams et al. (2008, pp. 506) also note that the service interactions between service system participants are not limited to digital services. Instead, service providers can offer both digital and traditional service channels together to facilitate more useful and convenient service experiences, for example a store may offer a traditional physical location and online stores where the users may browse and order goods, and also check for the availability information for example (Persaud & Azhar, 2012).

As digital technologies have developed further and become more universally available in consumer usage offering ubiquitous connectivity to online services, services have developed as well. A notable development in digital services is the prevalence of mobile devices that have become the predominant channel of interaction between service providers and users, since mobile devices, primarily phones, have become central in their everyday lives (Persaud & Azhar, 2012). This is concordant with the results form a survey conducted by Official Statistics of Finland (OSF) (2019), where they examined the use of Internet on different devices of the Finnish citizens (n=5900). The results show that in 2019, 80% of this representative Finnish population (ages 16-89) had utilized mobile phones to access the Internet, while laptop computers were used by 66%, desktop computers by 36%, and tablet devices by 44% of the Finnish population within the previous three months when the survey was conducted. Additionally, the same survey presents that 83% of the Finnish population had used the Internet daily or almost daily in 2019. (OSF, 2019.) These results demonstrate the prevalence of mobile phones and ubiquitous connectivity to the Internet in the Finnish population in their everyday lives.

The extensive availability of mobile devices presents service providers many opportunities to facilitate value co-creation through a variety of service applications, apps, which present an accessible channel for interaction within the service system, even between the users and service providers (Persaud & Azhar, 2012). Users are able to interact with service providers and other users, express themselves through comments and rating systems, and personalize their own service experiences for example in retailing applications by creating wish lists (Newman, Wachter & White, 2018). These mobile channels can also be offered alongside the traditional and other digital services, such as online stores, and can this way even facilitate interaction with the user between different service channels, for example providing special offers through applications that can be utilized in online stores or physical store locations (Lemon & Verhoef, 2016).

In traditional, non-digital services, the interaction between the service provider and the user was often limited to only one user at a time as an employee interacted with them on the location, which would often result in shallow interaction. With digital, and especially mobile services, the interactive processes are no longer tied to the number of available service personnel and can take place anywhere the user utilizes the digital devices. (Park, 2014.) Technological service development has consequently increased the complexities of the service experiences of the users which are critical for value formation, as users are able to interact with the service providers through digital services online and through service applications on mobile devices (Lemon & Verhoef, 2016, pp. 69), connecting users in extensive service systems and service networks (Verhoef et al., 2017).

However, technological service development is still ongoing, creating new forms of pervasive connectivity and facilitating new interaction opportunities for users and service providers. Recently, physical service offerings are becoming interconnected with other service offerings and service systems through digital capabilities, which are facilitated by embedding Information Communication Technology (ICT) into physical service offerings, transforming them into smart services (Beverungen et al., 2017). According to Peters et al. (2016, pp. 136), combining physical service offerings with ICT expands information systems and service research beyond digital and mobile services to also encompass cyber-physical services.

These cyber-physical services, capable of providing real-time data-analyses from their environment through their embedded hardware and soft-ware (Peters et al., 2016, pp. 139) present innovative opportunities to facilitate interaction and value co-creation in cyber-physical service systems through pervasive connectivity with the physical, smart services (Baheti & Gill, 2011). These cyber-physical services can utilize their computational capabilities, such as sensors and cameras, to become aware of their environments and the processes of the users by aggregating and exchanging contextual data with other cyber-physical services. Cyber-physical services can also interact with service systems through their connective digital capabilities, functioning as boundary interfaces between service participants and their resource integration processes. Based on the contextual data, service system participants, such as service providers, are able to adjust cyber-

physical service processes to personalize service experiences and value propositions for the users. (Beverungen et al., 2017.)

However, as noted earlier with traditional and digital service channels providing complementary services, cyber-physical services can also enhance service experiences of the users congruently with traditional and digital services. Verhoef et al. (2017, pp. 14) note that the connectivity among traditional, digital, and cyber-physical services facilitates interaction processes between service providers and users in more ubiquitous ways as mobile applications are leveraged to enhance cyber-physical services through Application Protocol Interfaces (API). API enable connectivity between the mobile device applications and the cyber-physical services through a standardized interfaces that are in-dependent of platforms (Verhoef et al., 2017, pp. 14), so that Apple and Android devices can both interact with same cyber-physical service through their cyber-physical applications, for example (White et al., 2010). This enables service providers to continuously interact with the users as well by connecting to their service processes through cyber-physical services and applications (Beverungen et al., 2017).

These networked cyber-physical services, which are able to infuse con-textual data and ubiquitous interaction among service system participants, present service providers and users innovative interaction opportunities to optimize value formation. By combining the physical service capabilities with computational competences, the physical service capabilities can interact with users and mobile service applications, facilitating value formation in many new ways with computation, communication and control enabled by the cyber-physical service systems (Baheti & Gill, 2011).

As a practical example, Finnish retail conglomerate Kesko Corporation had partnered with Smartcart, a Finnish technology company that faced bankruptcy in April 2020, offered their customers more convenient shopping experiences in their stores through cyber-physical services with traditional shopping carts that were infused with an embedded tablet device, representing service interface the customers could use to access cyber-physical services the store provides, such as store-specific special offers and navigation services to locate goods in each individual store (Smartcart, 2020). Another practical example of cyber-physical services offered in Finnish retail environments is the handheld barcode scanner provided by S Group in their market chain, Prisma. The users can pick up the scanner and scan the goods they grab, creating a virtual shopping list that aggregates the prices. Once the user is done, they connect the scanner with a self-checkout station, which prints a single receipt with a barcode containing the total price data, which is used to pay for the shopping at the self-checkout station as usual. This way the users can conduct their shopping in more convenient, streamlined manner as they can place the goods into the bag already in the store, eliminating the process of unloading the shopping carts at the checkout and placing them in bags, as they are already scanned when they are placed into the bag. (S-ryhmä, 2019.) The three conceptualizations of service, consisting of traditional, digital, and cyber-physical services, are summarized in Table 2, as presented below.

TABLE 2 Defining traditional, digital, and cyber-physical services

Service channel	Description	Examples
Traditional service	Services that are provided through tangible resources, such as physical locations.	Physical stores.
Digital service: Online and mobile service	Digitally enabled intangible service enhancing service mobility.	Online stores. Service applications on mobile devices.
Cyber-physical service	Physical service offerings enhanced with hardware and software enabling digital connectivity.	Smart shopping carts. Handheld barcode scanners.

Users are now increasingly connected to the service providers and to many forms of services ranging from physical offerings, digital and mobile application, and cyber-physical service systems in various ways through ubiquitous interactive information systems that are present in our everyday lives (Verhoef et al., 2017). This presents challenges to create optimal service experiences, but also opportunities for service providers to interact with users and influence their practices in service experiences, influencing value co-creation (Grönroos, 2011, pp. 289), and accumulate knowledge and skills of the users to the service provision processes, such as design and production, to improve the competitive advantages of the service providers (Vargo et al., 2008).

In Finland, one of the most notable economic areas utilizing these three service concepts described in Table 2 to provide customers accessible omnichannel service experiences can be found in retail. In this context, according to Li et al. (2018, pp. 53), the retailers can utilize their various service offerings to provide efficient, user-centred service, as is further described in the following subsection.

2.3 Digital services in retail

Technological service development enabling pervasive connectivity of the services and users through the Internet connectivity and mobile technologies has enabled traditional services to become digital. Services are no longer solely bound to physical goods and locations, such as stores as seen as an example on Table 2, which is the case in traditional services (Newman et al., 2018). However, by using digital competences, traditional service offerings that are bound to physical resources can be transformed through digitalization into digital, intangible services and service systems that can be mobilized further with mobile technology (Lusch & Nambisan, 2015). As digital service systems have advanced, new interaction opportunities to co-create value arise to meet the expectations of the users by combining service offerings with ICT to maintain pervasive digital connectivity, thus offering continuous interactivity for value co-creation (Barile & Polese, 2010).

Besides smart shopping carts and handheld barcode scanners, which were presented as an example in Table 2 for cyber-physical services, entire physical stores can utilize cyber-physical service processes and replace the interactive contact between customers and employees to minimum by replacing major personnel and self-service processes with cyber-physical service capabilities. Amazon.com Incorporated, most well-known for the digital services consisting of e-commerce and digital streaming for example, has begun to utilize physical brick-and-mortar stores to provide cyber-physical grocery shopping services through Amazon Go stores in the United States, where the first location opened in Seattle in 2017 (Polacco & Backes, 2018).

Amazon Go stores provide a physical location to purchase physical goods, but do not have cashiers or even self-checkout stations to scan each purchase as self-service. Instead, the customers simply pick out the goods they want which are automatically charged from their credit cards as they leave the store. (Kim, 2020.) To shop at the store, the customers need to have the Amazon Go mobile application that generates a Quick Response (QR) code, which is scanned at the entrance (Polacco & Backes, 2018). As the customers move around the store and pick out goods, their processes are tracked throughout the store with sensory technologies and computing capabilities as their chosen goods are added to or removed from their virtual cart. As they leave the store, their shopping is charged from the credit card associated with the application account on exit, providing a virtual receipt for the customers through the application. By offering cyber-physical service experiences, the customers can save time, as they do not have to wait in line to have every item they have picked scanned, creating more convenient shopping experiences. (Kim, 2020.) Also, as the mobile application keeps track of their service activities within the store, Amazon can aggregate and analyse real-time data of their customers and their service processes to personalize their interaction and service offerings for each customer (Fulgoni, 2018).

2.3.1 Digital services in Finnish retail

In Finland, digital consumer services in retail also provide a practical example how service providers have enhanced their service experiences to improve value formation by adopting digital, mobile, and cyber-physical service channels to interact with their customers. For example, in Finnish retail services Kesko Corporation and S Group have introduced cyber-physical services to provide cyber-physical services in addition to their traditional, digital, and mobile services for their customers to facilitate more convenient and unique service experiences and interactive processes to advance value formation.

Besides offering physical stores, both Kesko Corporation and S Group provide mobile service applications to enhance customer interaction and service experience. The mobile application of S Group, “S-mobiili”, provides its users within the loyalty program personalized service offers and virtual receipts of their previous transactions with S Group, enabling the users to track their own service activities, while also facilitating interaction by offering opportunities to leave feedback to S Group and providing information of their store locations and

business hours. To access the application, the users need to be registered as customer owners to verify the user identification for service processes. S-mobiili also provides financing services with S-Pankki banking service through the mobile application, providing a convenient platform for users to access their personal financial information and for example pay bills through the application. (S-kanava, 2020.)

The mobile application of Kesko Corporation, "K-Ruoka" also requires that the users possess loyalty program identification to verify their access to the personalized services. K-Ruoka offers its users personalized offers, virtual receipts, and information of store locations and business hours. However, unlike S-mobiili, which also provides S-Pankki financing service through the application, K-Ruoka application concentrates on offering more retail-centred services. With K-Ruoka, the users can also create their own shopping lists, access recipes, and also online grocery store where the users can buy groceries to be delivered. (Kesko, 2018.)

As mentioned earlier, both S Group and Kesko Corporation have also introduced cyber-physical service to their physical stores to enhance service experiences of the users. While Kesko Corporation had utilized an external partner to provide cyber-physical services through smart shopping carts before the bankruptcy of the service provider, S Group has infused handheld barcode scanners to their stores (S-ryhmä, 2019). These service technologies, applications, and cyber-physical services, mediate the interactive value formation processes as the users utilize the services (Tommasetti, Vesci & Troisi, 2015). By incorporating these interactive technologies to their services, the service providers have improved their capabilities to facilitate direct interaction with their users and have thus improved their opportunities to affect the value formation processes of the users by participating in their service activities (Grönroos, 2011).

However, while the service providers prefer to focus on the co-creative value formation processes attained through interactive service activities, Echeverri and Skålén (2011, pp. 355) make an important remark in their article regarding interactive service activities facilitating value formation that do not necessarily result in co-creation. As value formation can result in co-creation of value, where value is cooperatively created between users and service providers, value formation may also lead to co-destruction of value where value is jointly diminished or destroyed among users and service providers, which can impact the service experiences of the user to the same extent as co-creative value formation (Echeverri & Skålén, 2011). The following section of this thesis is dedicated for describing co-creative and co-destructive value formation processes, focusing on the service experiences of the user facilitating value formation.

3 VALUE FORMATION IN DIGITAL SERVICES

In SDL, value-in-use is the basis for all service exchange, shifting the concept of service provider dictated value creation towards cooperative value formation, where users become active participants instead of passive consumers of value. This places significant emphasis on the interaction processes to facilitate resource integration and provision of superior service experiences. This chapter will first discuss how value can be jointly formed as users and service providers interact, moving to inspect value formation as co-creation processes where the service users benefit from the service use. This chapter concludes by examining how value formation may cause adverse effects as co-destruction, which is not as extensively examined phenomenon of value formation compared to co-creation of value in service and information systems research.

3.1 Value formation process

With modern services encompassing traditional, digital, and mobile, and cyber-physical service channels, the users are networked to the service systems in many ways, which means according to Verhoef et al. (2017, pp. 10) that their service experiences are also becoming more complex and unforeseen from the service provider viewpoint. However, the technological development has also enabled the users to increasingly interact directly with the service providers through interactive service interfaces of the digital, mobile, and cyber-physical services, which enable service providers to affect the service experience processes of the users (Grönroos, 2011).

Interaction among users and service providers ensures that the services meet the unique needs and expectations of the users as the users share information of their service experience processes and perceptions. However, if the users and service providers are not able to interact with each other in and efficient and congruent manner, the necessary resources and information of the service experience cannot be integrated, and the resulting value of the service may be

low or even destructive for both the users and service providers. (Yi & Gong, 2013.)

As noted at the end of the previous chapter of this thesis, Echeverri and Skålén (2011, pp. 355) argue that the interactive service processes facilitating value formation do not always result in the value co-creation outcomes, where value is created through cooperative interaction and resource integration. Value may also be co-destroyed through the interactive service activities where value is destroyed or subsided through the interactive processes, impacting the service experiences of the users (Echeverri & Skålén, 2011). Vargo and Lusch (2016, pp. 8-9) also note that value co-creation is a favourable and optimistic assertion of the service processes that facilitate value creation for the user. Therefore, as presented by Grönroos & Voima (2013, pp. 142), describing the interactive service activities and processes, which result in either co-created or co-destroyed value through resource integration, as neutral value formation processes reflect the value activities with more realism. This terminology also avoids labelling these value processes solely as either co-creative or co-destructive.

In the previous chapter, SDL was presented to focus on the value formation processes around the user interacting and integrating resources with the service system, including the service provider, through five axioms (Table 1). Users are thus integral co-creators of the value of the service, as well as a resource integrator with the service provider (Edvardsson, Tronvoll & Gruber, 2011). Since value is realized by the user through service usage as value-in-use as an accumulative process through experiencing the service, where the majority of the service literature defines the user feeling better off from using the service, Grönroos and Voima (2013, pp. 148) also note that the users may feel worse off from service use, resulting in negative value-in-use if the service providers are not careful with their interaction activities with the users and within the service system facilitating value formation.

These service systems, as defined by Maglio and Spohrer (2008, pp. 18-19), are cooperative value formation arrangements consisting of service participants, including users and service providers offering value propositions, where value formation depends heavily on interaction to facilitate resource integration resulting in value formation. The service providers provide value propositions, containing intangible resources that may be delivered through tangible goods or through digital service channels, to the users through interaction who integrate their resources and value drivers to the service use (Peters et al., 2016). This cooperative value formation is the venue of the interaction processes be-tween users and service providers (Prahalad & Ramaswamy, 2004).

These joint interactive activities facilitating value formation are present in all service forms, including mobile application services, where the value formation activities are no longer tied to a physical store or stationary computers, allowing users to utilize services in their everyday activities and experiences (Tuunainen, Tuunanen & Piispanen, 2011). This applies to cyber-physical service systems as well, where the interfaces that function as embedded interaction platforms between the users and service providers within physical goods become

more ubiquitous and technologically capable to provide contextual data of the service usage as the users use the services (Peters et al., 2016).

3.2 Joint value formation

Grönroos and Voima (2013, pp. 142) have exemplified value formation within service systems as an interactive resource integration process between users and service providers through a framework utilizing representative spheres. In this framework, illustrated in Figure 1 "Joint value formation (after Grönroos and Voima, 2013, pp. 142)" the joint processes within the joint sphere of cooperative value formation connects the otherwise discreet service provider spheres providing value propositions through service offerings and user spheres, where the value is realized through the use of the service as value-in-use, through interaction. This framework (Figure 1) also illustrates how value formation and its assessment of usefulness are tied to the service experience of the users and their various contextual factors affecting those experiences, which are inaccessible for the service providers without interaction (Kuppelwieser & Finsterwalder, 2016).

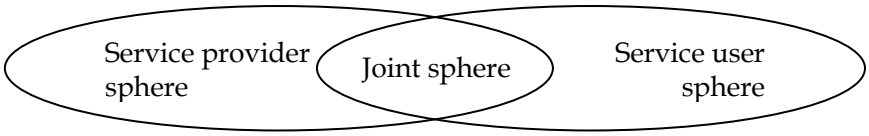

FIGURE 1 Joint value formation (after Grönroos and Voima, 2013, pp. 142)

However, the service providers can facilitate value formation through value propositions that are embedded within service offerings, representing potential value, which connect service participants to the interaction processes (Vargo et al., 2008). Value propositions concern the experienced value-in-use of the user, instead of product features to enable service provider participation in service experiences of the users facilitating value formation. In order to comprehend the unique service experience processes of the users, the service providers need information and knowledge, resources, from the users themselves and their service experience contexts where the users determine the value of the service. (Payne et al., 2008.) Service providers cannot authorize what the value of the service is by themselves within their own sphere (Figure 1) without interacting with the users (Vartiainen & Tuunanen, 2016). However, service providers can influence the value formation process through interaction with the users, who can include the service providers in the service experience processes (Grönroos & Voima, 2013). Prahalad and Ramaswamy (2004, pp. 10) emphasize that the role of the service provider in value formation processes is to assist value formation for the users.

Grönroos and Voima (2013, pp. 143) describe that the service experience within the user sphere (Figure 1), facilitating value-in-use, takes place in the various experiences that accumulate over time within individual and social contexts,

forming new expectations and goals for future service experiences. These service experiences are formed through the cognitive, emotional, and behavioural mental processes of the users, which are reflected in the use of the service (Payne et al., 2008). By interacting with the service provider, the users can enable service providers to participate in these service experiences. The providers in turn can then influence the service experience to meet the otherwise internal needs and expectations of the service experiences of the users, facilitating cooperative value formation. In this manner, both service participants influence each other through interaction as users integrate the services and resources to their unique service experiences and contexts where they independently realize the value-in-use of the service. (Grönroos & Voima, 2013.)

The core of the joint sphere (Figure 1), where the service users and service providers interact with each other as described by Grönroos and Voima (2013, pp. 145), is the physical, virtual, and even mental connection between users and service providers. These connections can be formed through various service interfaces facilitating interaction processes, such as traditional service locations, digital services, and meaningful dialogical interaction where the users and service providers are active participants (Grönroos & Voima, 2013). This interaction is not limited to the traditional dialogue that happens in person; instead, interaction can also entail cooperative affect and action in various service channels as the users interact with the services and their interfaces (Vargo & Lusch, 2016). The quality of the cooperative interaction activities becomes essential for the users, as it influences their service experiences and realization of value-in-use. Interaction quality is important for the service providers as well, since they utilize the resources of the users gained through interaction to amplify their comprehension of their independent value-in-use processes that affect service experiences, such as social context, which may not be relayed through direct interaction. (Grönroos & Voima, 2013.)

Cooperative, joint value formation can thus be achieved only through interactive processes (Plé, 2017). Utilizing the favourable terminology prevalent in the service literature, value is co-created in the joint interaction. During value co-creation, the users create value of the service through value-in-use, and the service providers are merely able to facilitate the value creation processes for the users through value propositions but may become co-creators through interaction and resource integration. (Grönroos & Voima, 2013.) The following subsection examines the beneficial, favourable value formation of value co-creation in further detail utilizing the positive terminology. The sub-sequent fourth, subsection in turn examines value co-destruction, further establishing value formation as a distinctly dualistic process that can result in the co-creation or co-destruction of value that result from the aforementioned interactions between users and service providers, affecting the user behaviour accordingly.

3.3 Value co-creation

As described in the previous subsection, this subsection concerns the prevalent sentiment of value formation within service research as value co-creation since Vargo and Lusch (2004, pp. 2) introduced the SDL to the marketing research, where the users are involved in service production processes. The prevalent service literature combining different research disciplines defines value formation as a creative, benign process, where value is co-created by integrating resources within service systems, particularly among users and service providers to benefit the users, which creates value (Jaakkola & Alexander, 2014; Grönroos & Voima, 2013).

Lintula, Tuunanen, Salo and Kari (2017b, pp. 3092-3094) have outlined the development of value formation throughout the prior development of SDL, which has been examined as a phenomenon in this thesis in chapter two within information systems context. Compared to the GDL, where the users consumed the value that was created and exchanged through goods, SDL regards interactive value co-creation to be a central service process to benefit unique users where tangible goods may deliver the service, applications of intangible resources to produce beneficial effects (Lintula et al., 2017b). The service participants within the service systems integrate resources to co-create value, which is realized by the user as value-in-use through their unique and context-sensitive service experience where the users feel better off from using the service (Grönroos, 2011).

As presented in the previous subsection and Figure 1 illustrating the value formation spheres, the users can also independently create value without interacting with the service providers, who can only provide value propositions but otherwise lack the capabilities to partake in the service experiences without interaction. However, the service experiences of the users are still affected by the contextual factors that are not related to the service provider, such as their inner goals they wish to attain through the service, and interactions within the social and individual contexts of the users. (Grönroos & Voima, 2013.) Therefore, these service experience factors and contexts remain present when value is co-created through joint interaction with the users and service providers, especially in digital services utilizing information systems where the opportunities to interact with the users are prevalent thanks to pervasive connectivity of the mobile services (Tuunanen et al., 2010). The value of the integrated resources and their applications as service is assessed by the user, who determines whether the service fits their contextual operating networks and environments, affecting their value drivers to co-create value with the service providers (Jaakkola & Alexander, 2014). Lintula, Tuunanen and Salo (2017a) note that these unique value drivers of the users can be met by the service systems with the value propositions through interaction to facilitate the enhanced co-creation of value, as the resulting service can account for the contextual environments and networks of the users.

Tuunanen et al. (2010, pp. 46) define that value co-creation in service systems, consists of two interacting sections through the value propositions of the

service systems and the value drivers of the users. Tuunanen et al. (2010, pp. 52) have formed a conceptual framework that depicts this process of value co-creation within consumer information systems, which are also referred to as service systems. Their framework shifts the focus of the value co-creation processes to the users and their interactions with service providers, instead of depicting the co-creation processes solely from the service provider viewpoint. In this framework, depicted in Figure 2, value is co-created for the user during the interaction processes between the system value propositions and user value drivers, which impact their service experiences and behaviour with the service to co-create value. These six major aspects that co-create value are described in further detail after Figure 2.

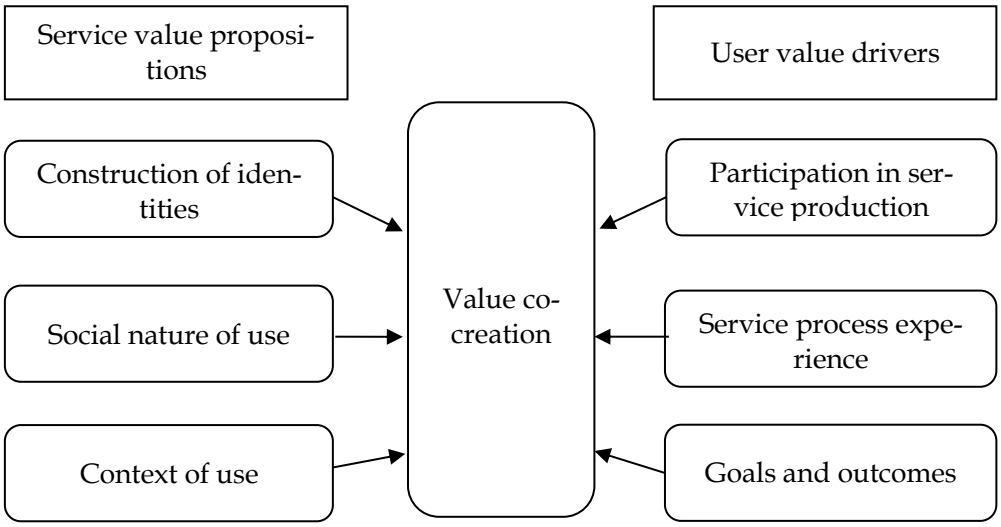

FIGURE 2 Framework for value co-creation in consumer information systems (after Tuunanen et al., 2010, pp. 52)

The framework (Figure 2) contains three major value propositions provided by the service systems, and three user value drivers. The detailed aspects within the service value propositions and user value drivers will be observed in the following subsections.

3.3.1 Service value propositions in value co-creation

The value propositions depicted on the left side in Figure 2 are the major aspects the service providers need to account for to facilitate value co-creation through beneficial service experiences. To co-create value with the users, the service providers need to be aware of the how the service experiences facilitate identity construction, social service use, and the context of service use for the users. (Tuunanen et al., 2010.)

As services have become prevalent in everyday lives of the users and present in nearly all of their daily functions, users may utilize the services to construct their personal identities as they relate to the service experiences and their

virtual representations of their lives (Tuunanen et al., 2010). By using the services and realizing co-creative value, the users may also experience accomplishment as their identities are affirmed, which facilitates enjoyable service experiences for the users, promoting value co-creation (Dong, Evans & Zou, 2008).

Service users, while constructing personal identities through services, do not function in isolation and often tend to seek out ways to network and interact with other users or their social circles through the services to maintain their social networks, which contain specific socio-cultural contexts and institutions (Tuunanen et al., 2010). This interaction amongst users further impacts the service experiences as users communicate and utilize word of mouth from other users to attain more information and perspectives (Prahalad & Ramaswamy, 2004). Different users within their unique social networks may have differing service experiences, and further insight from adjacent social networks and their experiences. This creates rich information of the various services experiences and bolsters the value perceptions of the users, which creates more specialized resources that can be integrated with the service providers. (Edvardsson et al., 2011.)

The context of service use is also important to recognize from the viewpoint of the users since it affects their service experiences as mentioned earlier throughout this subsection. Users co-create value and experience services within their specific unique contexts that create different value outcomes (Tuunanen et al., 2010). The service-use contexts are further affected by the social and cultural contexts, including the situational context of the environmental, physical, and mental processes affecting their service experiences that accumulate over time and impact their expectations for the future service experiences (Grönroos & Voima, 2013).

Services that are able to be aware of the contextual service use, such as cyber-physical services, provide great opportunities for enhanced value co-creation, since they can provide valuable and context sensitive information for users regarding their service usage, even within a physical location (Peters et al., 2016). Mobile services can also be utilized for context sensitive value co-creation and interaction, as they can be used in several unique situations in the daily activities of the users (Salo & Frank, 2017).

3.3.2 User value drivers in value co-creation

The value drivers of the users, illustrated on the right side in Figure 2, contain the major aspects of the user behaviour that facilitate and motivate value co-creation as they interact with the service providers and use the service, realizing the value-in-use. These value drivers consist of service production participation, the service process experience, and the goals and outcomes of the users. (Tuunanen et al., 2010.)

To produce services that can be accepted by the users for value co-creation, service providers depend on including their input and resources to ensure that the services and value propositions meet their motivations and goals. As the digital services have also become more ubiquitous in the everyday activities of the users, users have also started to expect more personalized service experiences

that fit their individual processes. (Tuunanen et al., 2010.) Users can choose whether or not they interact with the service providers, depending how they perceive the value of the service and the interaction quality with the service providers (Prahalad & Ramaswamy, 2004). As users interact with service providers and integrate their specialized intangible resources, such as contextual information, users participate in service production, co-creating value that meets their unique motivations and goals (Dong et al., 2007).

To attain the desired service experiences that are engaging and value co-creative, the users should be able to benefit from the service usage to derive utilities, but also engaging processes that creates pleasant experiences through hedonic values in the service experience contexts (Tuunanen et al., 2010). Prahalad and Ramaswamy (2004, pp. 12-13) emphasize the importance of superior service experiences that are foundational for realizing value-in-use, which depend on well-managed interaction processes with the service provider. The individual, social, mental, and physical contexts and processes affect the service experiences as well along with interaction, which may lead to co-creation or co-destruction of value depending how the users experience the use of the service within their user sphere (Figure 1) (Grönroos & Voima, 2013).

As noted, users have different goals and motivations to utilize services and interact with the service providers to meet their unique service requirements, motivations and needs for the service. These goals and motivations thus impact value co-creation processes. (Edvardsson et al., 2011.) Users interact and integrate resources that are subject to their goals and motivations, which can be regarded as either hedonic or utilitarian (Tuunanen et al., 2010). Tuunanen, Lintula and Auvinen (2019b) have described the utilitarian value drivers of the users as goal and productivity-oriented, which are utilized to attain extrinsic, beneficial value from the service usage. Hedonic value drivers, on the other hand, are aligned towards pleasure that can be attained from service activities and features, instead of outright service usage. Hedonic motivations and goals may be met with engaging service experiences and interaction activities, where the users consider the experiences and interactions to be fun and exciting. (Tuunanen et al., 2019b.)

During the interactive value formation processes, the value resulting from the value propositions from the service providers and value drivers of the users can result in co-created value, where the user feels better off. However, the value formation processes may also result in value co-destruction, where the resulting value may be diminished or destroyed through the cooperative service processes and interaction activities, leaving users feeling worse off. (Echeverri & Skålén, 2011.) These value formation processes that lead to value co-destruction will be examined further in the following subsection.

3.4 Value co-destruction

As concluded with Echeverri and Skålén (2011) in the previous subsection, the interactive service value formation processes can also be co-destructive, in-stead

of co-creative. Authors Plé and Chumpitaz Cáceres (2010, pp. 431-432) have been foundational in defining this value co-destruction phenomenon within service processes, stating that it is necessary to consider the negative service processes as well in order to fully achieve efficient and beneficial services for the users. By understanding the reasons and processes of how value formation may lead to co-destruction, service providers are able to recognize and correct the service processes and interaction accordingly to avoid or minimize the value co-destruction processes (Plé & Chumpitaz Cáceres, 2010).

The concept of value in services is described to be inherently positive, as Vargo and Lusch (2004, pp. 13-14) have specifically defined services as processes that benefit service participants, where the users feel better off after using the service. The prevalent service research literature also defines the interaction processes that facilitate value formation in a favourable manner, disregarding the possible outcomes of unsuccessful and impaired value formation processes that potentially lead to value co-destruction (Lintula et al., 2017a). Some authors who have researched value formation in services, such as Grönroos (2008; 2011), have briefly noted that value co-creation may actually leave users worse off if the service providers are not able to manage service processes and interaction sufficiently. However, service research that accounts for value co-destruction displays favouritism towards value co-creation although value co-destruction has been emerging in service research, as noted by Plé (2017, pp. 163). The notion of value co-destruction is still somewhat ambiguous, since the phenomenon has not received extensive research focus to the same extent as value co-creation (Lintula et al., 2017b).

Focusing solely on value co-creation omits the realism of the service processes and interaction that happen in practice, since achieving completely flawless service and interaction is not humanely or technologically feasible (Plé & Chumpitaz Cáceres, 2010). Users also do not always interpret interaction with the service providers favourably for various reasons, which stem from their service experiences and perceptions (Lintula et al., 2017a). Value co-destruction decreases the user satisfaction, resulting in negative word of mouth and poor expectations of future service experiences, implying considerable consequences for the service providers. Value co-destruction thus decreases the competitive capabilities and sustainability of the service providers. (Lintula et al., 2017b.)

Value co-destruction occurs during the interaction processes where users and service providers integrate resources and cooperate in value formation processes (Plé & Chumpitaz Cáceres, 2010). Just as resource integration can result in beneficial service experiences and value co-creation, resource integration may also have adverse results through their misuse and depletion. For example, lack of time to participate in value formation processes may lead to decreased resource integration, which reduces or even destroys value for at least one of the service participants. (Lintula et al., 2017a.)

If resources are not properly integrated as expected within the service system to the services, value can be co-destroyed through resource misuse where the users and service providers dissipate their own resources, or those resources

that have been integrated by other service participants (Plé & Chumpitaz Cáceres, 2010). This applies to the interaction processes as well. If the interaction processes integrating resources do not fit the service experience contexts, or are otherwise inappropriate or lacking, value formation can be co-destructive (Plé & Chumpitaz Cáceres, 2010). If the interaction processes are infrequent, sufficient information may not be integrated, leading to increased lack of resources (Lintula et al., 2017a).

This dissipation of resources is also referred to as resource misuse leading to value co-destruction, which may be accidental and unexpected, or intentional. (Plé & Chumpitaz Cáceres, 2010.) Value co-destruction that happens unintentionally may be caused by accidental resource misuse or hindered interaction processes, such as human errors and unexpected technological failures. However, intentional co-destruction of value may be motivated by the desire of a service participant to attain benefits, such as resources and information, at the expense of other service participants, causing value imbalances within service systems. (Plé & Chumpitaz Cáceres, 2010.)

Echeverri and Skålén (2011, pp. 355) have noted that those same processes and activities during value formation through interaction and resource integration, which co-create value, may reciprocally result in value co-destruction. Being aware of what processes and aspects of value formation could lead to co-creation or co-destruction of value is important for service systems, since this understanding could help avoid value co-destruction accidentally, and recognize intentional co-destruction processes (Plé, 2017). The six major aspects that co-create value through service value propositions and user value drivers defined by Tuunanen et al. (2010, pp. 52) (Figure 2) are reflected against the processes that could conversely result in value co-destruction, which will be observed in the following subsections.

3.4.1 Service value propositions in value co-destruction

The construction of identities of the users may result in value co-destruction, if their identities are not sufficiently affirmed through service experiences and interaction, where resource misuse and poor interaction decrease the qualities of the integrated resources. For example, poor interaction may leave users with unclear service perceptions, impacting their decision-making and identity construction, as they are uncertain of their capabilities to use the service. (Smith, 2013.) If the users also perceive that their integrated resources are misused, leading to subpar service experiences that do not meet their expectations, users may feel worse off as they may have lost personal resources such as time and effort (Plé & Chumpitaz Cáceres, 2010). Unsatisfactory identity construction may result in frustration and stress in users, decreasing their wellbeing and causing the attractiveness of sustaining interaction with the service providers (Smith, 2013).

The social nature of service use can also lead to value co-destruction if the social networks spread negative word of mouth, communicating their dissatisfaction with the service, which may affect the service experience of the users as these interactions do not depend solely upon the service provider (Lintula et al.,

2017b). As Yi and Gong (2013, pp. 1280) state, the more pleasant the social nature of using the service is for the users, the more likely they are to participate in value co-creation processes. The opposite may be also realized. If the social networks perceive the service experiences negatively, the user may also adopt this perception and willingly or accidentally, and thus co-destroy value if they decrease the interaction processes or misuse resources, for example by omitting important information (Smith, 2013; Yi & Gong, 2013).

The context of service use may result in value co-destruction if the context is not suitable for value formation processes, leading to resource dissipation or misapplication if the resources or interaction processes do not fit the service-use context. This discrepancy may be caused by inappropriate and unexpected interaction, or resource mismatch, in value formation processes within unique service use contexts. (Plé & Chumpitaz Cáceres, 2010.) The processes of how users integrate resources to realize value are dependent of the contexts (Grönroos & Voima, 2013, pp. 139), thus inconsistency between service-use contexts and interaction could result in value co-destruction.

3.4.2 User value drivers in value co-destruction

User participation in service production can also lead to value co-destruction if the users do not integrate their specialized resources, such as information and time to participate in service processes, or do not provide access to their service experiences for the service providers (Plé & Chumpitaz Cacéres, 2010). As service providers are dependent of the resources and interaction of the users to provide service propositions that meet their goals and motivations to use services (Tuunanen et al., 2010, pp. 55), insufficient interaction and resource integration can lead to co-destructive value (Lintula et al., 2017a).

The service process experience of the users that do not result in realizing value-in-use co-destroy value, as the interaction processes integrating resources may not meet the contextual social and individual environments of the user, or their mental and physical processes. Value is diminished or destroyed in cooperative value formation processes between the service providers and users if these service participants are not able to fulfil their expectations of the service process experiences. (Lintula et al., 2017a.) Unproductive service process experiences can have extensive consequences to service providers, as the unsatisfactory service experiences affect the future service experiences of the users, who may also engage in negative word of mouth with other users (Bitner & Meuter, 2000).

The goals and outcomes for service use stemming from different motivations and goals of the users may result in value co-destruction, if the goals cannot be met due to ineffective interaction as noted by Grönroos and Voima (2013, pp. 148). However, Vartiainen and Tuunanen (2016, pp. 1269) point out that the motivations and goals of the users may not always be constructive for cooperative value formation, especially if they seek to attain one-sided advantages and gains, such as utilitarian value or hedonic experiences, at the expense of other users or other service participants.

According to Smith (2013, pp. 1896-1899), once the users have experienced value co-destruction leading to resource depletion, such as wasted time, money and energy spent in unsatisfactory service experiences, users may renounce the service and engage in service switching behaviour. As value co-creation and co-destruction processes are clearly critical for both users and service providers, it is crucial for service providers to understand how value is formed for the services through cooperative processes to make sure that the critical processes lead to value co-creation, which sustain the competitive capabilities (Payne, Storbacka & Frow, 2008). Singh (2019, pp. 1312-1313) further emphasizes this observation by noting that as modern users are value driven service participants, expecting unique and consistent service experiences from every service channel they use, the prevalence of complementary services can enable users to easily switch services.

The subsequent section of this thesis concerns the service switching behaviour of the users and the factors that may push the users away from the service pull users to switch service, or moor users to the service.

4 SERVICE SWITCHING BEHAVIOUR OF THE USER

This chapter examines the service switching behaviour of the users, and the theoretical framework that explains the switching behaviour. The first subsection introduces the theoretical backgrounds from migration research, which have been foundational for the contemporary, overarching framework and its pushing, pulling, and mooring factors. The second subsection defines the theoretical framework in detail, describing how its components can explain the complex phenomenon of service switching behaviour in service context. The final subsection regards how service switching behaviour of the users may be driven by the different value formation processes.

4.1 Background to service switching

As service channels have diversified, for example in retail, ranging from traditional stores to online shopping sites, and mobile service applications to cyber-physical services such as smart shopping carts, the users expect the services to provide convenient service processes in the service channel they have specifically chosen (Oh & Teo, 2010). The ubiquitous connectivity and mobility of the services, especially mobile applications, also implies that the users can utilize various services in several situational contexts that are required to satisfy their diverse needs (Salo & Frank, 2017; Hsieh et al., 2012).

Zhou (2011, pp. 241-242) has noted that the abundance of services available on mobile devices as applications can enable users to switch easily across service applications, which incurs lost value formation with users for the service providers. This is detrimental for the service providers and the service systems, as the continuous service experiences and interaction facilitating the realization of value-in-use that can be created jointly with the users is crucial for success (Oh & Teo, 2010).

Keaveney (1995, pp. 72) argues that the switching behaviours, which can lead to unfavourable consequences for the service organizations, are induced by

critical incidents in service experiences that occur within the interfaces between users and service providers as they interact. These critical incidents that the users face during the service experiences may lead to various behavioural outcomes, depending upon the nature of the critical incident. As particularly positive incidents during the service experiences may strengthen service continuance, negative incidents can lead to adverse user behaviours that further impair the relationship between the user and service provider, such as service switching behaviour. (Salo & Frank, 2017.)

If the services are not able to maintain long-term users, the decreased interaction processes also led to diminished value as fewer users interact with the service providers realizing value-in-use (Hsieh et al., 2012). Keaveney (1995, pp. 71) also notes that the damage caused by the service switching behaviour is not limited to the adverse effects on the revenue streams only, as obtaining new users can cause significant costs as well. For example, their service accounts are set up and the users have to learn to utilize and interact with the service providers to the full extent, which creates increased operating costs for the service providers (Keaveney, 1995). For service providers, it is important to comprehend how the users assess the service experiences, as reduced user-base results in reduced and destroyed value and impaired competitive capabilities (Bansal & Taylor, 1999). This applies to digital and cyber-physical services as well, as Berman (2012, pp. 22) argues that the sustained service use in one service channel enhances beneficial service experiences in other service channels as well, which are accumulated over time through regular service experiences (Grönroos & Voima, 2013).

As co-creative value processes in one service channel, such as trying on shoes in physical store, can bolster value co-creation on other service channel, for example purchasing the shoes through the online store with a discount, the service experiences of the user reinforce their satisfaction and positively impacts their future expectations of the service experiences on different service channels (Berman, 2012). However, as noted by Keaveney (1995, pp. 79), the interaction between the users and service providers becomes critical for sustaining continued service experiences, since interaction processes are essential for value co-creation as well, which may otherwise lead to service switching behaviour and co-destruction of value.

Factors that may impact switching behaviour include perceived value formation quality, derived value from using the service, appeal of alternative service experiences, influence from contextual environments and networks, and the tendency to seek out excitement and varied experiences, to name a few examples (Bansal et al., 2005). Service switching behaviour is a complicated issue of human behaviour, where the decision to switch services is affected by multiple contextual factors (Keaveney, 1995).

Bansal et al. (2005, pp. 96) note that the service switching behaviour research is based on the research of human migration, where people physically move across geographical distances from one place to another, whereas service switching phenomenon concerns users switching service providers. Lee (1966, pp. 50) conducted foundational research on the theory of migration, determining that

migration may be caused by the interaction between negative pushing effects that push people to move from their place of origin, and positive pulling effects attracting them to their destinations. Moon (1995, pp. 514) has further elaborated the processes of migration by incorporating moderating factors that moor, anchor, people to their places of origin. These moderating factors are based on their social and personal contexts as mooring factors within migration research alongside push and pull factors, which may facilitate or inhibit the decision to migrate (Moon, 1995).

Bansal et al. (2005, pp. 101) have formed an overarching framework based upon this work by Lee (1966), extending the research by Moon (1995) to service context to remedy the lack of extensive frameworks determining how the switching behaviour of the users may be understood. This framework consists of various push and pull factors, and mooring factors, introduced by Moon (1995, pp. 514), which affect the switching intention of the user that may or may not lead to realized service switching behaviour.

Bansal et al. (2005, pp. 98) argue that the preceding push-pull models, such as theory of migration by Lee (1966), are not capable of capturing the comprehensive complexities of switching behaviour. Bansal et al. (2005, pp. 98) support this statement by noting that the users, people, may not migrate due to situational restrictions from their surrounding contexts, even if the push and pull effects are strong. The inclusion of the mooring factors, as defined by Moon (1995, pp. 514) account for these effects that moderate the switching behaviour of the users, enabling or inhibiting the switching intention preceding switching behaviour (Nykänen, 2014). This framework and its components will be examined in further detail in the following subsection.

4.2 Push-pull-mooring framework

The push-pull-mooring framework (PPM framework) introduced by Bansal et al. (2005, pp. 101) in service context has been useful in service research that concerns user switching behaviour to understand the complex factors behind the switching behaviour of the users, even within digital service contexts (Hsieh et al., 2012). The PPM framework offers a theoretical viewpoint to recognize factors and their connections that affect switching behaviour in users, where the push, pull, and mooring factors have direct and moderating impacts upon switching intention (Bansal et al., 2005). The push and pull factors correspond to the pushing and pulling effects as defined by Lee (1966, pp. 50), as push factors affect at the service of origin that push the users from their current service, and pull factors pull the users to alternative service destinations (Bansal et al., 2005).

However, as mentioned in the previous subsection, the service switching framework remains incomplete if it is not capable of explaining the moderating factors that stem from the contextual service environment and processes of the users, which may either hinder or enable service switching behaviour. For this reason, Bansal et al. (2005, pp. 103) also utilize moderating mooring factors as

described by Moon (1995, pp. 514) to formulate an overarching framework for service research to comprehend the service switching behaviour of the users. This PPM framework and the causalities between push, pull, and mooring factors, leading to switching intention and finally to switching behaviour, is depicted in Figure 3 after Bansal et al. (2005, pp. 101). These components that explain the service switching behaviour in users are described after Figure 3.

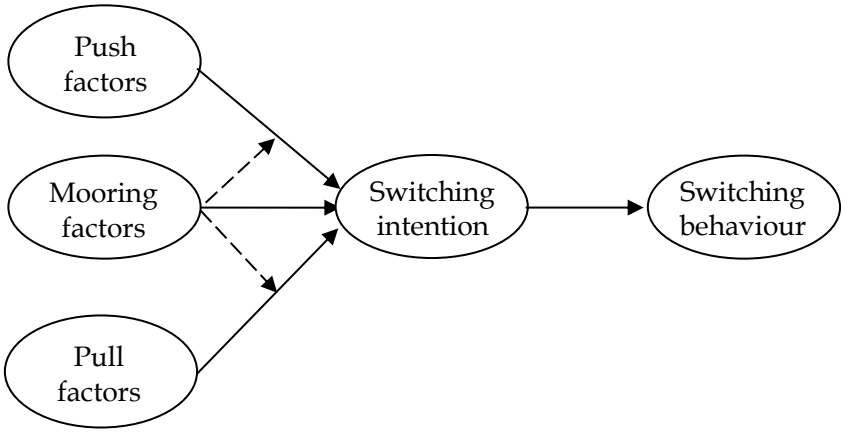

FIGURE 3 Push-pull-mooring framework (after Bansal et al., 2005, pp. 101)

Keaveney (1995, pp. 72) defines service switching behaviour as behavioural activities of the users stemming from the decision to switch from one service to another. These decisions are directly affected by service switching intention of the user and are thus indirectly affected by the contextual push, pull, and mooring factors (Bansal et al., 2005). As modern users utilize several services in tandem for different purposes, the switching behaviour may not involve total service substitution, but instead significant decrease in service use (Hsieh et al., 2012). Decrease in service experiences can have significant negative consequences on value formation processes, and thus service providers, due to the loss of continuous interaction.

The service switching intentions of the users to engage in service switching are dependent of the contextual and situational push, pull, and mooring factors (Bansal et al., 2005). If the intention of the user is more positive towards switching services, the more likely they are to switch services as they are influenced by factors that push them away or pull them towards other services (Bansal & Taylor, 1999). However, the switching intention may be inhibited or further facilitated due to the mooring effects that can anchor users to their current service (Bansal et al., 2005).

The push factors contain negative influences on users that push them away from the service by promoting switching (Nykänen, 2014). These push factors may consist of unsatisfactory service experiences and poor value and quality perceptions, which can decrease their commitment to interact with the service providers and motivate switching behaviour. The push factors may also stem from low trust towards the services, along with high prices of using services. (Bansal

et al., 2005.) This may stem from value co-destruction during service processes and resource misuse, as users are not able to gain optimal benefit from the service usage (Singh, 2019). Schreiner and Hess (2015, pp. 3) also observe that the satisfaction, or dissatisfaction, which is perceived during the contextually sensitive service experiences, is an important component of the push factor that promotes users to switch services.

The pull factors that attract users to alternative services on the other hand are regarded as positive factors that promote switching to other services (Nykänen, 2014). These pull factors consist of alternative services that appeal to the users, pulling them from their current service (Bansal et al., 2005). These positive features of rival services and service providers can be described as "alternative attractiveness" which offer users more prospective value, facilitating enhanced value co-creation, and more beneficial service experiences compared to their current service processes (Nykänen, Tuunainen, Piispanen & Tuunanen, 2015). Within digital and mobile service context, the pull factors promoting switching behaviour become enhanced, as users can easily switch between digital services and applications (Hsieh et al., 2012).

The mooring factors that either inhibit or facilitate switching intention contain the situational and contextual factors that anchor the users to their current service. These factors also contain the service experiences that have accumulated over time as the users have used the service and interacted with the service providers, and the perceived costs incurred by switching, also referred to as switching costs. These mooring factors can directly influence switching intention, but they also moderate the associations between the push and pull factors and switching intentions. (Bansal et al., 2005.) The switching costs associated with mooring factors can be defined as the perceived and experienced behavioural and resource constraints that are caused by service switching (Bansal & Taylor, 1999). When the switching costs are perceived to be high, users are less likely to switch services as their relational value and resource costs would be too high (Hsieh et al., 2012).

Mooring factors also incorporate the individual, social, and situational context factors and processes that inhibit or enable service switching, which moderate the push and pull factors and the switching intention of the users. These mooring factors may for example concern the attitudes, norms, and personalities concerning the curiosity to seek alternative services that inhibit the users from switching, along with their earlier experiences of switching services. (Bansal et al., 2005.) For example, users may not wish to switch if they have formed an emotional bond to the service, even if the push factors were strong (Schreiner & Hess, 2012). Conversely, if the users have had less than satisfactory service experiences in the past, the switching costs may be lower and the users may be more open for engage in service switching behaviour (Nykänen et al., 2015).

The PPM framework is closely related to the value formation processes between service users and service providers. This statement will be examined in further detail in digital service context in the following chapter, summarizing the concepts of service switching behaviour and value formation processes.

5 SERVICE SWITCHING BEHAVIOUR AND VALUE FORMATION IN DIGITAL SERVICES

This chapter aims to summarize the core content of the preceding chapters explaining omnichannel services in retail context, value formation processes through co-creation and co-destruction of value, and service switching behaviour through PPM framework. This summarization will be illustrated through a table depicting how the six value formation aspects can be reflected through PPM framework to explain the concept of service switching behaviour.

5.1 Summarizing service switching behaviour and value formation processes

The prevalence of services across different service channels, and the ubiquitous connectivity that enable service system participants to interact continuously in any service experience context, create new needs to understand user behaviour within services. Organizations also need to understand how the value formation processes of the users can be supported to ensure superior service experiences, and creation of value-in-use. (Salo & Frank, 2017.)

In this chapter, the service switching behaviour, as explained through the PPM framework after Bansal et al. (2005, pp. 101) will be reflected with the aspects of both co-creative and co-destructive value formation processes through service value propositions and user value drivers as explained through Figure 2 after Tuunanen et al. (2010, pp. 52) in chapter three of this thesis. This reflection aims to inspect the service switching behaviour factors, the pushing, pulling, and mooring factors, which may stem from the value formation processes the users experience.

Table 3 aims to summarize the findings made from the literature to reflect the service value propositions and user value drivers to the PPM framework explaining the switching behaviour. The 18 cells displaying the key information of the various factors explaining switching behaviour in accordance with the push,

pull, and mooring factors, and the six aspects of value formation from identity construction to goals and outcomes aim to illustrate the complexity of the switching behaviour concept, and how these various factors relate to different service channel experiences as experienced by the users. These factors are examined in detail after Table 3.

TABLE 3 Summarizing service switching behaviour and value formation

		Push factors	**Pull factors**	**Mooring factors**
Service value propositions	**Identity construction**	Service provider uncertainty.	Identity attraction. Personalized service.	Convenience of use. Personal switching costs.
	Social nature of use	Lack of social interaction.	Peer influence.	Peer pressure.
	Context of use	Dissatisfaction	Value perception.	Habit.
User value drivers	**Participation in service production**	Lack of commitment.	Information access.	Participation costs.
	Service process experience	Low service quality.	Comprehensive service experience.	Past experience.
	Goals and outcomes	Negative experience.	Possibility to attain goals.	Switching costs.

5.2 Service value propositions reflected in switching behaviour

Service value propositions, as defined by Tuunanen et al. (2010, pp. 49-50), which consist of the identity construction, social nature of service use, and the context of service use, can be reflected through the PPM framework and the individual, social, and contextual setting as illustrated in Table 3. These three value formation aspects are consistently present in service switching research, as explained further in the following three subsections.

5.2.1 Identity construction reflected in switching behaviour

The construction of the user identities through service use can result in value co-creation, and co-destruction. If the users can construct and affirm their identities through service use as they relate to the service experiences in a satisfying manner, value can be co-created (Tuunanen et al., 2010; Dong et al., 2008). Conversely,

if the user identities are not affirmed through interaction and service experiences, value may be co-destroyed instead as users become uncertain how to relate, and use, the service causing frustration in users (Smith, 2013).

A clear factor pushing users away from their current service affecting their identity construction is service provider uncertainty, as defined by Li et al. (2018, pp. 56) within omnichannel retail service context. Service provider uncertainty pushes users to switch services by their perceived mistrust and uncertainty towards service providers, where service usage has caused value co-destruction as the service providers have engaged in opportunistic misuse of the resources, such as personal information. Even if this resource misuse is a perceived risk, and not an actual experience, the users may still be pushed to switch services in order to minimize the risks towards themselves caused by the service provider uncertainty across the multiple service channels. (Li et al., 2018.)

Personal service experiences are clearly important for the users and their switching intentions, which can also pull users to switch to alternative services. Within omnichannel retail service context, identity attractiveness can be regarded as a pull factor to explain service switching behaviour in users. This identity attractiveness pulls users to switch services, even within the same service provider where the switching occurs from one channel to another, by the appealing service features that support the identity affirmation of the user by meeting their personal needs. These appealing, personalized service features create congruence between the service provider image, such as the brand, and the personal identity of the user. In other words, the users may perceive that the service provider is compatible with their unique identities. (Li et al., 2018.) Within mobile retail service context, the personalized services can entice users to use services with appealing mobile service applications that are able to facilitate targeted service offerings in real-time, pulling them to the service (Inman & Nikolova, 2017).

The mooring factors that relate to the identity construction of the users are more numerous, as the switching behaviour is dependant of the individual personal factors and contexts, which can anchor the user to the service or moderate other factors that affect their switching intentions (Moon, 1995). The personal switching costs that function as mooring factors for the individual users may then moderate switching behaviour if service switching implies costs to their identity construction. Newman et al. (2018, pp. 212) have noted that the convenient usability of the service, such as mobile service application, can deepen the personal connection of the user to the service, as they are more capable to include the service to their personal identities. The users are often able to personalize their service experiences through the personal information and usage data that they voluntarily provide and store on their mobile devices. This personal information of the unique user, such as contact and transaction data, can be used to create personalized service that meets their individual preferences and needs. (Newman et al., 2018.)

Users may also perceive that they will lose the benefits of the personalized service if they switch, especially if they are unsure of the attractiveness of the alternative service. (Viswanathan, 2005.) Salo and Makkonen (2018, pp. 391) have

also specified that these personal switching costs can be formed through the personal information and usage data aggregated over time, which may be lost if the users switch. These personal switching costs created through the personal information are particularly applicable to digital service and mobile applications, as users can access these services continuously. The mobile service applications can also keep storing personal data if they are left running in the background of the mobile platforms, such as phones and tablets. (Salo & Makkonen, 2018.)

5.2.2 Social nature of use reflected in switching behaviour

The social nature of service use also contributes to value co-creation and co-destruction, as users do not experience service use in social isolation (Tuunanen et al., 2010). The social nature of service use can facilitate value co-creation through unique social networks of the users where the users communicate their different service experiences through word of mouth. This creates valuable resources to improve the services, in order to provide superior value propositions that co-create value. (Edvardsson et al., 2011.) However, this communication can also lead to value co-destruction if the socially communicated service experiences relay negative information about the service experiences (Lintula et al., 2017b). This may in turn affect the service experience perceptions of the users, either intentionally or accidentally, where the user also considers the service experience to be negative. As a result, the users may decrease the service use, which co-destroys value. (Smith, 2013.)

As users are increasingly able to conduct interactions without service providers with other users through services, especially through digital and mobile services, service experiences can be easily communicated through word of mouth. This can be either beneficial or detrimental for service providers depending how the users are affected by their individual and social contexts. (Zhou, 2011; Salo & Frank, 2017.) Salo and Frank (2017, pp. 7-8) have also noted that a lack of social interaction, including interaction with service representative personnel, can push users away from the service, especially if the social network of the user holds negative perceptions of the service, which may be communicated through complaints and word of mouth.

The pull factors that entice users to switch services can also be affected by the social nature of service use, as observed by Fei and Bo (2014, pp. 554) especially in services offering social networking capabilities. Peer influence from the social networks can influence the switching intention of the user as a pull factor. Users may perceive that the alternative service can offer improved ways to socialize with their social networks and fulfil to their desire to improve their own social image by using the favourable alternative service. (Fei & Bo, 2014.)

Social influence in service experiences can also be regarded as a distinct mooring factor as well, especially within earlier service switching research preceding the prevalence of digital services offering opportunities to engage in social interaction, where the research focus targeted general service switching behaviour in traditional service contexts (Bansal et al., 2005; Fei & Bo, 2014). Within the more recent research on service switching behaviour incorporating the context of

digital services, Nykänen et al. (2015, pp. 5-6) have defined the social aspects of service use to influence service switching intention through peer pressures, especially within mobile service application context. The mobile service applications enable persistent connectivity and interaction between the users and their social networks. This has increased the influence of the social nature of service use on their service experiences, inhibiting switching if the service switching behaviour goes against the social norms of their social networks. (Nykänen et al., 2015.) Salo and Makkonen (2018, pp. 395) have also observed that the peer pressures to maintain service use may stem from the fears of losing social connections and interaction in users and being left out of their social networks as a result.

5.2.3 Context of use reflected in switching behaviour

The context of service use for value formation is crucial during service the service experiences (Tuunanen et al., 2010). In order to co-create value, the service-use contexts need to support value formation within the social and cultural contexts, but also within the unique individual contexts affected by the environmental, physical, and mental processes of the user. If these service experience and usage contexts are not supportive for value formation, value may be co-destroyed instead. (Grönroos & Voima, 2013.) Also, the resources themselves may not fit the use context, which can result in less-than-optimal resource integration and misuse co-destroying value. The interaction should also be managed carefully, as inappropriate interaction that does not fit the use context, which also results in the co-destruction of value. (Plé & Chumpitaz Cáceres, 2010.)

Since the service experiences have become highly contextual and diverse, as service channels have developed, it is crucial for service providers to comprehend how the users assess the service experiences and value formation processes to ensure that the value formation processes are co-creative instead of co-destructive. By understanding how the contextual factors affect the service experiences of the users, and how users evaluate the service processes and interactions, service providers are able to recognize and diminish value co-destruction processes as early as possible, which may cause them to switch. (Meuter, Ostrom, Roundtree & Bitner, 2000.)

Within the context of service use, dissatisfaction towards service use is a distinct factor pushing users to switch services (Schreiner & Hess, 2015). If the user perceives that the service does not fit their complex contexts affecting their service experiences, the users may switch to another service, especially in mobile service application context where switching is often easy due to the numerous alternative services (Salo & Makkonen, 2018).

The pull factors on the other hand that attract users to switch refer to the desired and positive aspects of the alternative service, where users may perceive the context of service use to be more beneficial for them (Schreiner & Hess, 2015). Inman and Nikolova (2017, pp. 15-16) have used value perception to define how the users evaluate the contextual service experiences based on the interactive resource integration, assessing, and comparing the current and alternative services with the resources they integrate and the resources they receive from the service.

As already noted, the context of service use is a significant and distinct mooring factor in service switching research moderating and influencing service switching behaviour, as Bansal et al. (2005, pp. 101) have established. Salo and Makkonen (2018, pp. 384) have defined through their research that habits can have a significant impact on service switching intentions by inhibiting switching behaviour especially in mobile service applications, which are often used daily in any kinds of physical or social environments. Habits can inhibit the pushing and pulling factors, as the services have become contextually sensitive after interacting with the user frequently and being able to offer personalized services as a result. Some users may also simply become accustomed to the service, maintaining service use even if the service itself is subpar because it is familiar to the users. (Salo & Makkonen, 2018.)

5.3 User value drivers reflected in switching behaviour

As explained in previous subsection, reflecting the PPM framework to the service value propositions offered by service providers for value formation, the user value drivers consisting of service production participation, service process experience, and the goals and outcomes of service use can also be reflected through the PPM framework to explain the complex switching behaviour of the users, as illustrated in Table 3. These user value drivers are also present throughout service switching literature and reflect the very contextual nature of service use in individual users.

5.3.1 Participation in service production reflected in switching behaviour

To facilitate value co-creation through the digital service experiences, service providers have become dependent of the user participation in service production to meet their unique needs and expectations (Tuunanen et al., 2010). This user participation in service production can enhance the resource integration processes and interaction, allowing service providers to integrate their value drivers to the service offerings and value propositions, which can co-create superior value (Dong et al., 2008). As users participate in service production, they can also affirm their identities as they may feel that their needs and expectations are heard through enjoyable interaction through their participation in service production (Smith, 2013). However, lacking interaction may cause value co-destruction during this service production participation, for example if the users do not have sufficient time to participate and interact with the providers, sharing their resources and service experiences with them (Plé & Chumpitaz Cáceres, 2010).

This lack of satisfactory interaction can also lead the users to perceive that they have do not have a strong connection to the service and service providers. This can lead to a lack of commitment to participate in service interaction and its production that push the users away from the service. The lack of commitment to participate and interact with the service providers can stem from weak and

impersonal relationships between the users and providers, where users may perceive that their service behaviour has no impact on the service and service providers even if they stop using the service. (Salo & Makkonen, 2018.)

Conversely, the pull factors attracting users to switch to alternative services within the context of service production participation can consist of the improved access to information, where the users may perceive that the alter-native service can fulfil their need to access necessary information better than their current service, which can drive their willingness to participate in the alternative service (Fei & Bo, 2014). Information access can pull users to participate in alternative services especially in digital service context, as specified by Fei and Bo (2014, pp. 557-558), but also within the omnichannel service context as defined by Oh and Teo (2010, pp. 42). Users can access alternative services to seek information anywhere and anytime through the mobile service applications even within physical service locations but may switch services from mobile applications to physical stores if the interaction with the service personnel can grant them a convenient and personalized access to information that is not available through other service channels. The service personnel can utilize their specific technology to support the situational service experiences of the users and can in turn learn from their service participation to improve the personal service. (Oh & Teo, 2010.)

Participation in service production through service use also accrues various costs that function as mooring factors through switching costs, as users can spend a considerable time and effort, and sometimes money, to participate in the service, which inhibit their switching intentions and switching behaviour (Bansal et al., 2005). For example, users may think that creating a new account that could substitute their current service account may take too much effort and time, which anchors them to their current service (Fei & Bo, 2014). The users may also perceive that they could lose the already established convenient service experiences if they switch to other service, such as switching from a familiar service location to a new location, where the users may lose the familiar interaction offered by the service personnel (Singh, 2019).

5.3.2 Service process experience reflected in switching behaviour

The service process experience that drives the value formation processes of the users can become co-creative through superior service experiences (Prahalad & Ramaswamy, 2004). These experiences that co-create value are affected by various contextual factors of the users, such as the individual, social, and physical contexts (Grönroos & Voima, 2013). When users perceive that the service experiences fulfil their utilitarian motivations, where using the service benefits them, and hedonic motivations to use the service where users are able to derive enjoyment from service use, the contextually sensitive service process experiences can support value co-creation (Tuunanen et al., 2010). Service process experiences may also be co-destructive if the service experiences do not fit the service experience contexts and processes of the users. This leads to negative perceptions as their expectations are not met and their resources may be misused. (Lintula et al., 2017b.)

If the service experiences do not create sufficient value-in-use, or cause users to feel worse off after using the service and interacting with the services providers, the users may attain low value perceptions of the quality of the service, which may push users to switch services (Bansal et al., 2005). Low service quality experienced during the service processes can thus function as a push factor driving people to switch services, as users have become accustomed to personalized services offering consistent quality (Singh, 2019). The occurrence of low service quality does not have to be a prolonged incident either, since users are quick to switch services if they become frustrated with the service and its quality, even if the incident is temporary (Salo & Makkonen, 2018). These negative service experiences that co-destroy value may affect the future expectations for service experiences in users as well, especially in mobile service applications, causing users to be pushed away from using the application in the future (Newman et al., 2018).

During the service process experience, the pull factors causing users to switch services may be formed through comprehensive service experiences. The users perceive these comprehensive service experiences when they evaluate the alternative services, which can appear to successfully meet their unique requirements, which may not be fulfilled in their current service channel. The alternative comprehensive service experiences thus do not only fulfil the utilitarian needs of the users but can also meet the user requirements of emotionally engaging service experiences. (Singh, 2019.)

However, the service process experiences can also anchor users to their current services through past experiences of the service processes, which are recognized as mooring factors by Bansal et al. (2005, pp. 102). The users may be more hesitant to switch services if they have experienced superior service process experiences during prior service uses (Singh, 2019). However, if users have previously experienced successful service switching, they may be more open to engage in switching behaviour. Conversely, if the previous service switching had been unsuccessful, the switching behaviour of the users may be inhibited due to resource loss incurred by the switching costs. (Hsieh et al., 2012.)

5.3.3 Goals and outcomes reflected in switching behaviour

The goals and outcomes driving the value formation processes of the users also impact the value formation (Edvardsson et al., 2011). The fulfilment of the utilitarian and hedonic motivations to use the service can support value co-creation, as they also drive the interaction and resource integration pro-cesses of the users (Tuunanen et al., 2010). By meeting the utilitarian motivations to use the service, the users can derive beneficial use from the service and become better off as a result as they meet their desired outcomes. The fulfilment of hedonic motivations can result in enjoyable service experience outcomes, where the hedonic value drivers focus on the engaging service activities and features, such as interaction, supporting value co-creation. (Tuunanen et al., 2019b.) However, if these goals cannot be met, value may be co-destroyed due to poorly managed interaction (Grönroos & Voima, 2013). The goals and motivations to use the service may not be inherently constructive as well, leading to value co-destruction. Users and

service providers may seek to attain more resources and one-sided gains at the expense of other service participants, leading to value co-destruction for the others, as value is co-created at their expense. (Vartiainen & Tuunanen, 2016.)

Negative service experiences and unsuccessful satisfaction of the expectations of the users may push users from the service, as the users are not able to attain their desired outcomes and goals by using the service (Bansal et al., 2005). If the services are difficult to use or do not meet the unique expectations, the usability and enjoyment derived from service use is hindered. Thus, the users may be pushed to switch due to negative service experiences to avoid them in the future. (Newman et al., 2018.)

The possibility to attain their goals through using alternative services can function as a pull factor. The users may perceive the alternative services to be easier to use, and also more useful for attaining their desired goals (Hsieh et al., 2012). In retail service research, the utilitarian motivation driving the user behaviour is frequently observed. However, the user may also be driven by their hedonic motivations and goals to attain enjoyable service experiences as well through retail services. (Singh, 2019.) Besides being attracted to alternative services through the possibilities to attain their utilitarian goals for beneficial service use, the users may also be pulled to alternative services by their intrinsic, hedonic motivations and the possibilities to experience enjoyable service experiences through the alternative service (Hsieh et al., 2012).

Service switching costs have been commonly defined as mooring factors in various contexts, such as previously described personal switching costs and participation costs. Bansal and Taylor (1999, pp. 203) described these abstract and complex switching costs as difficulties of executing the switching behaviour. These difficulties encompass the individual, social, contextual, and emotional switching costs associated with service use, for example, which create disutility for the users and inhibit their switching behaviour (Bansal & Taylor, 1999). Viswanathan (2005, pp. 485) has also defined that these switching costs can inhibit the switching behaviour of the users, as they may not be able to fully attain their desired outcomes. However, in mobile service application contexts, service switching costs may be lower compared to other service channel switching costs. This is due to the abundance of substituting services, where users can fulfil their goals due to the prevalent service convenience of the mobile service applications. However, if the users are dependant of utilizing their personal data to attain their goals, they may be more hesitant to switch since the service applications may not transfer this personal data to other applications that are external to the particular service channel. (Salo & Makkonen, 2018.)

In summary, service switching behaviour often stems from critical incidents through these various factors during service experiences, which may be positive or negative, impacting the continuance of service use. These critical incidents represent the actual experiences as perceived by the users, and their behaviour resulting from these incidents, which may cause them to switch services. (Kari et al., 2019.) This makes critical incident technique, introduced by Flanagan (1954), very appealing to utilize in this research context to answer the research questions

of this thesis. The following chapter introducing qualitative research methodology used in this thesis will aim to answer these research questions through an online survey.

6 RESEARCH METHODOLOGY

This chapter presents the objectives for the research and the chosen method of conducting the research and analysis. First the focus and motivation of the research are stated with the central research questions. The chapter proceeds with presenting the chosen qualitative research method of using the critical incident technique through semi-structured online questionnaire to collect data while examining the associated benefits and challenges of the chosen research methodology. This subsection is followed with the description of the data collection process and the construction and distribution of the questionnaire using Webropol 3.0 online survey tool, concluding with the presentation of demographic information of the respondents. Next, the data analysis process is presented through content analysis to answer the research questions. This chapter also presents how the COVID-19 pandemic had influenced the choice of the selected research method.

6.1 Research objectives

The research objective of this thesis is to examine the significant incidents of retail service users that impact their service switching behaviour. This thesis focuses especially on the service switching behaviour where the users have switched from traditional retail services, such as physical stores, to digital and mobile services. In retail services, the impact of the integrated service channels upon the user experience can be clearly examined, as different retail service channels can provide interconnected yet clearly distinguishable service experiences to the users, for example the user may utilize mobile services within physical grocery stores to seek out information of the products.

Verhoef et al. (2017, pp. 11) note that these omnichannel services can create comprehensive service experiences when the users interact with physical services while also utilizing digital and mobile services. The user experience can be improved significantly through the integration of these physical, digital, and

mobile service channels, where the user utilizes the physical stores while being connected to the digital and mobile retail services. This creates valuable information for service providers regarding how the users interact with services and how the services could be targeted to guide the service experiences of the users for improved value formation, such as finalized purchases and sustained connection to the service. (Verhoef et al., 2017.)

While the retail service users are able to utilize several service channels such as traditional stores and digital service channels, as stated as well by Oh and Teo (2010, pp. 41), the various service channels can interfere with each other and lead to decreased value formation processes if the users switch the service channels. Lemon and Verhoef (2016, pp. 80) note that while digital and mobile services can improve the service experiences of the user, the different service channels may also compete for users with each other. The digital and mobile retail service channels can interfere with the physical retail service channels, such as stores and markets, when users switch services and conduct purchases through the digital and mobile service channels, for example (Newman et al., 2018). While the competitiveness for the users within the different service channels is concerning for the service providers, Bitner and Meuter (2000, pp. 139) have brought up that the users also began to pay more attention towards their service experiences as technologies became more and more common among services.

As noted in an earlier chapter concerning the service switching behaviour of the user, the more recent users as well pay increasingly significant attention towards their service experiences. The users expect convenient and satisfactory service in every service channel that they have chosen to use, which can be numerous, which also enables them to switch services easily between different service channels (Oh & Teo, 2010; Zhou, 2011). Furthermore, as Smith (2013, pp. 1894) noted, the user can switch services if the service experience has led to value co-destruction. However, the service experience does not have to be significantly negative or lead to value co-destruction to facilitate service switching behaviour in the user.

In the previous chapter outlining the relevant prior research and theoretical frameworks, particularly the value formation in consumer information systems after Tuunanen et al. (2010, pp. 52) and the push-pull-mooring framework for service switching behaviour after Bansal et al. (2005, pp. 101), the critical service experience incidents that have led to co-destroyed value or provision of alternative value co-creation opportunities can enforce service switching behaviour of the user. Edvardsson and Roos (2001, pp. 253) state that a single memorable service experience incident that influences the user can be perceived to be notably negative, or positive, which are defined as critical incidents because they are critical for the service experience. These incidents of significant negative or positive service experiences can thus encourage the user to switch the services, even if the service experience was a singular, exceptional incident (Salo & Frank, 2017).

Although digital services have become pervasive in our everyday lives, even within retail service context, where the mobile retail services have become increasingly popular, there is a gap in research that focuses on digital and mobile

retail services, as pointed out by Newman et al. (2018, pp. 220). Furthermore, as critical service experiences are significant for the users and can affect their service switching behaviour, it is important to examine the user perspectives and behaviours regarding these critical incidents after the users have experienced them within omnichannel retail service context. As Salo and Frank (2017, pp. 2) note, the critical incidents the users have experienced are significant for the users, but also for the service providers as well since they can have positive or negative impacts to the context-sensitive and interactive relationship between the users and service providers. Gogan, McLaughlin and Thomas (2014, pp. 12) further state that utilizing critical incidents in research methodology can assist the exploration of the individual service user behaviours that have resulted in service switching, which in turn can provide important insights for the theories concerning productive and inefficient service and system participation for information systems research from the point of view of the user.

The user perspective is highly valuable when examining their service experiences that have led to service switching behaviour. As presented earlier in chapter three of this thesis, concerning value formation in digital services, Grönroos and Voima (2013, pp. 142) have presented that the influential service experience of the user, which is otherwise closed off from the service providers without sufficient interaction (Figure 1), is not only very context-sensitive, but also affecting their future expectations and goals for the service experiences. As Finnish people are active users of digital retail service according to OSF (2019), where 90% of the Finnish people between the ages 16 to 55 had utilized digital retail services within the year of the research in question, focusing on the critical retail service experiences of the Finnish users is attractive, as the Finnish population is well-acquainted to pervasive digital services even within the retail context.

In order to address the research objective of this thesis, which is to examine retail service switching behaviour of the user through their experienced critical incidents, this thesis utilizes one primary question and two supplementary questions that support the primary question. The primary research question is:

- What critical incidents have users experienced during retail service use that have caused them to switch retail services from traditional service to alternative digital and mobile retail service channels?

This question concerns the issue of what significant user experiences the users perceive to be critical during their service-use experiences. The goal is to explore the critical incidents that have caused the users to switch from traditional retail services, such as stores and markets, to digital service channels such as online stores and services or mobile applications, which may be provided by the same service provider or its competitor. The primary research question is further supported with two supplementary research questions that help prioritize the research focus towards service switching behaviour of the users and the push and pull factors affecting their switching behaviour. These supplementary questions are:

- What pushes users to switch from traditional retail service channels during critical incidents?
- What pulls users to switch to alternative digital and mobile retail service channels during critical incidents?

The first supplementary research question examines the significant negative service experiences, as perceived by the users, which push them to switch services from traditional to digital and mobile retail services. The second supplementary question aims to examine the positive service attributes and perceptions of the users concerning the positive value formation prospects of the alternative digital services that pull users to switch from traditional retail services from the point of view of the users.

In summary, the research scope of this thesis concerns the retail service switching behaviours of the adult Finnish users where they have switched from traditional retail services, such as grocery stores, to digital and mobile services due to critical service experience incidents. Focusing on retail context gives a broad enough research area to examine the comprehensive and context-sensitive service experiences the users have when they utilize traditional, mobile, and digital service systems and service channels, often even at the same time, within the Finnish retail services. The research scope of this thesis will also focus on examining the push and pull factors affecting the service switching behaviour of the user in order to prioritize the factors that can lead to realized service switching behaviour. The inclusion of the mooring factors would widen the research scope by including the examination of the factors that have caused the users to continue service use.

In order to answer the research questions with the focus of the retail service user experiences during service switching, the critical incident technique is applied to qualitative semi-structured online questionnaire in order to discover the user narratives of the influential service experiences that have resulted in actualized service switching behaviour from the user point of view. The following subsection will examine the qualitative research method utilizing the critical service experience incidents.

6.2 Research method

In order to approach the research objective of examining context-sensitive critical service experience incidents that have led to service switching behaviours, and answer the research questions, this thesis will utilize qualitative research method with the critical incident technique. Qualitative methodology enables the research to concentrate on the context-sensitive circumstances concerning the research focus as noted by Salo and Makkonen (2018, pp. 387). Salo and Makkonen (2018, pp. 389) also note that utilizing qualitative methodology helps avoid unnecessary speculation of the possible experiences the users may have had, which may not reflect their actual experiences that have led to service switching. Salo,

Makkonen and Hekkala (2020, pp. 11) further emphasize that qualitative research methods can yield rich and detailed insights of the context-sensitive service experiences the users have actually experienced. This makes the use of qualitative research methodology appealing for the research objectives of this thesis, which is to examine the actual service experiences of the everyday user that have caused them to switch retail services. The critical incident technique utilized through a qualitative research methodology can thus be a valuable method to examine the unique positive or negative experiences the users have had with services (Gogan et al., 2014; Salo & Frank, 2017).

6.2.1 The critical incident technique

Bitner et al. (1990, pp. 73) have highlighted the suitability of the critical incident technique when examining the positive and negative service experiences, further elaborating that the critical incident technique is particularly suitable for explaining or describing the research phenomenon in question regarding the nature of the service experience. Flanagan (1954, pp. 330), who introduced the critical incident technique, describes that the critical incident technique focuses on the recognition of the human behaviours, where they are collected, analysed, and classified to examine practical issues. While the critical incident technique has its origins in psychology, as used by Flanagan (1954), the research technique has been utilized in diverse research disciplines, particularly service research (Gremler, 2004). Keaveney (1995, pp. 72), for example, applied the critical incident technique when examining service customers and the causes behind their service switching process when switching from one service provider firm to another, focusing particularly on the customer perceptions that took place during service encounters. The critical incident technique has also been utilized when examining the digital services, although within the information systems the research focusing on the critical incidents and the consequent behavioural action of the user that accounts for their contextual factors is lacking (Salo & Frank, 2017).

In order to utilize the critical incident technique to examine the actual context-sensitive service experiences the user has had that have led to service switching behaviour, Gremler (2004, pp. 66-70) describes that the general method of using the technique is to utilize the narratives of the users describing the incidents that they think were critical for them. These narratives can be attained from a story told by the service user regarding their significant service experiences, can be an effective tool to discover insights and details of the service experiences of the service users that may not be attained with other qualitative methods alone. The user narratives can be particularly effective when exploring the service experiences the users have had, since the users are allowed to describe their experiences through their own words, which present valuable insights into the phenomenon. The users themselves identify the service incidents in their narratives that are very influential for them and critical for the service experience, which makes the critical incident technique as a qualitative method practical for exploring the user point of view in service experiences while accounting for the

contextual factors that have impacted the user during service experiences. (Gremler, 2004.)

An incident can be defined as a sufficiently conclusive activity of the human individual that can be utilized to draw conclusions and expectations for future actions. A critical incident can thereby either support this action by being a positive incident or hinder the action through a negative incident. (Bitner, Booms & Tetreault, 1990.) A service experience incident, which can also be considered as interaction incidents, can be considered critical if it is perceived to be remarkably positive or negative by the user (Edvardsson & Roos, 2001). In the context of information systems research, Salo and Frank (2017, pp. 2) highlight that even the singular critical service experience incidents can influence the user and their perceptions of the digital or mobile service and their providers, which can affect their interaction relationship with the service providers significantly. The notable negative service experience incidents may lead to service switching behaviour, while the incidents that the users regard as remarkably positive can encourage the service utilization (Serenko & Turel, 2010).

For this thesis and its research context, the critical incident is defined as an actual experience the user has had when using retail services in physical retail service environments, stores, which has caused the user to switch to use alternative retail services, digital online stores, and mobile retail applications. The critical incident may be either a negative or positive service-use experience to account for the multifaceted nature of unique service experiences for each user, which are dependant of situational factors influencing the service experiences.

6.2.2 Benefits and challenges of critical incident technique

Besides being a flexible research method, the critical incident technique has other appealing attributes. It is a method that allows the researcher to understand the research phenomenon from the respondent viewpoint through their own words, as stated by Gremler (2004, pp. 66). This enables the respondents to narrate their most relevant and memorable critical incidents with relative ease (Salo & Frank, 2017). Salo et al. (2020, pp. 11) also note that by using the critical incident technique and unique user narratives, the technique allows the respondent to focus on the most relevant and critical incidents, instead of asking them to recall other ordinary incidents that are of no interest, and the research does not depend on hypothetical situations where the incidents could have possibly occurred. By giving the respondents the freedom to choose the incidents that were critical for their service experiences, the respondent narratives can relay contextual information of these incidents that actually happened and subsequently lead to the realized behavioural changes that were significant to the users themselves, such as service switching (Bott & Tourish, 2016).

The critical incident technique also has drawbacks that need to be considered. The respondents may not be used to writing detailed descriptions of the critical service experience incidents and may have trouble recalling them. If the incident happened long ago, and the memory of the incident has become fuzzy, the respondent may reinterpret the incident less truthfully. These recall and

reinterpretations biases of the respondent can create less accurate narratives of the critical incidents, which in turn can hinder the reliability and validity of the research. (Gremler, 2004.) Salo and Frank (2017, pp. 9) approached these issues with the design of the online questionnaire, where the respondents were asked to take their time recalling the incident and then describe it with as much detail as they could, which would also assist the following data analysis phase of the research. Flanagan (1954, pp. 341) also noted that the relatively recent critical incidents are still fairly truthful in the memory of the respondent. Bott and Tourish (2016, pp. 18) further elaborate that the critical incidents that the respondent is asked to describe should have taken place within the past year, in order to mitigate recall bias.

6.2.3 Use of critical incident technique in semi-structured questionnaire

Bott and Tourish (2016, pp. 6) note that the critical incident technique can be applied through different research methodologies in different research contexts. Instead of rigid rules, Gremler (2004, pp. 81-82) describes that the critical incident technique can be regarded to consist of flexible guidelines that can be adapted to the research focus. The critical incident technique has often been combined with interviews or questionnaires, as Serenko and Turel (2010, pp. 185) note that both methods can be utilized to gather similar results, if the respondents can be motivated to follow the given guidelines and answer meticulously to what is asked in their own words, without diverging too far from the topic.

At the time of conducting the research, the World Health Organization (WHO, 2020) had issued public advice to avoid close prolonged contact with other people due to the coronavirus pandemic, COVID-19. This advice also contributed to the choice of using online questionnaire as a research method with the critical incident technique, but questionnaires also have attributes that made them more applicable in the context of this thesis. Questionnaires can be particularly useful when the research aims to explore user perceptions and contextual factors from a larger population of respondents compared to interviews, as the questionnaires can be distributed through online tools where the respondents can answer at their own leisure, instead restricting the number of respondents due to time constraints (Rowley, 2014). By enabling the respondents to answer the questionnaire by themselves, the research can also avoid the typical constraints associated with the interview methods, even though the interviews could have been arranged remotely through digital tools, such as Skype or Zoom. Besides time constraints, Myers and Newman (2007, pp. 5) also describe the Hawthorne effect, which can affect the reliability of the data. The interviewer may affect the responses through their presence involuntarily since they are a part of the interactive interview situation, which can be intrusive to the interviewee (Myers & Newman, 2007).

The qualitative semi-structured online questionnaire that combines open-ended and closed questions and utilizes the critical incident technique is very suitable for the research objectives of this thesis, which is to examine the critical incidents that have caused the adult Finnish users to switch from traditional retail

services to digital and mobile services by focusing upon the push and pull factors affecting their switching behaviour. When approaching the data collection phase of the research for this thesis, Gremler (2004, pp. 80) emphasizes that the data collection should aim for gathering as much detail of the critical incidents as possible from the respondents, whether the method is a questionnaire, interview, direct observation, or something else. Besides being able to collect detailed responses, the data collection should also remain focused on the research objectives. Salo and Makkonen (2018, pp. 390) for example maintained their research focus by asking the respondents to use concrete examples when describing their critical mobile application switching incidents, which was followed with questions asking for further details regarding these incidents, such as where they switched from, where they switched to, and why they had switched.

Bott and Tourish (2016, pp. 14) further note that the research utilizing the critical incident technique does not have to limit itself to gather narratives that concern exclusively negative or positive critical incidents. Allowing the respondents to describe either positive, or negative incidents enables them to uncover a wide range of contextual information of the critical incident from their own perspectives that actually happened (Bott & Tourish, 2016). By using open-ended questions, the respondents can use their own words when describing their critical service experience incidents, while closed questions where the respondents can choose their answer from a categorized and numbered spectrum, such as 5-point Likert scale (Rowley, 2014). Online questionnaires can be utilized to gather rich information through user narratives with the critical incident technique, for example as Salo et al. (2020, pp. 11-12) had done when examining negative critical incidents the users had experienced when using personal mobile applications, and how they coped after these incidents had happened. Salo and Frank (2017, pp. 9) had also utilized online questionnaires with the critical incident technique to examine how the situational contextual factors during the critical incidents affected the user behaviours after the incident in mobile services. Taking account the timing for the data collection, which was during the holiday season in 2020, the semi-structured online questionnaire was chosen as the most practical method for the research.

For this research, the use of the summarizing framework (Table 3) regarding the value formation in consumer information systems and the push-pull-mooring framework concerning service switching behaviour during the data collection phase as a tool in the qualitative semi-structured online questionnaire enables the research to stay focused on the research objectives. The application of the framework (Table 3) to the questionnaire supports forming the structure for the questionnaire to examine what critical incidents have caused the adult Finnish users to switch from traditional to digital and mobile retail services, and what attractive pull factors or more negative push factors had affected their ensuing switching behaviours during the critical incidents from the user point of view. This data collection process through a semi-structured online questionnaire utilizing the critical incident technique is described in detail in the following subsection.

6.3 Collection of data

The semi-structured online questionnaire was conducted in Finnish through Webropol 3.0 online survey tool. The questionnaire form is included in this thesis in Finnish in Appendix 1. The questionnaire was open for responses from December 17th, 2020, to January 17th, 2021. In order to gather answers from the desired target population, Finnish people between the ages of 18 and 55, the invitation to participate in the questionnaire was distributed through the communications specialist of the faculty of Information Technology of University of Jyväskylä, who sent the invitation via email to the students of the faculty. The invitation was distributed in Finnish. The invitation for participation contained information regarding the purpose of the questionnaire and the thesis, containing a brief summary of the focus of the research topic with the title of the thesis and brief introductions of the supervisors. The faculty of the university was also stated.

The invitation also described the target population of the research, Finnish people who have had even one experience of switching retail services from traditional service to digital and mobile services, emphasizing that answering was fully voluntary. The invitation also included a voluntary opportunity to receive one digital movie ticket to a Finnish movie theatre chain Finnkino through email within seven days of submitting the response if the responses answered the questions and followed the given guidelines. The invitation also contained information how the responses would be confidentially handled and reported in the final thesis without submitting response data to any third parties. The invitation finally stated that more information, including the required research notification and data privacy notice (Appendix 2) could be accessed by opening the link to the questionnaire. The respondents were also encouraged to send the link to the questionnaire to anyone who could be interested to answer the questionnaire.

6.3.1 Constructing and testing semi-structured online questionnaire

The published semi-structured online questionnaire was formulated following the guidelines from various studies that utilized the critical incident technique, particularly with the questionnaire method. Wording the questionnaire carefully and appropriately is highly important in order to attain the research objectives, which can be facilitated by giving the respondents clear instructions that can encourage them to share their narratives (Gremler, 2004). The order of the questions should also be carefully considered, as the earlier questions can help establish the context of the subject for the respondent (Rowley, 2014). Bitner et al. (1990, pp. 74) asked the respondents to recall especially significant interactions with the service and its personnel and describe these critical incidents in detail. Keaveney (1995, pp. 72) incorporated the research focus to the questionnaire by asking the respondents to recall the last time when they had switched services as a customer from one service to another service.

By collecting demographic information of the respondents and the services they use the research can collect contextual details that may not be brought up in the open-ended questions otherwise (Salo et al., 2020). Keaveney (1995, pp. 73) notes that further details of the service switching incident can also be attained by asking probing questions, for example by asking them to describe what had happened and how they felt during the incident. The open-ended questions can function as a way to enable the respondents to de-scribe their experienced critical service experience incidents in more detail, enriching their narratives (Salo & Frank, 2017).

Before the questionnaire was published, the questions and the structure of the questionnaire were tested in Finnish using 10 testers through a prototype version of the questionnaire utilizing Webropol 3.0. Three tests were conducted using a think-aloud technique, where the respondent taking the test questionnaire read the questions out loud and also thought out loud in their own words how they understood the questions, and how they felt while answering. They could also vocalize any thoughts that came to mind relating to the questionnaire while answering. While the three respondents participated in the think-aloud tests, the researcher took notes of their observations and how they understood the questionnaire to uncover confusing or conflicting questions, words, or structural factors of the questionnaire, such as the amount and length of questions, the order of the questions, and grammatical errors that had been missed. The think-aloud tests were conducted in-person, while respecting the WHO (2020) COVID-19 guidelines with sufficient distance, masks, and ventilation.

The test results, and particularly the results from the think-aloud tests, were very helpful in understanding how the respondents perceived the questions. This test data was used to supplement and modify original questionnaire, such as using different wordings that were easier to understand in Finnish and adjusting the questionnaire structure to improve its logical progression.

6.3.2 Structure of published semi-structured online questionnaire

The semi-structured questionnaire (Appendix 1) contained 17 questions and three major sections: an introduction, a section for demographic questions, and a section containing mostly open-ended questions. The introduction contained information of the research, its objectives and purpose, the target population, affiliation with the Faculty of Information Technology in University of Jyväskylä, and the estimated duration of the questionnaire. A short and very general example was given to describe the switching process in order to give a more concrete description of the research objective without influencing the responses. The introduction also described how the respondent could receive a free digital movie ticket by following the questionnaire guidelines, and when they would receive it. The respondents were encouraged to take their time and answer without hurry, and to share the questionnaire link to other potential respondents, in order to attain responses from a wider population that could not have been reached via the university mailing list alone.

The introduction page also noted how long the questionnaire page would be open on Webropol 3.0 and presented a link to the mandatory research notification and data privacy notice (Appendix 2) that was written for the research following the guidelines given by University of Jyväskylä. Finally, the introduction presented the con-tact details, thanking the respondent for their interest, and included the first question asking if the respondent would accept their responses to be used in the research. If the respondent chose "I do not accept that my answers are used in the research", the questionnaire page would close. If they chose "I do accept that my answers are used in the research" the respondent could access the questions.

The second section concerning the demographic questions contained closed questions, where the respondent could choose from a single choice for each question. To respect the data privacy of the respondents, only the essential demographic information was collected, which would assist the anonymization process later. This section consisted of four questions that followed the OSF (2019) structure and wording by first presenting the second question asking the respondent to report their gender, where the respondent could choose between "woman", "man", "other" and "I do not wish to say". The third question concerned their age group, where the respondent could choose a matching age group organized into five-year groupings. The fourth question asked for their current place of residence ranging from "The metropolitan area", "Urban municipality (population at least 15,000)", "Municipality (population between 4,000 and 15,000)", "Rural municipality", "I am currently living abroad", and "I have not lived in Finland in the last six months". Finally, the respondent could state their nationality in the fifth question from "Finnish", "Dual citizenship", and "Other", where in the last option the respondent could have written their nationality. The utilization of the OSF (2019) categories helped to ensure that only the essential, general descriptive demographic categories and information were collected, and unnecessary demographic categorization was excluded.

The third section opened with a short description for the section, asking the respondent to recall significant and memorable incidents with retail services that they had had during the last six months, which had caused them to switch from traditional physical stores to digital and mobile retail services. This introduction also gave a short and general example of a service switching process in case the respondent had forgotten the example that was given in the first section of the questionnaire. The respondent was again encouraged to use their own words and as much detail as possible, and to take their time while answering. The sixth question of the questionnaire asked the respondent to choose one or more retail services that they had utilized in the past six months ranging from physical, cyber-physical, digital, and mobile retail services. The respondent was also able to write additional services that they had used in their own words by choosing "Other". This aimed to give the respondent concrete context of the retail services.

Question seven asked "Which traditional retail service did you switch from? Which digital or mobile retail service did you switch to?". The respondent was also asked to state the names of the retail services if possible. The eighth question

was an open-ended question asking "What was the reason you utilized that traditional store before switching services?", further increasing concrete details of the service experience incident before the incident had happened. The ninth question further asked "What made you switch from a traditional store to a digital or mobile service? Please describe in your own words: What happened during when you switched services?". This question helped the respondent to orientate towards describing their critical incidents, which were examined in the following questions to clarify their narratives. In order to remain focused on the research objectives of this thesis, questions ten through thirteen utilized the summarizing framework for value formation and service switching behaviour (Table 3) and how the push and pull factors affected their value formation processes during the critical incidents that impacted their switching intention and lead to actualized switching behaviour.

The tenth question focused on the pull factors affecting the value formation processes, asking the respondents to recall whether the digital or mobile retail service seemed attractive to switch to, and to choose one or more answers from eight options. Six of these options reflected the six pull factors affecting the value formation presented in Table 3. The seventh option included an answer choice depicting that the digital or mobile retail service seemed more attractive due to COVID-19, and the eighth option, "Other", allowed the respondents to use their own words to describe how the alternative retail service pulled them to switch. The eleventh question asked the respondents to elaborate upon their answers to the prior question by asking them to describe in as much detail as possible how they perceived the digital or mobile retail service to attract them to switch from the traditional store, encouraging them to use their earlier answers as a support for their thinking.

Question twelve concerned the push factors affecting the value formation processes, corresponding to question ten and using the same summarizing framework (Table 3). The question asked the respondents to recall if there was something in traditional retail service that had encouraged the respondent to switch to mobile or digital service. The respondent could choose one or more answers from eight options, six of which reflected the push factors affecting the value formation as presented in Table 3. The seventh option also asked whether the respondent was encouraged to switch from traditional retail service due to COVID-19, and the eighth option, "Other", allowed the respondent to describe how the traditional retail service had pushed them to switch to digital or mobile services in their own words. Question thirteen, like question eleven, asked the respondent to describe further in as much detail as possible how the traditional retail service encouraged them to switch to digital or mobile services, again encouraging them to use their answers given in the prior question to support their thinking.

Questions fourteen and fifteen utilized open-ended questions. Question fourteen asked the respondents to describe in their own words what had made the service switching incident memorable or significant to them, giving the respondents an opportunity to further describe their narratives relating to their

earlier answers. Question fifteen then asked how the respondents felt when switching services to address their emotional contexts and perceptions with additional details through their own words.

The sixteenth question was a closed 5-point Likert scale question asking the respondent how negative or positive they viewed the incident, when 1 indicated that the switching was regarded as an extremely negative incident, 3 that the incident was neutral, and 5 that the switching was regarded as an extremely positive incident. This question further affirmed whether the respondent regarded the critical incident to be more negative, neutral, or positive.

The final, seventeenth question, asked whether the respondent would like to receive a digital movie ticket as a thanks for taking the questionnaire. This question was optional, allowing the respondent to write their email address to a text field if they wished to obtain one movie ticket, but they were also able to leave the question empty. By pressing the "Submit" button, the responses were recorded, and the respondent was directed to the closing page thanking the respondent for their interest towards the questionnaire. This last question was removed in Webropol 3.0 when collecting the responses to delete the sensitive personal data when the last movie ticked was sent.

6.3.3 Demographic information of respondents

The online questionnaire conducted through Webropol 3.0 gained a total of 75 answers, of which 59 answers were included for analysis. Five answers were immediately discarded when gathering the sample due to being empty or spam answers. These answers did not receive a digital movie ticket. The remaining eleven answers were excluded from the research because the responses did not describe critical service switching incidents that met the criteria of inclusion for this research, which is described in the following subsection examining data analysis. Table 4 describes the information of the 59 respondents and their gender groups, age groups, current places of residence, and nationality groups following the OSF (2019) guidelines.

TABLE 4 Demographic information of the respondents

Category	**Category groups**	**n**	%
Gender	Female	33	55,93
	Male	26	44,07
	Other	0	0
	Would rather not say	0	0
Age group	18-24	15	25,24
	25-34	32	54,24
	35-44	4	6,78
	45-54	5	8,47
	55-64	2	3.39
	65-74	1	1,70
	75-84	0	0
	85 or older	0	0
Current place of residence	The metropolitan area	16	27,12
	Urban municipality (population at least 15,000)	38	64,41
	Municipality (population between 4,000 and 15,000)	0	0
	Rural municipality	1	1,69
	I am currently living abroad	4	6,78
	I have not lived in Finland in the last six months	0	0
Nationality	Finnish	59	100
	Dual citizenship	0	0
	Other	0	0

The demographic information collected from question six, where the respondents were asked to select retail services ranging from traditional stores to cyber-physical, digital, and mobile services that they had used in the last six months shows how the respondents had utilized the retail services at the time of data collection. The respondents were also able to select "Other", and report what retail services they had used that were not listed in the question. This information can be examined in Table 5.

TABLE 5 Utilized retail services of the respondents

	Retail service	n	%
Traditional stores	S Group physical stores (Prisma, S-Market, etc.)	55	93,22
	Kesko Group physical stores (Citymarket, K-Market, etc.)	50	84,75
	Lidl	39	66,10
	Tokmanni	31	52,54
	Minimani	15	25,42
	HalpaHalli	4	6,78
Cyber-physical services	Handheld barcode scanner	7	11,86
	Smart shopping cart (e.g., Smartcart)	0	0
Mobile retail service applications	S-mobiili mobile application	23	38,98
	Lidl Plus mobile application	14	23,73
	K-ruoka mobile application	12	20,34
Digital retail services	Other online service (Fiksuruoka, Kauppahalli24, home delivery etc.)	26	44,07
	S Group online store (Foodie.fi)	23	38,98
	Kesko Corporation online store (K-Ruoka, K-RuokaPro, etc.)	13	22,03
Other	Other	11	18,64

The responses were collected to a remote, private, and password-protected network U-drive with a secure VPN client provided by University of Jyväskylä as a Microsoft Excel file from Webropol 3.0 once the questionnaire closed to protect the data privacy of the respondents. The email addresses were permanently removed in Webropol 3.0 after sending the digital movie tickets and before gathering the report for qualitative content analysis, which was conducted using Microsoft Word and Excel software. The data analysis will be described in the following subsection.

6.4 Data analysis

To fulfil the research objectives and maintain the quality of the research, the criteria for including and excluding responses and disclosed critical incidents from respondent narratives should be defined before analysing the data (Gremler, 2004). Bitner et al. (1990, pp. 73) defined that in order for an incident to be included in their research, it had to meet set criteria. The distinct incident, which was either extremely positive or negative from the respondent viewpoint, had to concern the interaction between a customer and a service employee, and also described well enough so that the incident could be envisioned by the researchers (Bitner et al., 1990). Attaining sufficient descriptions of the critical incidents was also a criterion for including the critical incidents in the research for Salo et al. (2020, pp. 12). Gogan et al. (2014, pp. 11) note that the respondent narratives concerning the critical incident that can contribute beneficially for the research

should report a clear narrative of the incidents that also describe how the incident had happened, and what was its outcome, in a coherent manner to understand respondent actions and perceptions.

For this thesis, the criteria for including the respondent reports for analysis required that the respondent had described a distinct and significant critical incident in sufficient detail, even if they evaluated the incident to be neutral from their viewpoint in question sixteen of the questionnaire. The inclusion of the incidents that were experienced to be neutral by the respondents can be justified by the fact that the respondents had reported the incidents to be significant and memorable to them in question fourteen, describing why they perceived the service switching incident to be memorable or significant.

The respondents also had to have answered all of the other questions in detail as well to be included in the research. Conversely, responses that stated that the incident was not significant or memorable to them, which had also been evaluated to be neutral in question sixteen, were discarded. Responses that reported in question fourteen that the incident was not significant or memorable yet evaluated the incident to be extremely positive or negative, were included on the condition that they had given detailed reports of their critical switching incidents. The responses were also omitted from the research if they did not report actual switching incidents from a traditional retail service to a digital or mobile retail service, which could be affirmed through question seven. The reports on question seven helped determine what traditional service they had switched from, and what digital or mobile service they had switched to. Reports that depicted switching incidents occurring exclusively between different traditional services or among various digital services were thus excluded.

6.4.1 Content analysis and critical incident technique

The data analysis process of this thesis utilizes content analysis of the critical incident reports that have been included in the research, which aims to classify the critical incident factors through their prevalence and configurations in the narrative reports into categories through coding (Gremler, 2004). Hsieh and Shannon (2005, pp. 1278) define that content analysis is an adaptable and qualitative systematic analysis method that suits analysing text-based data, centring the contextual information of the text that is collected from the respondent. Content analysis is particularly useful when analysing a lot of information that is communicated through explicit or implicit text, where its purpose is to discover representative categories through coding and the discovery of the schemes within the responses (Hsieh & Shannon, 2005). This can produce valuable insights of the research phenomenon when pursuing the research objectives (Gremler, 2004). Qualitative content analysis technique is often used with the critical incident technique research, where for example Salo and Frank (2017, pp. 11) focused upon the user behaviours after the critical incident had occurred. Similarly, Kari et al. (2019, pp. 627) utilized content analysis in their critical incident research focusing specifically on what critical incidents had affected the user behaviours either positively or negatively.

Content analysis utilized in the critical incident research often follows the guidelines defined by Gremler (2004, pp. 81) as well, where the analysis process follows four major phases. These phases consist of first carefully, and often repeatedly, reading the reports and narratives of the responses to recognize descriptive features of the reported incidents that are recurrent in the responses. Second, the recurrent themes are defined through keywords that are recognized from the responses. Third, the scheme for classification is formulated for categorizing the recurrent themes. Fourth, the researcher defines descriptions for the categories and possible subcategories. (Gremler, 2004.)

Salo et al. (2020, pp. 15-16) also utilized more succinct guidelines for content analysis with the critical incidents. The content analysis process can also be regarded to first recognize comprehensive categories, moving forward to setting up the categories based on the themes that have been discovered from the responses, and then defining a scheme for coding the response data to discover recurrent patterns in the responses (Salo et al., 2020).

The process of coding the responses is important for a successful content analysis, where the coding process sorts a vast amount of text into more comprehensive and descriptive subcategories and categories based on the recurrent descriptive features of the incidents, which can be assisted by theoretical frameworks. The schemes for coding, or classification in other words, can assist the process by acting as a guideline on how to classify the information from all of the included responses into categories. (Hsieh & Shannon, 2005.) These guidelines in turn can help reduce the subjectivity bias of the researcher, as the data is qualitative and easily a subject for misinterpretation, which can increase the reliability of the research (Gremler, 2004).

For example, Salo et al. (2020, pp. 54) formulated a scheme for coding by first reading the responses carefully and marking meaningful words or sentences into a code, which were sorted into subcategories. These subcategories were given illustrative definitions by utilizing the keywords that were discovered from the response data, and further compared to new information that was discovered from the responses to affirm if the subcategories could be disputed or complemented by the new information. The subcategories were revised iteratively to formulate optimized and descriptive categorizations for the critical incidents. (Salo et al., 2020.)

6.4.2 Content analysis process of response data

In this thesis, the content analysis of the response data began by exporting the collected responses sans the optional e-mail addresses from Webropol 3.0 to Microsoft Excel in random order where each question and its corresponding responses were presented in their own sheets. Confidential information that could serve as identifying information, such as names of places of residence, were removed and replaced with brackets containing an indicator of removed data to protect the respondent identities. For example, a removed name of a place of residence was changed into [location]. The resulting data contained large amounts of text, including misspellings, and colloquial expressions typical for Finnish

language. Therefore the analysis process was done in Finnish to avoid possible translation errors, which could have led to misinterpreted results. The resulting coding schemes and descriptions were translated into English with an online dictionary, MOT Kielipalvelu, provided by the library services of the University of Jyväskylä to ensure that the translations could be as concordant as possible between two languages.

The data analysis process followed the four major phases presented by Gremler (2004, pp. 81) in an iterative manner for the critical incidents, push and pull factors, and finally for the emerging mooring factors. Data analysis begun by reading and rereading the responses one row at a time through Microsoft Word and Excel, which repeated throughout the analysis process, as necessary. The critical incident reports and descriptions, consisting of words, sentences and pieces of text were noted in Microsoft Excel with red highlights below the line of the given response to coordinate the analysis notes. Similarly, the push factors were noted with yellow and pull factors with blue highlights. The emerging mooring factors were noted using green highlights. These notes containing recurring themes, descriptions, and features of the critical incidents, push and pull factors, and mooring factors were then coded by identifying the keywords and key sentences that defined the information contained within the responses.

The emerging codes were then organized by comparing the codes to each other and with the recurrent themes. This process was repeated several times for the critical incident, push and pull factor, and emerging mooring factor codes to compare existing codes to any new codes that emerged from repeated reading of the responses. The codes were supplemented, refined, and even discarded during this process when comparing them to each other and the response data where the codes emerged from. The subcategories were then formulated from these codes to sort them based on the recurring and meaningful information contained within the codes, for example describing personal outlooks of the services, and hindrances or benefits of the services. The subcategories were also given preliminary descriptions corresponding to the emerging patterns and themes contained within the codes to assist the analysis process. During this process the theoretical frameworks provided preliminary support for conceptualizing the formations of the subcategories and the following categories.

The subcategories were then sorted under categories based on the recurrent themes and patterns for the critical incidents, push and pull factors, and mooring factors arising from the codes. The subcategories were given refined descriptions based on the key information contained within the codes and the responses. The category descriptions were then defined based on the key information and recurring themes and patterns, which were contained within the subcategory descriptions as well. The aim of defining the category descriptions was to give comprehensive and descriptive information that could summarize the emerging themes and patterns contained in the subcategories and codes.

The content analysis process resulted in four themes, consisting of the critical incidents, push factors, pull factors, and emerging mooring factors, which together contain 502 codes, 72 subcategories, and 22 categories for the four

themes. The critical incident coding scheme contains 154 codes, 22 sub-categories, and seven categories. The push factor coding scheme contains 147 codes, 18 subcategories, and five categories. The pull factor coding scheme contains 129 codes, 18 subcategories, and five categories. The emerging mooring factors were also given a coding scheme, resulting in 72 codes, 14 subcategories, and five categories. The results of this content analysis process will be examined in the next section while aiming to form answers for the research objectives of this thesis.

7 RESULTS

This chapter inspects the results from the qualitative content analysis process through text and illustrative tables depicting the categories, subcategories, and codes with the number of occurrences in the data in brackets for each main theme of the critical incidents, and push and pull factors, which are examined in their respective subsections of this chapter. The emerging mooring factors are also included in the results as the fourth subsection, and the final fifth subsection presents additional results that help contextualize in the research context of service switching behaviours in Finnish omnichannel retail service environment.

7.1 Critical incidents leading to service switching behaviour

The results for the first theme examine the reports of significant critical incidents that had led the respondents to switch from traditional retail services, namely stores, to alternative retail services offered through mobile applications and digital service channels. The critical incidents were reportedly created when the respondents visited the traditional retail service locations, where they experienced diverse, memorable service experiences, which caused them to switch to the alternative retail services. While examining the presented critical incidents, it is worthwhile to note that the results depicting critical incident narratives were also influenced by push and pull factors that affected their service switching behaviours, which are presented in their respective subsections in this chapter.

Through content analysis, seven categories were formed as a result to depict the overarching narratives of the experienced critical service experience incidents that caused the respondents to switch services. The reported critical incidents the respondents had experienced when using the traditional retail services in the stores related to the impact of COVID-19 on traditional service experience, changes in respondents' lives, issues of service availability in the traditional service environment, impact of service experience in the traditional service

environment, personal views of the traditional service, awareness of alternative retail services, and attraction of alternative retail services.

7.1.1 Impact of COVID-19 on traditional service experiences

The COVID-19 pandemic emerged from the reports as a critical incident through its impact on the service experiences within the traditional Finnish service locations. This critical incident category is segmented into three subcategories that provide further detail and context on how the COVID-19 pandemic had affected the respondents through the emerging codes. These impacts concern the significant service experiences the respondents had had with the application of the contagion restrictions in the stores, their personal approaches to the COVID-19, and the approaches of the other customers towards COVID-19. These results emerging from the subcategories are examined respectively after Table 6.

TABLE 6 Impact of COVID-19 on traditional service experiences

Impact of COVID-19 on traditional service experiences	**Application of COVID-19 restrictions by stores**	Lack of social distancing 3; Risk of contagion 2; Unenforced mask requirement 2; Unenforced limitation of visiting customers 1; No access to wash hands 1; Running out of hand sanitizer 1
	Personal approach to COVID-19	Avoiding visits to stores 13; Avoiding human contacts 11; Motivation to follow restrictions 5; Avoidance of crowds 4; Strenuous service experience 3; Fear of contagion 3
	Approach of other customers to COVID-19	Unpleasant behaviour 3; Amount of crowds in service location 2; Remarks 1; Monitoring of adherence to restrictions 1

Application of the COVID-19 restrictions to mitigate the risk of contagion for the customers and service personnel in the traditional stores by the stores contributed to the critical service experience incidents in the respondent narratives. The respondents reported that these restrictions had created critical service experience incidents through the lack of enforced social distancing (3) and resulting risk of contagion (2) accompanied with the unenforced mask requirements (2) and limitation of visiting customers (1), along with no access to wash hands (1) and running out of hand sanitizer (1). These critical incidents relating to the application of the COVID-19 restrictions in traditional stores are also reflected in the push factors concerning how the COVID-19 had encouraged the respondents to switch.

The personal approach to COVID-19 of the respondents reflects the significant and memorable emotional responses and inherent attitudes of the respondents towards the COVID-19 and the resulting restrictions. The respondents

reported that they avoided visiting the stores (13) during the COVID-19 pandemic to avoid human contacts (11) and crowds (4), which in turn influenced the other critical incident categories as the respondents were not able to utilize the physical service locations as they usually would have. The respondents also reported that the service experiences were laborious (3) during the pandemic with a sense of fear of contagion (3). The motivation to follow the restrictions (5) also emerged as a critical incident factor through reports depicting how the personal approaches of the respondents towards COVID-19 had encouraged them to switch from traditional retail services to its associated risks to their well-being.

The approach of other customers to COVID-19 also emerged as a critical incident factor relating to the reported unpleasant interaction incidents between the respondents and the other customers. These significant incidents were influenced by the respondents' perceptions and experiences on how the other customers approached the COVID-19 and the related restrictions, reportedly encouraging the respondents to switch services due to the amount of other customers (2) in the stores, creating crowds and unpleasant interaction episodes. These critical incident reports also described how other customers had monitored the adherence of the restrictions (1) of the fellow customers in the stores, which resulted in unpleasant interaction episodes through unwarranted remarks (1). The respondents also reported how unpleasant behaviour (3) relating to the adherence, or a lack thereof, to the COVID-19 restrictions had created memorable experiences that encouraged them to switch, which are explored later in this chapter in the push factor category relating to the pandemic.

7.1.2 Changes in respondents' lives

Reports regarding the personal changes in the lives of the respondents, while not emerging as inherently negative experiences, described how life changing incidents interconnected with the service experiences associated with traditional stores that encouraged them to switch to alternative retail services. This critical incident category describes how the changes in the lives of the respondents had reportedly affected their service experiences in the traditional retail locations, which also overlaps with other critical incident categories relating to service availability and experience issues, which were in turn affected by the critical incidents falling into this category describing how the changes in their lives had encouraged the respondents to switch services. Table 7 depicts in further detail how the changes in the lives of the respondents emerged from the reports through three subcategories, consisting of personal changes, changes in the access to traditional service, and changes in the use of time.

TABLE 7 Changes in respondents' lives

Changes in respondents' lives	**Personal changes**	Lack of energy 4; Lack of time 4; Change of diet 2; Change in purchased product selection 2; Illness 1; Taking care of relatives 1; Hangover 1; Birth of child 1; Changed recipes 1; Increase in the number of purchases 1
	Changes in the access to traditional service	Bad weather 4; Lack of car 4; Lack of time to go to store 4; Working from home 2; Parking fee 1; Change of residence 1; Proximity of retrieval point 1; Searching for parking space 1
	Changes in the use of time	Lack of time to go to store 4; Avoidance of crowds 4; Lack of time to shop 3; Daily hurry 3; Working from home 2; Desire to manage personal time 2; Lack of time to cook 1

One respondent reported that the birth of a child (1) was a significant personal change that caused them to switch to cope by saving available time and energy. Another family-related incident that reported personal changes related to the COVID-19 restriction by looking after relatives (1) by ordering food for them remotely. Other personal changes in the lives of the respondents were reported to be change of diet (2) and changed recipes (1), which in turn contributed to the change in purchased product selection (2). These changes of required products were reportedly difficult to manage through traditional stores, including the increase in the number of purchased products (1), where the necessary products may have not been readily available. Even a momentary lack of available personal resources, such as time (4) and energy (4) due to a temporary change in their well-being, such as illness (1) and hangover (1), also contributed to the other critical incidents, causing them to switch to digital and mobile services.

Changes in the access to traditional service also emerged as a critical incident factor, describing the significant changes of physical relocation to and from the service location, and the changes in the accessibility of the service locations. Respondents reported that due to working from home (2), while following the COVID-19 guidelines, they did not have to make the usual shopping trips, which had previously served as opportunities to visit service locations during these trips. The change of residence (1) also contributed to the restricted access of the service location. The lack of resources to access the physical retail service locations also contributed to the critical incidents, as respondents reported that they could not access the stores due to lack of car (4). Even with a car, the lack of available parking space (1) and additional parking fees (1) had reportedly encouraged the respondents to avoid visiting the stores. The respondents also described lacking time (4) and energy to walk or drive the long distances between service locations, which hindered them from accessing the stores, along with bad weather (4). Another memorable critical incident was reported to be the increased proximity of retrieval points (1) creating opportunities to utilize the digital and mobile services and the postal delivery services.

Changes in the use of time as a critical incident factor impacted many of the other critical incident factors as well, leading the respondents to switch services. These changes in the use of time also partly stem from the COVID-19 pandemic, causing the respondents to work from home (2), which in turn had created changes in the available time to utilize traditional stores. The respondents also had to deal with their daily hurries (3) and other errands, which had left the respondents little time for walking or driving to the stores (4), using the service processes (3) in the retail service locations, and cooking the meals (1). This was reported to waste their personal time, which the respondents wished to manage (2), creating situations influencing their service switching intentions. The respondents also described that the changes in the use of time hindered their preferred visitations to the stores outside of the rush hours (4), again overlapping with the reported critical impacts caused by the COVID-19.

7.1.3 Issues of service availability in traditional service environment

The critical service experience incident category emerging from the issues the respondents had had with the availability of services in the stores concerns the significant experiences that encouraged the respondents to switch in order to attain the desired and required services, products, and selections they needed but could not have attained due to the inadequate availability of services in the stores while visiting them. These critical incidents concerned the contextual experiences based on the inherent perceptions of the respondents towards service visits, and the external impacts of the service environment upon these visits. Table 8 illustrates through three subcategories how the critical incidents emerging from service availability issues could be examined from respondent narratives that concern visiting the service location, availability of products, and availability of selection.

TABLE 8 Issues of service availability in traditional service environment

Issues of service availability in traditional service environment	**Visiting the service location**	Slow visitation 12; Queues 9; Realization of personal values 6; Shopping numerous products 4; Wandering between shelves 4; Bad weather 4; Crowds 4; Long distance 3; Lack of service personnel 2; Big service location 2
	Availability of products	High prices 7; Insufficient product range 6; Poor product range 4; Lack of rare products 3; Online-exclusive availability 3; Sold out product 1; Insufficient product quality 1
	Availability of selection	Limited availability 7; Missing products 6; Difficult availability 5; Slow ordering process to store 3; Waiting for the order to arrive to store 2; Lack of specialized stores 1; Additional service costs 1; Inability to see selection beforehand 1

The critical incident reports describing how the availability issues of service within stores were affected by visiting the service location. The slowness of the

visitations (12) was an evident critical incident factor, often paired with depictions of long queues (9), which were described to be frustrating and exhausting, and how shopping numerous products (4) within the crowded (4) service location was also reported to be a laborious experience. The big service locations (2) as well had led to aimless wandering between shelves (4) and futile searching in stores. The availability of service while visiting the service locations was also negatively affected by the lack of service personnel (2), and the realization of personal values (6), such as shopping for surplus products. The long distances (3) to relocate to the retail service location and bad weather (4) created unpleasant experiences of visiting the stores.

Availability of products as a critical service experience incident factor majorly concerns the lack of available and desired products, reportedly causing the respondents to visit several service locations to meet their needs and spend their personal resources to meet their objectives for using retail services. The respondents reported that they had to switch to alternative retail services due to poor product range (4) and insufficient product quality (1), including sold out products (1) in the stores. These reports also contained narratives where they thought they had wasted resources when visiting traditional stores due to insufficient product ranges (6) and comparatively higher prices (7). The respondents also described that the lack of rare products (3) encouraged them to switch. Another critical incident factor relating to the availability of the products in store locations was the online-exclusive availability (3) of the desired products, which reportedly had increased the awareness of the respondents regarding alternative services to acquire the products they wanted.

The availability of the selection of the desired products as critical incident factor also reflects the inability of the services to fulfil the respondent needs by providing a sufficient selection of services and products in the service locations. These reports concerning the service availability also describe that attaining the required products from traditional stores seemed practically impossible due to limited selection (7) and missing products (6) on the shelves. The difficult availability (5) of services and products in stores, the inability to see selection beforehand (1), and the lack of specialized stores (1) carrying the specialized product selections limited the service selection for the respondents. The ordering process was described to be slow (3), hindering the shopping experiences and wasting the time as they had to wait for the order to arrive (2) at the service location. Respondents also reported that the additional service costs (1), such as ordering fees, were reportedly too high compared to the price of the desired product.

7.1.4 Influence of service experience in traditional service environment

The service experiences of the respondents within the stores reportedly influenced the respondents to switch services, forming a critical incident category that describes how their overall service experiences within the stores had reportedly been influenced by the external and physical factors attributable to the service itself and the personal factors of the respondents, encouraging them to switch. These emerging critical incident factors relating to the service experiences within

the traditional stores can be examined through three subcategories, as depicted in Table 9, which consist of service of the personnel, access to information, and use of resources.

TABLE 9 Influence of service experience in traditional service environment

Influence of service experience in traditional service environment	**Service of personnel**	Unnecessary personnel interaction 7; Lacking personnel interaction 5; Personnel's pressure on purchase decision 2; Monitoring of customer 2; Hurry of personnel 1; Change of personnel 1; Hindered formation of customer-service relationship 1; Lack of specialized personnel 1; Incapability to answer questions 1
	Access to information	Unfulfilled expectations 8; Frustrating searching 5; Visiting several service locations 5; Lacking personnel interaction 5; No peace to browse 4; Complex searching 4; Laborious searching 4; Slow searching 4; Difficult search for deals 1; Inability to see selection beforehand 1; Inaccurate storage information 1
	Use of resources	Slow visitation 12; Lack of energy 4; Shopping numerous products 4; Desire to manage personal finances 4; Lack of time to shop 3; Daily hurry 3; Desire to manage personal time 2; Lack of time to cook 1

The impact of the service of the personnel emerged as a memorable critical incident factor through reports concerning lacking interaction and excessive interaction of the service personnel. Unnecessary interaction (7) had an impact to service switching processes through service of the store personnel, emerging through reportedly unwarranted and annoying interaction that provided no benefit from the respondent viewpoints. The respondents also described that they experienced personnel's pressure on purchase decisions (2) while visiting the stores through the monitoring of customers (2). The personnel was also reported to be incapable to answer the questions (1) of the respondents, and that assistance was hard to come by due to the hurry of the personnel (1) and the frequent change of the personnel (1) with the lack of specialized service personnel (1). Such lacking personnel availability and service in the stores also formed reports of lacking personnel interaction (5) and a description of how lacking and poor service of the personnel hindered the formation of customer-service relationship (1), causing them to switch.

Access to information provided by the traditional retail services emerged as critical incident factors concerning how their needs for information had not been met, encouraging them to switch to alternative retail services. Some reports described that their unfulfilled expectations (8) due to inaccurate storage information (1) regarding product availability in the service location resulted in unnecessary shopping visits and wasted resources due to their inability to see

selection beforehand (1) in the store to ensure that their required products would be readily available. Having to visiting several service locations (5) when searching for the desired products, which in turn formed complex searching (4), was described to be slow (4), laborious (4), and frustrating (5) as the respondents were not able to meet their expectations to save money, including a report of difficult search for deals (1) in the service locations. Their need for information was also left unfulfilled due to lacking personnel interaction (5) and no peace to browse (4), connecting to the critical incident factors regarding the service of the personnel.

The use of resources in the stores where the use of personal resources, such as time, money, and energy, to utilize the retail services had contributed to service switching processes due to the loss of resources. Time-consuming visitation (12) to the service locations emerged as a critical incident factor as the respondents had to spend a lot of time to search for the products and services by visiting several stores to fulfil their goals for using the retail services. This also resulted in lack of energy (4), leading to critically exhausting visits to the retail service locations through shopping numerous products (4) was also reported to be exhausting due to inconvenient service experiences, such as slow queues and crowds. The respondents were also reportedly hindered from using the traditional stores due to lack of time to shop (3) from daily hurry (3) and the lack of time to cook (1). The respondents also reported that they desire to manage their own use of free time (2) and personal finances (4), which had encouraged them to avoid unnecessary visits to the stores.

7.1.5 Personal views of traditional service

The critical incident category concerning the personal views of the respondents towards stores focuses upon the significant and inherent perceptions of the service experiences that had reportedly affected the respondents even on the emotional level, as the external service environment had reportedly affected the respondents internally when they attempted to fulfil their needs for service use and had encouraged them to switch services. This critical incident category also reflects and supplements other critical incident categories by providing contextual information regarding the inherent processes of the respondents and their service-use experiences in stores. The critical incident category focusing upon the perceptions of the traditional service can be examined in detail through four subcategories, illustrated in Table 10, consisting of need of assistance, interaction with the personnel, annoyances in the service environment, and significant feelings during service use.

TABLE 10 Personal views of traditional service

Personal views of traditional service	**Need of assistance**	Lacking personnel interaction 5; Detailed requirements 3; Difficult comparison 3; Lack of help 2; Need of help 2; Disorganized selection 1
	Interaction with personnel	Lacking personnel interaction 5; Anxiety-inducing interaction 4; Aggressive service of personnel 1; Active product presentation 1; Avoiding the customer 1; Continuous chatting 1; Active product recommendation 1
	Annoyances in service environment	Unfulfilled expectations 8; Laborious visits 7; No peace to browse 4; Crowds 4; Amount of annoying stimuli 2; Lack of help 2; Sense of forced performance 1; Impractical opening hours 1
	Significant feelings during service use	Frustration 7; Laborious visits 7; Anxiety 6; Annoyance 5; Stress 3; Hurry 2; Feeling weak 1

The need of assistance as a critical incident factor affecting the personal view of the service emerged from reports concerning the required assistance that the respondents needed during their service experiences in the stores, which had caused them to switch when their needs were not met. The respondents reported that they were unable to receive assistance due to lack of interaction (5) with the personnel within the traditional service location, leading to lack of help (2), despite their need for help (2) to access the desired products. The detailed requirements (3) to meet their unique needs, along with the difficult comparison (3) and the disorganized selections (1) also had impacted their decision-making processes due to unmet needs for assistance from the service and its personnel.

Interaction incidents with the service personnel also created critical incidents, connecting partly with the need of assistance, but also through the critical incident factors stemming from the significant incidents reflecting the service of the store personnel. While the respondents had reported that their service switching processes were influenced by the lacking personnel interaction (5) and avoiding the customers (1), the respondents reported that the continuous chatting (1) with the personnel had encouraged them to switch as well. These interaction incidents were also described to be anxiety-inducing interactions (4), pressuring the respondents to make purchases resulting from active product recommendation (1) and presentation (1), giving the respondents an impression of aggressive service of personnel (1) within the stores.

The annoyances in the service environment emerging as critical service experience incident factors described the annoyances that disrupted the shopping experiences of the respondents, causing them to spend their personal resources in an unconstructive manner. The amount of annoying stimuli (2) was reported to contribute to unpleasant service experiences, leaving the respondents no peace to browse (4). The unfulfilled expectations (8) and lack of help (2) also created annoying service experience incidents as the respondents had to visit several service locations to search for the products they needed, resulting in laborious visits (7) to the stores. The impractical opening hours (1) also served as a factor in the

critical service experience incidents as the respondents described their desire to avoid crowds (4) associated with the rush hours. The respondents also described that they perceived the shopping visits to have a sense of forced performances (1), mandatory errands, due to the restrictive measures to prevent the spread of COVID-19.

The significant feelings that arose from the narratives formed during the service experiences in traditional stores described the inherent physical and emotional reactions and sensations of the respondents towards the experienced service experiences, which discouraged them from using the service locations. The frustration (7) of the respondents correspond to the critical incident factors regarding the insufficient availability of service, products, and selections, and the lacking capability to meet their needs and expectations. These reports also correspond to the reported sense of annoyance (5), gaining further influence from the unpleasant interaction incidents that were also described to be unpleasant due to personal anxiety (6). This also influenced the reported sense of laborious visits (7) and the experienced sense of stress (3) of the respondents. The sense of hurry (2) and weakness (1) also created a concrete need to obtain sustenance quickly for the respondents, creating critical incidents that led to service switching.

7.1.6 Awareness of alternative services

The awareness of alternative retail services emerged as a critical incident category through the critical incident reports where the respondents, who reportedly may not have had much prior experience of using these alternative retail services or had been ignorant of these services, had become aware of these alternative retail services where they could switch to, and were thus encouraged to switch from the traditional stores. The critical incident factors influencing the respondent narratives concerning how the awareness of the alternative retail services had encouraged them to switch can be examined through three subcategories, depicted through Table 11, which consist of peer influence, marketing, and search for information.

TABLE 11 Awareness of alternative services

Awareness of alternative services	**Peer influence**	Experiences of social circles 4; Comments 1; Peer reviews 1; Gift card 1
	Marketing	Deals 11; Marketing in social media 3; In-store advertising 3; Campaigns 3; Service gifts 3; Flyers 1
	Search for information	Product comparison 9; Product search 8; Monitoring availability 6; Online-exclusive availability 3; Supplier comparison 3; Product reviews 1; Opening of online store 1

The peer influence emerged as a critical incident factor from descriptions of how communication between the respondents and their peers had caused the respondents to switch from stores through their increased awareness of alternative

services. The experiences of social circles (4) had reportedly encouraged the respondents to try the alternative retail services through interaction with their friends and colleagues, along with a received gift card (1), which had increased the awareness of the respondent since it could only be used through a digital retail service. However, the service-use experiences influencing the service switching processes were not limited to the experiences of the people the respondents knew personally. The comments (1) and peer reviews (1) regarding the service and product experiences of other customers through digital communication also reportedly influenced the awareness of the respondents regarding alternative service forms, where the comments and reviews had provided support for the decision-making processes in the critical incident narratives.

Marketing also contributed to the significant incidents that had led to service switching due to increased awareness of the alternative retail services. The respondents reported how they had become aware of the alternative services through cross-channel marketing when using digital services, such as marketing in social media (3), but also within the traditional services through promotional campaigns (3), in-store advertising (3), and flyers (1). Advertised deals (11) were reportedly easier to find through the alternative services when compared to the deals available in the traditional stores. The exclusive service gifts (3) provided by the alternative retail services had also provided incentives for the respondents to switch to the alternative services, as the traditional services did not reportedly offer such gifts.

The search for information also emerged as a critical incident factor from reports where the respondents described seeking out information to meet their objectives for retail service use, which were reportedly left unfulfilled in the traditional stores. These search processes in turn had increased the awareness of the respondents regarding the alternative services. Through product search (8), the respondents were able to find the desired products and services, including products with online-exclusive availability (3). By searching for information, the respondents also described that they were able to monitor product and service availability (6) remotely, and use this information when making purchasing decisions, along with product (9) and supplier comparison (3). Product and service search had also increased their awareness regarding the available alternative services, as did the product reviews (1) that were accessible through these services. The opening of online store (1) to the European users also increased the awareness of the respondent of the alternative service, which was reported to be a significant surprise for a respondent as they were able to access the previously unattainable online service while looking for information about the store.

7.1.7 Attraction of alternative services

Another critical incident category relating to the alternative retail services describes how the respondents were attracted to the alternative retail service experiences based on their prior experiences with the alternative services. The familiarity of the alternative retail service features and perceived benefits were reportedly deemed to be attractive for the respondents, which created significant

service experience incidents that caused them to switch from the traditional retail services when the alternative retail services were compared to the use of traditional retail services. The critical incident factors concerning how the attraction of the alternative services had affected the respondents can be examined through three subcategories as presented in Table 12, consisting of personal values, certainty of service availability, and possibility of attaining service objectives.

TABLE 12 Attraction of alternative services

Attraction of alternative services	**Personal values**	Decreasing waste 6; Willingness to experiment 4; Supporting sustainable development 2; Curiosity 1
	Certainty of service availability	Service features 101; Easy usability 79; Supported decision-making 37; Availability of information 33; Product search 8
	Possibility of attaining service objectives	Resource management 64; Opportunity of remote use 34; Availability of information 33; Location-independent use12; Independent use 9; Time-independent use 8

The personal values of the respondents functioned as critical incident factors as the respondents reportedly wished to realize their own values through service use, yet this was hindered due to significant product and selection availability incidents, where the availability of the required products and selections was significantly lacking. To realize their personal values through service experiences to support sustainable development (2) and decrease waste (6), the respondents were encouraged to switch to digital and mobile service alternatives. Other significant factors emerging from the reports and relating to their personal values regarded their sense of curiosity (1) to try new service experiences offered by the alternative retail services, and their willingness to experiment (4) with new forms of service.

The certainty of service availability as a critical incident factor concerns the critical incident narratives where the alternative retail services were able to provide improved availability and accessibility of the required services when compared to the traditional stores. This perceived certainty was also influenced by their earlier experiences with the alternative services, which is described later in this chapter as a mooring factor. The reported service features (101) of the alternative retail services contributed to the critical incidents by reportedly providing accessible and faster service experiences compared to traditional stores through their digital competences, such as searching, browsing, ordering, and purchasing. Easy usability (79) emerged from reports where the respondents had chosen to use alternative retail services by how much easier and convenient these services were to actually use when compared to going to the store and using the services of the stores. Supported decision-making (37) contributed to the critical service switching incident reports as well through descriptions of how the available

support, formed through the availability of information (33) and easy search for products (8), caused the respondents to switch.

The possibility of attaining service objectives as a critical incident factor emerged from reports where the respondents had described how they were able to reach the desired outcomes and goals within their personal terms by switching to alternative retail services, reportedly becoming able to meet their everyday needs in more reliable or appealing manner. A contributing factor of attaining service objectives was resource management (64) concerning saved time, energy, and money through the alternative services, when compared to how they may have been spent in the stores. The opportunity of remote use (34) of the alternative services also reportedly helped the respondents to affirm that their objectives for using the retail services would be met, thus replacing the service experience of the traditional stores. The availability of information (33) also contributed to these critical incidents by reportedly assuring the respondents of product and service availability and granting them opportunities for comparisons and more informed decision-making within their own personal terms. Independent use (9) of the retail service emerged from the reports as the ability to use the alternative services with minimal interference from service representatives. The location-independent use (12) and time-independent use (8) of the alternative services were also described to enable the respondents to meet their personal service goals without being dependent on the opening hours during the pandemic when using traditional stores.

7.2 Push factors influencing service switching behaviour

The results for the second theme describe the push factors that emerged from the critical incident reports where the critical service experience incidents had hindered and negatively affected the respondents' well-being and their capabilities to utilize the traditional retail services in the physical retail service locations to their fullest potential. The narratives containing push factors describe how the respondents were not able to meet their goals and requirements for using the traditional retail services to fulfil their needs, and reportedly could not obtain pleasant service-use experiences that would sustain their use of the traditional retail services or support their use of personal resources, hindering value formation processes and encouraging them to switch.

The reported push factors that emerged from the qualitative content analysis formed five distinctive categories that are presented in the proceeding secondary subsections. These five push factor categories concern the COVID-19 pandemic serving as encouragement, unpleasant interaction experiences with the service personnel, access restrictions to the traditional service, hindrances of the traditional service availability, and the reportedly unpleasant nature of the traditional retail service experiences.

7.2.1 COVID-19 as encouragement to switch

While the critical incident category concerning COVID-19 pandemic reflects how the COVID-19 caused the respondents to switch to alternative retail services due to negative service experiences, COVID-19 also emerged as a push factor during these reported critical incidents, leading the respondents to become unsatisfied when visiting stores through the pressure of meeting their service-use objectives with fewer trips to the stores. The push factor category focusing on the encouragement of the COVID-19 can be examined through three subcategories, depicted through Table 13, which describes how this encouragement to switch services due to COVID-19 was formed through the respondents' experiences of the restrictions, the impact of restrictions upon interaction, and the personal approach to COVID-19 of the respondent.

TABLE 13 COVID-19 as encouragement to switch

COVID-19 as encouragement to switch	**Experience of restrictions in traditional service environment**	Avoidance of human contact 9; Avoidance of visitation 7; Lack of restrictions to avoid transmission 3; Unenforced mask requirement 2; Minimization of visits 2; Insufficient maintenance of hand hygiene 2; Risk of contagion 2; Amount of crowds in service location 2; Unenforced limitation of visiting customers 1
	Impact of restrictions on interaction	Avoidance of human contact 9; Behaviour of other customers 3; Monitoring of adherence to restrictions by other customers 1; Unpleasant comments of other customers 1; Confrontational behaviour of other customers 1
	Personal approach to COVID-19	Unpleasant visitation 4; Fear of contagion 3; Anxiety toward crowds 2; Exhausting visitation 2; Sense of insecurity 1

The respondents reported that the restrictions applied within the service locations were lacking and increased the risk of contagion (2) when the other customers were perceived to not follow the restrictions, which in turn caused the minimization of visits (2) to the store. The reports contained descriptions of how the stores and their lack of restrictions to avoid transmission (3) as public spaces caused the respondents to feel encouraged to switch to alternative retail services by avoidance of visits (7) to avoid human contact (9). The respondents also reported how unenforced mask requirement (2) and insufficient maintenance of hand hygiene (2) created significant experiences encouraging them to switch. The amount of crowds in service locations (2) also pushed the respondents to switch, due to the unenforced limitations of visiting customers (1).

The service experiences in the stores were also negatively affected through the reported push factors relating to the impact of the restrictions upon interaction. Social contact between the respondent and the service personnel and other customers was reportedly undesirable, as the relatively close physical proximity

increased the risk of contagion, which in turn was also reported to decrease valuable interaction opportunities between the respondent and the service personnel. The significant interaction incident narratives described how the traditional retail service experiences pushed the respondents to switch to avoid human contact (9) during the pandemic. The impact of the restrictive measures upon interaction emerged from reports describing the behaviours of other customers (3), including a description of confrontational behaviour of the other customers (1). The respondents also described how the interaction in stores was negatively affected by the restrictions through monitoring of adherence to restrictions by other customers (1). The other customers were also described to interact with one respondent through unpleasant comments (1) when going to the store during the pandemic.

The personal approach of the respondents to COVID-19 also emerged as a push factor, besides as a contributor for the critical incidents concerning the personal approaches to COVID-19. The respondents reported feeling encouraged to switch services due to their inherent emotional responses and attitudes towards COVID-19 and its negative impact upon the service experiences within the stores. The respondents reported that due to the restrictive measures in the traditional stores, they had switched to alternative services to avoid the unpleasant (4) and exhausting visitations (2) in the stores. Besides the restrictions, the fear of contagion (3) pushed the respondents to switch, as the lacking restrictive measures in stores made it difficult for the respondents to mitigate their personal risk of infection. The respondents described that they had started to feel anxiety towards crowds (2) and experienced a sense of insecurity (1) for their health, which encouraged the respondents to switch to alternative retail services.

7.2.2 Unpleasant interaction with service personnel

The push factor category concerning the unpleasant interaction with service personnel emerged from the critical incident reports categorizing the impacts of the unpleasant interaction incidents between the respondents and service personnel. These push factors concerned the interaction incidents that ranged from lacking to excessive interaction, which had reportedly pushed the respondents to switch to avoid these unpleasant interactions in the stores. The push factor category examining how the unpleasant interaction with service personnel had influenced respondents to switch can be depicted through four subcategories, illustrated in Table 14, which describes how interaction with the service personnel emerged as push factors from the reports through lack of personnel interaction, excessive personnel interaction, personal approach to interaction, and maintenance of interaction by traditional service.

TABLE 14 Unpleasant interaction with service personnel

Unpleasant interaction with service personnel	**Lack of personnel interaction**	Lacking personnel interaction 5; Slow personnel 2; Lack of service personnel 2; Customer is not noticed 1; Lack of specialized personnel 1; Customer is not heard 1; Incapability of answering questions 1
	Excessive personnel interaction	Unnecessary personnel interaction 7; Anxiety-inducing interaction 4; Oppressive interaction 2; Active product presentation 1; Continuous chatting 1; Active product recommendation 1; Aggressive service of personnel 1
	Personal approach to interaction	Restless visitation 4; Social anxiety 4; Anxiety-inducing interaction 4; Personnel's pressure on purchase decision 2; Oppressive interaction 2; Annoyance of interaction 1
	Maintenance of interaction by traditional service	Lacking personnel interaction 5; Lack of help 2; Lack of service personnel 2; Slow personnel 2; Monitoring of customer 2; Hindered formation of customer-service relationship 1; Hurry of personnel 1; Unpleasant personnel 1; Change of personnel 1

The lack of personnel interaction emerged as a push factor through respondent descriptions where lacking interaction hindered their access to information and opportunities to receive assistance to support their service use and decision-making processes within the stores. The lacking personnel interaction (5) reportedly hindered the formation of the valuable customer-service relationship from the respondent point of view, as the respondents reported they as customers were not heard (1) or noticed (1). The respondents also described that they had to request help from several service personnel members, influenced by lack of service personnel (2) and specialized personnel (1), in order to access the services and products they desired. The personnel were also reportedly slow (2), causing the respondents to spend more time in stores. The service personnel were also reported to be incapable of answering questions (1), leaving the respondents without the information they required to benefit from visiting the stores.

Conversely, excessive personnel interaction was perceived to be unwarranted and disruptive towards the service experiences that the respondents wanted to have when visiting the stores. The excessive personnel interaction reportedly consisted of unnecessary personnel interaction (7) through repetitive offerings for assistance, along with continuous chatting (1). This excessive interaction was described to appear as oppressive interaction (2) and anxiety-inducing interaction (4). The excessive interaction also emerged from reports where the respondents had felt encouraged to switch due to aggressive service of personnel (1) and active product presentation (1) and recommendation (1).

The personal approach of the respondents towards interaction between them and the service personnel emerged as a push factor within the critical interaction incident reports where their personal views of the traditional retail service

had been affected and caused them to switch. As mentioned in the previous subcategory description, the excessive interaction encouraged the respondents to switch from using the stores due to oppressive interaction (2) and personnel's pressure on purchase decisions. The interaction between the respondents and the service personnel was also described to be anxiety-inducing interaction (4) as the personal approaches towards interaction were also affected by reported social anxiety (4), influenced by the excessive personnel interaction and the influences of COVID-19. The respondents described further that their excessive and pressuring interaction experiences resulted in restless visitations (4) within the stores, where one respondent described how the annoyance of interaction (1) had encouraged them to switch.

The maintenance of interaction processes by the stores and service personnel was perceived to be insufficient for using the stores for their intended purposes for the respondents, pushing them to switch. The change of personnel (1) within the stores was reported to disrupt the formation of sustained interaction opportunities for one respondent, leading in their report to hindered formation of customer-service relationship (1) which they had deemed to be personally valuable. The hurry of the personnel (1), and the lack of service personnel (2), reportedly encouraged the respondents to switch due to the lacking personnel interaction (5) that had contributed to lack of help (2). The respondents also reported that they sometimes had to request assistance from many people, creating time-consuming interaction processes, which was further influenced by slow personnel (2). The excessive and oppressive interaction, along with monitoring of customers (2), also reportedly created a perception of unpleasant personnel (1) for a respondent.

7.2.3 Access restrictions to traditional service

The push factor category regarding the access restrictions to traditional retail service examines how the respondents reported being encouraged to switch from the traditional stores due to hindrances to access the service environment, emerging from critical incident categories concerning the issues of service availability. This push factor category illustrates how the respondents reported being encouraged to switch from the traditional stores due to not being able to meet their objectives for using the retail service in the traditional, physical service environments. Table 15 depicts how this push factor category concerning the access restrictions to the traditional service through four subcategories consisting of time restrictive service, location restricted service, personal restrictions, and restricted service process experiences.

TABLE 15 Access restrictions to traditional service

Access restrictions to traditional service	**Time-restricted service**	Slow visitation 12; Lack of time 9; Visiting several service locations 5; Slow searching 4; Slow queuing 2; Slow service of personnel 2; Slow delivery 2; Impractical opening hours 1
	Location-restricted service	Impractical location 6; Poor transportation 4; Lack of car 4; Long distance 3; Searching for parking space 1
	Personal restrictions	Lack of time 9; Visiting several service locations 5; Exhaustion 5; Lack of car 4; Situation in life 4; Social anxiety 4; Hurry 4; Self-isolation 3; Quarantine 3; Searching store by store 2; Illness 1; Feeling weak 1; Hangover 1
	Restricted service process experience	Queues 11; Crowds 10; Frustrating searching 5; Poor product selection 5; Visiting several service locations 5; Hurry 4; Bad weather 4; Restless visitation 4; Difficulty shopping numerous products 2; Big service location 2; Inability to see selection beforehand 1; Added service costs 1; Change of personnel 1; Storing the receipt 1

Time restricted service emerged as a push factor from the reports where the limited available time to use the traditional retail services by accessing the stores had encouraged them to switch to alternative retail services. The slow visitation of the service (12) was described to be too time consuming for the respondents, who reported that they were not able to visit the traditional retail services due to their lack of time (9) and impractical opening hours (1). The respondents described that the slow queuing (2) and slow service of personnel (2), along with slow delivery (2) of the products to the stores, contributed to the time-consuming nature of the service experiences in the stores, pushing them to switch. The respondents also reported that slow searching (4) contributed to laborious and lengthy service visits, especially if they had to visit several service locations (5).

The location restricted service on the other hand reflects the push factors that were based on the physical distance and accessibility of the locations of the stores for the respondents, which had reportedly restricted or significantly hindered their access to the stores. The impractical location (6) of the physical stores, long distance (3), and poor transportation (4) to and from the service location emerged as encouragement for the respondents to switch services, as the respondents reported that they did not have the necessary time or energy to walk or drive to and from the stores. The lack of car (4) clearly emerged as a relevant push factor, reportedly encouraging the use of alternative retail services. Even when traveling to the stores with a car, the impractical parking services causing the respondent to search for parking space (1) reportedly contributed to the unpleasant service experience.

The personal restrictions of the respondents also emerged as push factors that had prevented them from using the stores due to intrinsic reasons, further encouraging them to switch to alternative retail services. The lack of time (9)

emerged to prevent the respondents from accessing the stores due to situations in life (4), including social anxiety (4) and everyday hurries (4), which were reportedly influenced with the critical incidents concerning the changes in their lives that had decreased their available time to visit stores as reported critical incidents, along with the aforementioned lack of car (4). The respondents also reported that due to exhaustion (5) they were sometimes too tired to engage in laborious visits in the stores, as they reportedly had to visit several service locations (5) while searching store by store (2) to obtain their desired products. Quarantine (3), self-isolation (3), feeling weak (1), hangover (1), and illness (1) also contributed as personal restrictions for the respondents to using the stores.

The restricted service process experiences in the store also contributed to the unpleasant service experiences for the respondents. The checkout processes were described to be unpleasant due to long queues (11) while being surrounded by crowds (10), creating annoying stimuli that contributed to service process experience restrictions through restless visitation (4). The respondents described that they felt encouraged to switch due to visiting several service locations (5) and risking bad weather (4) due to poor product selection (5). This also contributed to frustrating searching (5) if they could not find what they were looking for due to inability to see selection beforehand (1) and big service location (2), contributing to the reports concerning difficulties shopping numerous products (2). The added service costs (1) of ordering their desired products to the service location further restricted the service process experiences as they reportedly incurred too high costs when compared to the costs of the products itself. Personal hurry (4) also reportedly pushed them to switch as visiting the stores were perceived to be a waste of time. The change of personnel (1) also reportedly restricted the formation of a valuable customer-service relationship and that storing the receipt (1) as a service process was reported to seem redundant.

7.2.4 Hindrances to traditional service availability

The hindrance to the traditional service availability emerging as a push factor category from the critical incident reports that depicted how the hindered service feature availability in the stores had in turn hindered their service experiences, which reportedly encouraged them to switch as a push factor, even if the respondents had had access to the traditional retail service locations. Table 16 depicts how this push factor category can be examined through four subcategories describing how the availability of products, availability of selection, availability of service processes, and availability of information had been hindered in the traditional stores, pushing the respondents to switch to alternative retail services.

TABLE 16 Hindrances to traditional service availability

Hindrances to traditional service availability	**Availability of products**	Lack of availability 13; Expensive price 7; Lack of preferred products 5; Lack of speciality products 4; Unreliable availability 4; Lack of product models 4; Lack of popular products 1
	Availability of selection	Lack of selection range 24; Unsuitable selection to personal needs 12; Diminished supply of selection 9; Lack of trust in supply 5; Lack of quality offerings 1; Being behind the trends 1
	Availability of service processes	Slow visitation 12; Visiting several service locations 5; Complex ordering process 3; Lack of checkout locations 3; Big service location 2; Slow delivery 2; Slow queueing 2; Slow service of personnel 2; Lack of help 2; Added service costs 1; Lack of specialty service locations 1
	Availability of information	Difficult access to information 11; Frustrating searching 5; Complex searching 4; Difficult comparison 3; Difficult decision-making 3; Lack of product information 1; Inaccurate information 2; Lack of trust in information 1; Inability to see selection beforehand 1; Storing the receipt 1; Difficult search for deals 1

The availability of the products emerged as a push factor through respondent narratives where they reported being left empty handed when describing critical incidents concerning service availability, which had caused them to switch services due to unreliable availability (4) of the desired products. The reported lack of availability (13), including lack of speciality products (4), product models (4), preferred products (5), and popular products (1), further pushed the respondents as encouragement to meet their needs by switching to alternative retail services. The respondents also described how the expensive prices (7) affected the availability of the desired products negatively, encouraging them to switch services to find what they were looking for with more affordable prices.

The availability of selection of the products as a push factor describes how the respondents were unable to meet their needs due to lacking selection availability, overlapping with the hindrances of the product availability, which encouraged them to switch to alternative retail services to ensure that the products within personal ranges would meet their requirements to mitigate the expense of personal resources when searching for the products. Due to the lack of selection range (24), such as lack of offered models, colours, and sizes, the respondents reportedly experienced lack of trust in supply (5) offered in the stores. The diminished supply of selection (9) emerged as encouragement for the respondents to seek their required product selections that were no longer available in stores through alternative retail services. Reports also described that because the service and product selections provided unsuitable selection to personal needs (12), referring for example to missing sizes in clothing selection, they had felt encouraged to switch. The selections being behind the trends (1) and the lack of quality

offerings (1) further contribute as push factors concerning the hindered availability of selection, as the respondents were not able to meet their expectations for the service through the product selections offered in the stores.

The push factor regarding the availability of service processes concerns how the lacking availability of the service functionalities and features of the stores pushed the respondents to switch to alternative retail services due to disruptive service features and impractical service functionalities, which had incurred costs on their personal resources. The availability of the services of the stores was reported to be slow due to the lack of checkout locations (3) leading to slow, congested queues (2) and slow visitation (12) in the stores. The pushing factors also emerged through reports concerning complex ordering process (3) and slow delivery (2), along with added service costs (1), which in turn were too high for a respondent when compared to the price of the ordered product itself. The lack of specialty service locations (1) contributed to the reported lacking availability of the specialized products and selections, causing the respondents to visit several service locations (5). The respondents also had to spend additional time when visiting big service locations (2) by looking for the desired products while the service of the personnel contributed to the reported push factors of the stores through the lack of help (2) and slow service of personnel (2).

The availability of information within the stores also had pushed respondents to switch, emerging from respondent narratives concerning how the lack of product information (2) and difficult access to information (11) in stores reportedly affected how the respondents were able to make decisions through reports of difficult decision-making (3) on their own terms, which was contributed to through difficult comparison (3) and complex searching (4) of the products. Due to the lack of available information, the respondents reported that they felt encouraged to switch to alternative retail services through frustrating searching (5), even revealing a reported lack of trust in information (2). The inaccurate information (1) had also left a respondent empty-handed in the stores despite that the supply information had shown that the product would be available. The inability to see selection beforehand (1) had reportedly made it further difficult for a respondent to plan their visit to the store, encouraging them to switch. Storing the receipt (1) as proof of purchase also contributed to the lacking availability of information to manage the use of resources. The difficult search for deals (1) reported also caused a respondent to spend more time in the stores while searching for deals and discounts.

7.2.5 Unpleasant service experience

The push factor category examining the unpleasant service experiences in the traditional stores stems from the critical incident narratives where the respondents felt that some service experiences in the stores had encouraged them to switch to alternative retail services due to their unpleasant natures. These push factors were based on the perceptions of the respondents, which were evident in the critical incident reports evoking emotional responses within the respondents during significant critical service experience incidents in the stores. The push

factor category concerning how the influence of unpleasant service experiences had pushed the respondents to switch from traditional stores can be examined with three subcategories, illustrated in Table 17, consisting of use of resources, lacking support of service experience, and personal outlook of the traditional service.

TABLE 17 Unpleasant service experience

Unpleasant service experience	**Use of resources**	Slow visitation 12; Pointless visits 7; Expensive price 7; Exhaustion 5; Hurry 4; Annoying stimuli 3; Difficulty shopping numerous products 2; Added service costs 1
	Lacking support of service experience	Slow visitation 12; Lacking personnel interaction 5; Difficult comparison 3; Difficult decision-making 3; Annoying stimuli 3; Personnel's pressure on purchase decision 2; Lack of help 2
	Personal outlook of traditional service	Dissatisfaction 18; Lack of motivation 8; Frustration 7; Pointless visits 7; Lack of trust 7; Laborious visits 7; Anxiety 6; Exhaustion 5; Unreliable availability 4

The push factor concerning the use of resources in the stores emerged from descriptions of how the respondents had regarded the visits to the stores as wastes of their time, energy, and money. The respondents described that their resources were wasted on slow visitation (12), describing them as pointless visits (7). The respondents also had to spend their energy when visiting the stores on their service processes despite their hurries (4) and exhaustion (5), with added annoying stimuli (3) from the physical service environment, and COVID-19 restrictions. The expensive price (7) and added service costs (1) through the reported delivery fees with the stores also emerged as push factors, as the respondents also had reported their desires to manage their use of money, along with time. Respondents also reported that handling difficulty shopping numerous products (2) was difficult when visiting the stores, costing them more energy and time to navigate these laborious visits.

The lacking support of service experiences as a contributor to the unpleasant service experience concerns how the respondents experienced a mismatch between their need and the provision of assistance in the stores, creating unpleasant service experiences. The lacking personnel interaction (5) reportedly contributed to lack of help (2) for the respondents, increasing the time and energy they had to spend in stores to obtain the help and the products they needed. Conversely, the personnel interaction was also described as excessive and unpleasant through reports concerning personnel's pressure on purchase decisions (2). The slow visitation (12) at the stores had also reportedly hindered the service experiences for the respondents at the cost of their personal resources without the required support to facilitate pleasant service-use experiences, often while being surrounded by annoying stimuli (3) that also contributed to the unpleasant

nature of the visitations, as the respondents were not able to mitigate the stimuli with the help of the stores. Difficult comparison (3) the products and services also contributed to the reported unfavourable perceptions of the service experiences due to lack of availability of information and assistance. Likewise, difficult decision-making (3) also reportedly hindered the service experiences due to inaccessible information of the products and services and the lack of help in the stores to access the necessary information to make those decisions.

The push factor emerging from the critical incident reports reflecting the personal outlooks of the traditional retail services, examines how the inherent personal views and perceptions of the respondents had contributed as push factors as responses to the unpleasant service experiences in the stores. Dissatisfaction (18) towards the stores arose from the reports of unpleasant service experiences and unmet needs from the respondent descriptions as the stores had not delivered the service in the desired manner. The respondents also described how their personal anxiety (6) further made the services experiences unpleasant through situational context of visiting the stores. The unreliable availability (4) of the services and products also contributed to the reported lack of trust (7) towards the stores, as the respondents were not able to ensure that they could obtain what they wanted from the stores. Also, because the respondents were reportedly required to visit several service locations to assure the fulfilment of their service objectives, their narratives detailed how the exhaustion (5) and laborious visits (7) contributed to the unpleasant traditional retail service experiences, which was also evident through reports concerning how they regarded visitations to the stores to be pointless visits (7). The reports of the unreliable, exhausting, and pointless service experiences in the stores also contributed to the reported senses of frustration (7) with the service and lack of motivation (8) to use the traditional retail service to meet their retail service needs and wants.

7.3 Pull factors influencing service switching behaviour

The results for the third theme describe the pull factors that arose from the critical incident reports and their descriptions, which concern the attractive influences of the alternative retail services that had encouraged them to switch from the traditional stores, such as mobile applications and other digital services. These pull factors emerged from critical incident reports regarding how the respondents had become increasingly aware of the alternative retail services and how the attractiveness of the alternative retail services and their features had led them to switch.

The pull factors also emerged from push factor descriptions through juxtaposition and comparison of the alternative retail services to the negative service experiences and lacking service offered through the traditional service locations. The service switching behaviour was reported to facilitate the fulfilment of needs and wants for desirable service experiences, besides meeting the needs for acquiring the products and services for the respondents, forming the attractive pull

factors within their reports. The qualitative content analysis of the critical incident narratives and the descriptions of how the service switching intentions had been affected formed five categories regarding the incentives to use alternative service, positive peer influence, functioning alternative service, availability of alternative service, and positive service experience.

7.3.1 Incentives to use alternative service

The pull factor category examining the incentives to use alternative retail service concerns the pull factors that were described to pull the respondents to switch through additional incentives from the traditional stores during critical incidents where their awareness of the alternative retail services was reportedly increased through marketing. This pull factor category, illustrated with Table 18, examines through four subcategories how the alternative retail services had reportedly attracted the respondents to switch from the traditional services through marketing, special offers, service gifts, and the exclusive nature of the alternative retail services that appealed to the respondents and pulled them to switch.

TABLE 18 Incentives to use alternative service

Incentives to use alternative service	**Marketing**	Availability of deals 14; Marketing in social media 6; Advertisements 5; Store-specific deals 4; Campaigns 3; Flyers 1
	Special offers	Store-specific deals 4; Personal offers 3; Online-exclusive availability 3; Targeted promotions 3; Longer duration of deals 2; Promotional code 1
	Service gifts	Service gifts 3; Targeted gifts 2; Free samples 1; Personalized service gifts 1
	Exclusive nature	Service gifts 3; Free delivery 3; Online-exclusive availability 3; Gift card 1

Marketing emerged as a contributing pull factor through the critical incident reports, where the respondents described becoming more aware of the alternative services and their attractive incentives through product and service marketing. The respondents reported that the availability of deals (14) offered through alternative retail services had attracted them to switch, as they were reportedly able to access them when compared to the deals available in stores. The marketing efforts attracting the respondents to switch also contained reports of store-specific deals (4) that enabled the respondents to meet their specific service objectives, and campaigns (3) offering benefits of using the alternative services. Advertisements (5) of the alternative retail services within the stores, including promotional flyers (1), also had reportedly increased the awareness of the alternative services and their potential benefits, such as more affordable prices, for the respondents. Marketing of the alternative retail services was also described to be constantly present digitally as well through marketing in social media (6), which reportedly increased the respondents' awareness of these retail services.

Special offers as a pull factor subcategory describes how the special offers reportedly provided accessible information of the current deals and time-specific special offers for the respondents that could be accessed if they switched to the alternative retail services, providing opportunities to save their monetary resources. The respondents reported that they felt attracted to the alternative services through the personal offers (3) and targeted promotions (3) that targeted their identities, creating a sense of privilege and reports of deals that were offered just for them. The store-specific deals (4) reportedly offered support for the decision-making processes for the respondents as they were able to attain specific information of deals. The longer duration of deals (2) also attracted the respondents to switch as they were reportedly able to take charge of their own service experiences by switching to the alternative retail services. The online-exclusive availability (3) and promotional code (1) were also described to attract the respondents to switch, as these could not be accessed from the traditional stores without switching to the digital and mobile services.

The service gifts as a pull factor concerns the physical rewards the respondents were able to receive by using the alternative retail services, which pulled them to switch. These complimentary service gifts (3) reportedly increased the attractiveness of the retail services compared to the traditional stores where these service gifts were not reportedly offered. The service gifts were reported to include complementary product samples (1) and targeted gifts (2) that were selected depending on the service-use behaviours of the respondents, such as purchase history, when using the alternative retail services to affirm their identities through personalized service gifts (1), emerging through a narrative where the respondents described that the service gift was based on the purchased brands and features of the products.

The exclusive nature of the alternative retail services also emerged as an incentive for the respondents to switch to alternative retail services through exclusively available incentives that could not be accessed through the stores, which emerged through reports of the service gifts (3). The exclusive nature of the alternative retail service features and functionalities also provided attractive incentives to switch through free deliveries (3). The online-exclusive availability (3) of the desired products reportedly pulled the respondents to switch, while contributing to the critical incidents regarding the product availability within the stores, where their awareness of the alternative retail services was reportedly increased as they searched for information of the required products. A gift card (1) was also described to increase the awareness of the alternative digital and mobile retail services through peer influence as a gift to the respondent, since the gift card could only be used through the alternative retail services.

7.3.2 Positive peer influence

Positive peer influence as a pull factor category describes how the interaction between the respondents and their peers had influenced the respondents to switch from the traditional service to digital and mobile services. These pull factors emerged through the critical incident reports where the respondents described

how their increased awareness of the alternative service was affected by peer influence. This pull factor category reportedly helped the respondents affirm their expectations for the positive service experiences and product attributes, while also reportedly ensuring that their needs would be met by switching to the alternative retail services. The pull factors concerning the positive peer influence towards service switching processes can be examined through two subcategories depicted in Table 19.

TABLE 19 Positive peer influence

Positive peer influence	**Interaction with peers**	Positive comments of colleagues 2; Positive comments of friends 2; Gift card 1; Awareness of popular products 1
	Service reviews	Comments from users 1; Product reviews 1

The interaction processes between the respondents and their peers reportedly influenced the service switching behaviours positively by supporting the attractive features of the alternative digital and mobile services. By interacting with their social peers, the respondents were able to access the positive comments of colleagues (2) and friends (2), and the respondents described that they became aware of the positive service experiences and benefits that they could also obtain by using the alternative retail services. Through interaction, the respondents also became aware of the popular products (1) available through alternative services that their peers talked about. The gift card (1) received from their peers also emerged as encouragement to use the alternative retail services to access the benefits included in the gift card.

The service reviews that were offered through the alternative retail services also attracted the respondents to switch by enabling them to access information of the service features and functionalities, along with information of the desired products, which were created by fellow users. The comments from users (1) entailed their perceptions and evaluations of the experiences that they had experienced when using the services and the products available through the service, reportedly providing insightful information for the respondent, and affirming their service-use behaviour. Similar insight and affirmation were also reportedly received through product reviews (1), which provided valuable information of the desired products from their peers that could also reportedly offer support for the decision-making processes.

7.3.3 Functioning alternative service

The pull factor category depicting the attractiveness of functioning alternative service emerged from reports where the respondents perceived that the alternative digital and mobile services could meet their needs by functioning as the respondents expected. These pull factors emerged from juxtaposing narratives when the respondents compared the alternative retail service functions to the

traditional retail service functionalities, where the traditional retail service functionalities had conversely contributed to the critical incidents regarding service availability issues as push factors. The pull factors concerning the functioning alternative service can be examined through four subcategories consisting of service features, service functions, acquiring products, and access to information, as depicted in Table 20.

TABLE 20 Functioning alternative service

Functioning alternative service	**Service features**	Access to information 31; Combined features in one service 18; Planning the shopping 10; Extensive searching 8; Personalized service 5; Summary of purchases 4; Payment through service 4; Service appearance 3; Sharing the recipes 1; Payment security 1
	Service functions	Remote use 38; Managing use of resources 37; Improved access to service 29; Convenient delivery 25; Parallel use of services 17; Easy ordering 12; Sense of security 7; Access to service without personnel 6; Easy returns 3; Convenient digital shopping cart 3
	Acquiring products	Remote use 38; Affordable prices 34; Larger selection 26; Selection matching preferences 18; Same products as offered in stores 11; Exclusive products 5; Selection matching values 5; Shopping for numerous products 5; Access to selection of several services through one service 2
	Access to information	Supported decision-making 56; Product information 19; Access to transparent information 14; Search for different services 13; Reliable impression 8; Speed of search 5; Access to recipes 4; Summary of purchases 4; Reading comments 2

The service features of the alternative retail services reportedly attracted the respondents by offering similar service features that they had been using in the stores, which were complemented with digital technology capabilities and service systems of the alternative retail services, offering the respondents possibilities of accessing improved service-use experiences. The access to information (31) was reportedly improved through the technological capabilities, which was also facilitated through summaries of purchases (4) since the respondents did not have to store their physical receipts to monitor the use of resources. The combined features in one service (18) offered the respondents a streamlined and convenient service experience in their narratives, enabling them to interact with other users, and manage their use of their personal resources, which was reportedly lacking in the traditional stores. The attractive service features of the alternative services were described to provide personalized service (5), as the respondents were reportedly able to tailor their search processes to easily access the desired information through extensive searching (8) through adjustable

search tools to obtain the desired information of the products and services. The service features also enabled them to plan the shopping (10) by creating and storing shopping lists and recipes that could be accessed when using the services. The sharing features also reportedly attracted the respondents to the alternative services, as they could share recipes (1) to their peers. The respondents further reported that the payment through service (4) was a convenient feature that was also safe to use through perceived payment security (1). Finally, the features were also described to be well designed with clear and appealing appearance (3).

The service functions offered through the digital and mobile services reportedly attracted the respondents to switch through improved access to the retail service (29). This also assisted the respondents to manage their personal resources through remote use (38), which also increased their perceived sense of security (7) by avoiding the risk of COVID-19 contagion that would be present in stores. The respondents also reported that they could access service processes that entailed convenient delivery (25), easy ordering (12), and easy returns (3) switching to the alternative services. This further enabled the respondents to manage their use of resources (32), as they reportedly were able to monitor their purchasing behaviours with the summaries of purchases through the digital and mobile services. The service functions were also described to seem attractive through the access to service without personnel (6), as the respondents were reportedly able to access services without interacting with the service personnel. The parallel use of the retail services (17) also reportedly attracted them to switch through simultaneous use of the traditional stores and alternative retail services thanks to their mobility. The digital shopping carts (3) also assisted the respondents to meet their retail service objectives through their provided service functions, which reportedly would have been more difficult to do in traditional stores.

The improved product acquisition attracted the respondents to switch by facilitating the acquisition of the products and services, while lacking product availability was reported to push the respondents from using the traditional stores. The reports described how the attractive product acquisition had pulled them to switch through the remote use (38) of the retail services, the affordable prices (34), and larger selection (26), including exclusive products (5) and same products as offered in stores (11), when reportedly compared to the prices and selection offered within the traditional stores. The larger available selection also reportedly enabled the respondents to access those selections matching preferences (18) by providing different product selections matching their needs, and even alternative products. The larger available selection also enabled them to acquire selection matching values (5) as they were able to acquire surplus and sustainable products more easily compared to traditional stores. Product acquisition was also reported to be improved through the access to selection of several services through one service (2) by using one digital service, namely online search engines, which saved time and energy spent on laborious product search in stores, reportedly assisting them when shopping for numerous products (5).

The improved access to information also reportedly contributed to the pull factors by enabling the respondents to attain support for their decision-making

processes. Access to transparent information (14), including reading comments (2), was reported to attract the respondents to switch, as they were able to access larger amounts of information regarding the products and services, including information of their purchase behaviours through summaries of purchases (4). The access of product information (19), such as source materials and place of origin, also reportedly facilitated supported decision-making (56) processes by enabling them to compare products and services with each other to match their personal needs and preferences, creating a reliable impression (8) of the alternative services for the respondents. The access to information was also reported to increase the speed of search (5) for the respondents, which in turn saved them personal time and energy. The respondents were also able to access recipes (4) through the alternative services. The availability of information available through alternative services also reportedly assisted the respondents in their search for different services (13).

7.3.4 Availability of alternative service

The pull factor category concerning the availability of alternative services emerged from the critical incident category where the respondents described how the attraction towards alternative retail services had caused them to switch through the possibility of attaining service objectives and the perceived certainty of service availability provided by the mobile and digital retail services. This pull factor category describes how the respondents had perceived the alternative retail service to be attractive by helping them meet their objectives for the service use even during COVID-19 pandemic which had hindered the availability of traditional retail services. Table 21 depicts how the pull factor category can be further examined through four subcategories consisting of location-independent service, time-independent service, service adoption, and remote use.

TABLE 21 Availability of alternative service

Availability of alternative service	**Location-independent service**	Using service anywhere 40; Accessing information anywhere 24; Easy ordering 12; Sense of security 7; Saving energy 4
	Time-independent service	Saving time 33; Support for time management 31; Purchasing any time 15; Longer duration of deals 2; Ordering in advance 1
	Service adoption	Simple usability 83; Lowered adoption threshold 34; Added service features 32; Easy adoption 21; Easy accessibility 16; Curiosity 7; Service appearance 3; Clear user interface 3; Intuitive user interface 1
	Remote use	Using service anywhere 40; Convenient delivery 25; Information of supply availability 22; Time-independent service 21; Comparison 12; Planning the shopping 10; Sense of security 7; Shopping for numerous products 5; Ordering in advance 1

Location-independent service as a pull factor emerged from reports describing how the alternative retail services enabled the respondents to utilize and access the services anywhere, particularly from home, which added to the convenience and comfort of use during the reported service experiences. By using the service anywhere (40), the respondents were able to engage in retail service processes through the alternative services regardless of their personal physical locations, which also supported the respondents to access information from anywhere (24), enabling them to find opportunistic deals that were similarly offered through stores. Easy ordering (12) also contributed to the attractiveness of location-independent services, as the respondents did not have to relocate themselves to traditional stores to retrieve their purchased products. This further assisted the respondents to save energy (4) that would have been spent during visitations to the stores. Location-independent service also reportedly supported the sense of security (7) as the respondents were able to avoid shopping trips during the COVID-19 pandemic through remote service use.

Time-independent service offered through the alternative retail services also reportedly facilitated constructive service-use experiences for the respondents by being more freely available. The respondents reported that saving time (33) by switching to the alternative services contributed to their attractiveness by the ability of ordering in advance (2). The respondents also reported that the alternative services could provide support for time management (31), which they had expressed their willingness for in the critical incident descriptions. The time-independent service also enabled the respondents to partake in time-independent purchases (15) that were not restricted to inconvenient opening hours of the stores. The longer duration of deals (2) offered through the alternative retail services also reportedly decreased the critical time-sensitive nature of the service use.

Service adoption further supported the service availability for the respondents who reported that the easy service adoption enabled them to use and get

acquainted with the alternative retail services. which was also reportedly affected by positive peer influence through the comments of their peers. Service adoption was described to be convenient through easy adoption (21), providing access to simple usability (83) even for the respondents who did not report having prior experience of using the digital and mobile retail services emerging as lowered adoption threshold (34). Easy accessibility (16) was also reported to attract the respondents to the alternative retail services through the common search engines when searching for products. The added service features (32) also enticed the respondents to switch with the prospect of attaining more convenient and faster service experiences that also were independent of time and physical location. The respondents reported that using the alternative services felt clear and intuitive due to appealing service appearance (3) with intuitive (1) and clear user interfaces (3), which reportedly facilitated the use and adoption of the various service features and functions using the digital technology capabilities that could not be accessed in the traditional retail service locations. The respondents also reported that they felt curious (7) to try the alternative services and added service features that were not offered through the traditional service locations.

The remote use of the alternative retail services contributed to the positive service experience as a pull factor by improving the retail service availability as has been examined in subcategories regarding location and time independent service, reportedly giving a sense of security (7) while helping the respondents to avoid COVID-19 contagion. The respondents described that they were able to use the remote service features and functions at their convenience to realize similar service-use behaviours they would have had with traditional stores by using service anywhere (40) and at any time through time-independent service (21). The respondents also reported that the comparison (12) of products and services was improved by the alternative retail services, helping the respondents to make decisions along with the access to information of supply availability (22) to help ensure that their needs would be met. The respondents were also able to ensure that their visits to the traditional stores would be efficient as the remote use of the alternative retail services enabled them to plan their shopping (10) beforehand. Resource management was also reportedly supported by convenient delivery (25) processes, where the respondents could order in advance (1). This further pulled the respondents to switch as they could do shopping for numerous products (5) remotely, providing prospects of convenient and pleasant service experiences.

7.3.5 Positive service experience

The pull factor category examining how the positive service experience had attracted the respondents to switch to alternative retail services particularly reflects the critical incident category of the attraction of alternative retail services. Within these critical incident reports, the respondents had described how they had felt attracted to switch to the alternative service through their perceptions and even prior experiences of the beneficial experiences of the alternative retail services. The perceived prospects of attaining improved service experience and the

experienced positive service experiences reportedly pulled them to switch when the service experiences of the alternative retail services were compared to the critical service experience incidents the respondents had experienced with the traditional stores, which had conversely pushed them to switch during unpleasant service experiences. Positive service experience as a pull factor category can be examined through four subcategories, presented in Table 22, consisting of identity support, resource management, positive outlook of the service, and support for decision-making.

TABLE 22 Positive service experience

Positive service experience	**Identity support**	Fostered personal well-being 25; Less irritating stimuli 10; Realization of personal values 6; Personalized service content 6; Avoiding anxiety 5; Targeted service 5; Less stress 5; Adaptation to use 4; No pressure on purchasing from personnel 2; Personalized service gifts 1
	Resource management	Resource management 96; Optimized use of time 51; Optimized use of money 34; Fast service 28; Affordable service costs 12; Decreased impulse purchases 10; Planning the shopping 10
	Positive outlook of service	Supported decision-making 56; Acquiring products 42; Meeting needs 34; Access to information 31; Meeting expectations 29; Supported search 26; Trust in service 10; Realization of personal values 6; Meeting wishes 4; Finding rare products 3; Access to popular products 1
	Support for decision making	Access to information 31; Access to service information 19; Comparison 12; Searching in advance 10; Tailoring the visibility of selection 5; Finding locations 3; Tailored searching 3; Reading comments 2; Accessibility from search engine 1

Identity support provided by the alternative retail services was described to attract the respondents to switch through service personalization, which reportedly supported superior service experiences that could be acquired by switching to the alternative retail services. The supported identities and personalization of the service features and functions were described to foster personal well-being (25) for the respondents, which was further facilitated by the remote usability of the alternative retail services. Respondents reported that by switching to the alternative retail services, they could realize personal values (6) with improved access to desired products and information, decrease anxiety (5) and stress (5), decrease the annoying stimuli (10) through location-independent service, and make their purchasing decisions freely with the lack of pressure from the service personnel (2). The personalized service content (6) of the alternative retail service also supported the identities of the respondents by enabling them to tailor various service functions, such as searches, to meet their unique situational needs.

The targeted service (5) emerged as an incentive, along with personalized service gifts (1), to switch to alternative services, contributing to the personalization of service experiences by its adaptation to use (4) via the recommendation algorithms that could recommend products, which could match unique respondent preferences by targeting their service-use behaviours.

Resource management emerged as a pull factor that contributed to the positive service experiences within the alternative retail services. Resource management (96) was reported to attract the respondents to switch by allowing them to manage their time, money, and energy on their own terms by switching to the alternative retail services. The alternative services were described to support the optimized use of time (51) and money (34), which they reportedly wanted to manage in their critical incident reports concerning the use of the resources in the stores. By the facilitation of the planning of the shopping (10), the alternative services reportedly attracted the respondents by enabling them to pre-emptively manage their use of energy, time, and money spent on shopping. The respondents reported that the affordable service costs (12) attracted them to switch, as they were able to make purchases with more affordable prices compared to the traditional store pricings. The alternative retail services also reportedly provided fast service (28), further attracting the respondents to switch to manage their personal time and energy when considering the time-consuming service experience of the traditional stores. The decreased impulse purchases (10) had also reportedly attracted the respondents to switch as the services helped the respondents manage their purchasing behaviours and the use of finances by helping them avoid making unplanned purchases.

The positive outlook of the service that emerged as a pull factor was reportedly enforced through met expectations, needs, and goals that the respondents had for the alternative retail services by acquiring products (42), and meeting their needs (34) and expectations (29). The positive outlook of the alternative retail services also emerged through reports concerning supported decision-making (56), which supported the respondents to manage their service-use experiences and the use of personal resources, which were reportedly lacking within the service experiences provided by the traditional stores. The respondents also described that the supported search (26) and improved access to information (31) pulled them to switch due to the advanced search capabilities enabled by the tailored search tools. By being able to acquire the products they desired, including finding rare products (3) and gaining access to popular products (1), the respondents described attaining positive impressions of the alternative service experiences. The positive outlooks were described to be enforced further through the realization of personal values (6) by acquiring the products and services that matched their personal values. The positive outlook of the services was also facilitated by the sense of trust (10) towards the service processes and functionalities of the alternative retail services. This reportedly increased their assurance that they could not only meet their needs and expectations, but also meet wishes (4) for the desired service by switching to the alternative retail services.'

Supported decision-making emerged as a pull factor as the respondents were able to utilize the time- and location-independent service features and functions to fulfil their needs and requirements, while managing and monitoring their resources. The respondents reported that their decision-making processes were supported through access to information (31), helping them engage in comparison (12) of the products, services, supply availability, and prices. Respondents also reported that the access to service information (19) attracted them to switch, as they were able to become aware of, and compare, the possible service options regarding the alternative retail services for meeting their objectives for using the retail service. By being able to search in advance (10), the respondents reported that they could plan their service-use behaviours, such as purchases, in detail, which attracted them to switch from the traditional stores. The alternative retail services reportedly offered support for decision-making through their search tools meant for tailoring the visibility of selection (5) by managing the visibility of the product and service selections on the services to match the unique needs and wants of individual respondents. The respondents described that the convenience of the search features included the accessibility from search engine (1) concerning the discovery of the services and products offered through the alternative retail services, which was also reported to lower the adoption threshold. The application of tailored searching (3) that was used to conduct advanced searches enabled the respondents to access available information in a convenient and easy manner for finding locations (3) for the stores and reading comments (2) from fellow users.

7.4 Emerging mooring factors

The results for the fourth theme examining the mooring factors emerging from the critical incident reports and push and pull factor descriptions describe how the service switching behaviours of the respondents were moderated through inhibition or enforcement, while not completely anchoring them to the services as the critical incidents had led to actualized service switching behaviours. These mooring factors help illustrate how the diverse, situational, and context-sensitive factors, including the respondent expectations and attitudes towards the retail services, had influenced the behaviours of the respondents and the perceived push and pull factors during the reported critical incidents.

While the recollection of the mooring factors was not requested from the respondents in the online questionnaire, these mooring factors emerged from the reports without external prompts as the respondents described the critical incidents and the push and pull factors that had affected their service switching behaviours in detail. These emerging mooring factors can be examined through five categories formed through qualitative content analysis, which consist of their respective subcategories and codes. The mooring factor categories describe how the service switching processes were moderated through the influence of

COVID-19, impacts of interaction, attachment to traditional service, personal approaches to alternative services, and switching costs.

7.4.1 Influence of COVID-19

The influence of COVID-19 on service switching behaviours emerged as a mooring factor category, while also enforcing the push factors during the critical incidents, as the respondents were not reportedly forcefully prevented from using the traditional service locations but were nevertheless affected by the pandemic. This mooring factor category also concerns the emerging reports of how the respondents behaved when faced with the COVID-19 pandemic and the subsequent changes in their everyday activities relating to using retail services. The moderating mooring factor category describing how the influence of COVID-19 had enforced the service switching processes of the respondents can be examined through three subcategories, presented in Table 23, consisting of compliance with restrictions, avoidance of contacts, and limitations of visits.

TABLE 23 Influence of COVID-19

Influence of COVID-19	**Compliance with restrictions**	Motivation to follow restrictions 5; Social distancing 4; Use of face mask 3; Resilience 3; Self-isolation 3; Quarantine 3; Hand hygiene 2
	Avoidance of contacts	Avoidance of human contacts 12; Social distancing 4; Avoidance of crowds 4; Avoidance of interaction 2
	Limitation of visits	Atmosphere 23; Avoiding public places 19; Avoiding visits 19; Decrease of visitations 13; Minimizing visits 7

The mooring factor concerning the compliance with COVID-19 restrictions emerged from the responses detailing how the respondents had responded to the COVID-19 pandemic by complying to restrictions and guidelines when visiting the stores. The respondents described their motivation to follow restrictions (5) while visiting the stores to maintain their ties to the stores by maintaining social distancing (4), self-isolation (3), use of face masks (3), adhering to quarantine (3), and maintaining hand hygiene (2). Another emerging mooring factor moderating service switching processes was resilience (3) towards the changes caused by the pandemic, which had resulted in exceptional changes in the everyday lives of the respondents. Resilience emerged from reports that the respondents were willing to continue the use of traditional retail services even alongside the alternative services. However, although the respondents were able to comply and follow the protective measures, the descriptions of the restrictions also contained push factors, where the restrictive measures had created exhausting and unpleasant service-use experiences.

The avoidance of contacts emerged also as a mooring factor as the respondents reported being able to improve the contagion safety of their shopping trips

by avoiding various contacts while visiting the traditional service locations to maintain the use of the services in stores. The avoidance of human contacts (12), crowds, and interaction (2) such as limiting the interaction with store personnel and other customers by avoiding the busiest hours in the stores, and by enforcing social distancing (4), the respondent narratives described how they could maintain the use of the traditional stores through the avoidance of contacts during the pandemic. However, these contacts still had pushed the respondents to switch to the alternative services where they could access remote service availability and safer service experiences.

The limitation of visits also emerged as a moderating factor, as the use of the service was decreased as the respondents attempted to limit the visits to the stores due to the pandemic, but still wished to keep using the traditional stores, which in turn contributed to the critical incident reports. The pandemic reportedly had created an atmosphere (23) that limited their visitations due to restrictive in-store measures and personal feelings that arose as a response to the pandemic. By limiting their visits to the stores, the respondents also reportedly aimed to avoid visits (19) while avoiding public spaces (19) and decreasing visitations (13) between the service locations from daily to weekly visits for example, even minimizing visits (7) entirely to the associated locations with the risk of contagion. By limiting their visits to the stores, the respondents attained opportunities to gain positive service experiences through the alternative retail services that emerged as pulling factors, while avoiding the risks associated with using the traditional retail service during the pandemic.

7.4.2 Impacts of interaction

The mooring factor category concerning the impacts of interaction on the switching process influences emerged as a twofold factor, which had formed ties for the respondents to the stores through their prior experiences of interacting with the service personnel in stores, while enforcing their service switching intentions that can be reflected through the pull factors to the alternative retail services regarding positive peer influence that had influenced their awareness of the alternative retail services. Table 24 depicts two subcategories for this mooring factor category through interaction with service personnel, and peer influence.

TABLE 24 Impacts of interaction

Impacts of interaction	**Interaction with service personnel**	Opportunity for customer service 5; Provision of customer service 3; Direct interaction 3; Access to expert insight 2; Access to information 2
	Peer influence	Peer interaction 6; Peer reviews 4; Social media influence 2; Gift card 1

Interaction with the service personnel in the traditional store was reported to inhibit the respondents from switching in order to maintain the use of traditional stores through pleasant interaction experiences with the personnel. The

respondents reported that visits to the traditional stores provided an opportunity for customer service (5) and actual provision of customer service (3), which reportedly enabled them to attain direct interaction (3) and access to expert insight (2) to meet their unique needs. This interaction also inhibited the respondents from switching through access to information (2) as the respondents were able to attain desired information in the situational context, although this was not a universal attitude towards personal service interaction in stores as is evident in the push factor reports.

Peer influence as a moderating factor enticed the respondents to consider switching services through the influence of their social peers and the ability to interact with other users through the digital or mobile retail service, such as sharing recipes with their peers and browsing the product reviews. Peer influence influencing the service switching behaviours emerged from critical incident and pull factors reports describing how peer interaction (6) had increased their awareness of the alternative services and their possible benefits and encouraged them to switch. In similar manner, peer reviews (4) offered on the alternative retail services and the social peers provided encouragement to switch to the alternative services through comments and reviews of the desired products. Acquisition of a gift card (1) to the alternative services that was received from the peers also encouraged one respondent to switch, as it was reported to be usable only through the alternative services. Through the social media influence (2), services such as Facebook or Instagram were able to further moderate the service switching behaviours through marketing that was experienced by the respondents, thus increasing their awareness of alternative services.

7.4.3 Attachment to traditional service

The mooring factor category concerning the attachment to traditional service examines how the respondents described feeling discouraged to switch from the traditional stores in their critical incident reports. The attachment of the respondents had reportedly influenced their service switching processes and perceptions of switching to alternative retail services through their prior service experiences and emotional ties to the traditional retail services. Table 25 examines this mooring factor category and inhibiting influences through three subcategories, consisting of habit, previous experience, and the emotional attachment to the traditional service locations.

TABLE 25 Attachment to traditional service

Attachment to traditional service	**Habit**	Routine 10; Normalized use 9; Normalized experience 9; Tradition 3
	Previous experience	Convenience 16; Assurance of met expectations 10; Supported purchase decision 9; Pleasant experience 9; Assurance of met needs 6; Foreseeable experience 5; Quick service 2; Uniform negative experience 1
	Emotional attachment	Convenience 16; Pleasant experience 9; Willingness to support small businesses 2; Inspiration 1

Habit reportedly moderated the service switching behaviours of the respondents as they reported that the use of traditional stores was a normal, everyday process for them to use retail services. Due to routine (10) of using the traditional retail services as a frequent activity, the respondents described that the normalized use (9) and normalized experience (9) tied them to sustain the use of the traditional stores, as the service experiences were predictable through prolonged usage, even being described to be a tradition (3) for respondents to meet their goals and needs for retail services.

Previous experience of using stores also functioned as a moderator for the respondents when switching from the traditional stores. The positive service experiences the respondents had already had with stores reportedly provided them assured benefits of visiting the traditional service locations. Convenience (16) emerged as a mooring factor through reports describing how easy it was to visit the traditional retail services due to the habit of visiting the stores. The traditional stores were also described to be convenient due to close proximity of the stores, enabling quick service (2). The respondents also reported that visiting the traditional store was a pleasant experience (9) that also provided a foreseen experience (5) based on their earlier, repeated experiences with the stores. Previous experience also supported purchase decisions (9), which contributed to the moderating influence of the mooring factor through the visitations to the physical stores and accessing service personnel interaction. This reportedly enforced the assurance of met needs (6) and expectations (10), as the respondents reported that their personal expectations and needs could be met through traditional stores. On the other hand, one respondent also described that the service experiences provided uniform negative experience (1), as the queues were reportedly the same in any store, rendering the service switching pointless from their viewpoint.

Emotional attachment also moderated the switching behaviour of the respondents due to the formed inherent and emotional ties to the traditional service experiences the respondents had created through earlier service-use experiences. These emotional attachments were reported to consist of the associated convenience (16) of visiting the traditional services, which facilitated the pleasant experience (9) the respondents had experienced in the stores. The respondents also reported their willingness to support small businesses (2) that were not affiliated with larger retail chains, which was hindered due to COVID-19 restrictions.

Visiting the stores also gave a respondent inspiration (1) for ideas of what they would like to purchase from the stores.

7.4.4 Personal approaches to alternative services

The mooring factor category concerning the personal approaches of the respondents to the alternative retail services examines the moderating influences the respondents had reported regarding the attractive pull factors, previous experiences, and whether or not they had been aware of the alternative services. This mooring factor category reveals a wide array of attitudes towards the alternative retail services the respondents had held, ranging from positive expectations to prejudices and even negative experiences with the alternative retail services that had influenced their perceptions and expectations of the alternative retail services during the critical incidents. This mooring factor category can be examined in detail through three subcategories, depicted in Table 26, which consist of previous experience of alternative services, service costs, and awareness.

TABLE 26 Personal approaches to alternative services

Personal approaches to alternative services	**Previous experience of alternative services**	Positive attitude for digitalization 18; Experience of using alternative service 10; Impersonal impression 4; Jammed service 4; Marketing messages 1
	Service costs	Service costs 4; Delivery delay 4; Lack of personal interaction 3; Product testing 3; Lack of physical service locations 3; Immobility 2; Recommendation algorithm 1
	Awareness	Unawareness of services 5; Lack of alternative services 4; Lack of marketing 3; Difficult access to information of alternative services 2

The previous experiences the respondents had had with the alternative digital and mobile retail services moderated their switching behaviours in different ways. The respondents reported that they possessed a positive attitude towards digitalization (18) by describing the benefits and attractive features of the alternative retail services in detail. The experience of using alternative service (10) before the reported critical service switching incidents also reportedly provided encouragement for the respondents, thus influencing their switching behaviour in their reports. The respondents also described that the alternative retail services provided impersonal service (4), stating their preference to keep using the traditional stores if the critical incidents had not caused them to switch. The respondents also reported that their earlier experiences with the alternative services had been hindered due to jammed alternative services (4), resulting in slow service experiences. Marketing messages (1) also emerged as a moderating factor from a report where the alternative retail services had created disappointing and negative service experiences through earlier service uses, where the unwarranted

marking messages were perceived to be attempts to get more money from the respondent.

Service costs also emerged as moderating mooring factors with the alternative services, inhibiting the respondents from switching to the alternative services due to the accrued costs of their personal resources that were created by using the alternative retail services. The delivery delays (4) were described to moderate their service switching behaviours, as the respondents described that the delivery delays of the alternative retail services wasted their time, while high service costs (4) inhibited their switching behaviours to save money by avoiding the expensive delivery fees. The respondents reported that the service costs were increased due to lack of physical service locations (3), concerning that because there were no physical stores nearby, the products had to be delivered from further away, which increased the delivery fees. The lack of personal interaction (3) available through the alternative services also moderated the service switching behaviours, as switching from the traditional store would leave out the meaningful interaction processes from the service experiences. The perceived lack of product testing (3) was also described to give the respondents second thoughts about switching as they were unsure whether the product features and quality could meet their expectations without seeing them in person. The prospective personal immobility (2) also moderated the switching behaviours through lack of physical movement and exercise. One respondent reported that they felt that they could not access the fullest selection in the alternative services due to their recommendation algorithms (1), which had hindered their access to new products that were not targeted for them as they could not see them in their recommendations.

The awareness of the alternative services was also reportedly a mooring factor due to the lack of exposure to the existence of the alternative services. The unawareness of services (5) reportedly left the respondents unaware of the alternative retail services that were offered through digital and mobile service channels where the respondents could have switched to from the traditional stores. The lack of marketing (3) was reported to contribute to the lack of awareness of the existence of the alternative services. This also made it difficult to access information of the alternative services (2) and their existence as potential services that they could switch to for the respondents. The lack of alternative services (4) was also described to contribute to their lack of awareness. The respondents reported that they had not been able to switch to alternative services before the reported critical incident experiences in traditional stores, because the alternative services had not existed when they would have otherwise sought out their services. This in turn contributed to the memorability of the critical incidents, as the respondents reportedly became aware of such alternative retail services when seeking out retail service options during the reported critical incidents.

7.4.5 Switching costs

The mooring factor category regarding the switching costs that emerged through the respondent narratives describing how they had felt discouraged to switch

from the traditional stores during the reported critical incidents, and how their perceptions had been influenced by the earlier service experiences in the traditional retail services. These switching costs emerging from the reports described how the respondents had associated the "cost" of switching from the traditional stores to the alternative retail services, which emerged in their reports through descriptions of the benefits and utilities of using the traditional stores when compared to using the alternative retail services. The mooring factor category, depicted in Table 27, examines how the service switching processes had been moderated through three subcategories describing the switching costs through the benefits of traditional service, adoption of alternative service, and support for decision-making in traditional service.

TABLE 27 Switching costs

Switching costs	**Benefits of traditional service**	Availability of products 17; Convenience 16; Close location 12; Alternative options 5; Cheaper prices 2; Reason for going outside 2; Opportunistic finds 2
	Adoption of alternative service	Lack of ease-of-use 8; Stiff experience of use 5; Impersonal impression 4; Lack of patience for planning 1
	Support for decision-making in traditional service	In-person perception 9; Careful familiarization 8; Testing 5; Product comparison 3

The benefits of the traditional services created switching costs for the respondents that moderated their service switching behaviours prospect of missing out on the benefits of visiting the stores, as the respondents described experiencing beneficial and positive service experiences through the traditional stores. One reported benefit of the traditional stories was the availability of products (17) as the respondents were able to ensure product availability as the availability could be seen in person. This in-person experience of the products was also reported to enable the respondents to be able to seek out alternative options (5) and compare them with each other. Visiting the stores also enabled the respondents to make unplanned, yet reportedly not unwanted purchases through opportunistic finds (2). The respondents also reported that they had been able to acquire products with cheaper prices (2) from the traditional stores. The close location (12) of the stores was also described to create a sense of convenience (16) for the respondents, also giving them a reason for going outside (2).

The service adoption processes of the digital and mobile services also created switching costs through difficult usability (8) for the respondents, as they reportedly had to use their personal resources to learn how the digital and mobile services worked, and how they could benefit from them to meet their needs that could have been met through the traditional service-use experiences. The respondents reported that the alternative services gave an impersonal impression (4), describing that while the alternative services were efficient, they seemed cold

for the respondents. The respondents also reported that the stiff experience of use (5) of the alternative services did not impress, which had created a lacking ease-of-use for the respondents, increasing the service adoption threshold. One respondent also described that they simply preferred to visit the traditional stores due to their personal lack of patience for planning (1) their service-use behaviours beforehand.

The support for decision-making in the traditional services also contributed as a mooring factor, as the respondents reported that they could conduct more supported decision-making processes while visiting the traditional stores. The respondents reported that the benefits of using the traditional stores included in-person perception (9) of the products and testing (5) them in the service locations to ensure that the products would meet their needs and match their personal preferences, which enabled product comparison (3) before purchasing. The respondents described that careful familiarization (8) was important for them before making the purchase in order to ensure that they would get personal value from the product for the requested price.

8 DISCUSSION

This chapter summarizes the central contents of this thesis as a whole by first reviewing the objectives, central literature, and results of the research in the first subsection where the research questions are answered in succinct manner. The chapter proceeds with the review of the research methodology concerning the chosen method, collection of data, and the analysis process. The following third subsection presents the scientific implications of the research by reflecting the results to the central theoretical frameworks, which is followed by the final subsection concerning the practical implications of the results.

8.1 The objectives, literature, and results of research

The purpose of this thesis was to examine how the service switching behaviour is affected by critical incidents in service use for Finnish users in the context of traditional, digital, and mobile retail services that may also facilitate the use of cyber-physical services, creating omnichannel service environment in retail services. The retail service context provided a suitable opportunity to examine service switching behaviours in a service environment, where it is possible for Finnish users to engage in comprehensive service-use experiences through different service channels even simultaneously, and what factors may influence their service switching behaviours and the resulting value formation between them and service providers.

The research focus was aimed to inspect the critical incidents, memorable service-use experiences, that occurred in traditional retail service environments, and which had caused the users to switch to the alternative digital retail services. The research focus also extended to inspect the push and pull factors that influenced the service switching behaviours stemming from the critical incidents. Therefore, the research objectives were divided into three parts. These research questions examining the research objectives were:

- What critical incidents have users experienced during retail service use that have caused them to switch retail services from traditional service to digital service channels?
- What pushes users to switch from traditional retail service channels during critical service incidents?
- What pulls users to switch to digital retail service channels during critical incidents?

While the central concepts of this research have been established in earlier studies, a research gap exists even in more recent research concerning how value may be not only co-created but also co-destroyed in retail context during the positive or negative critical incidents that led to actualized service switching behaviour, examined through PPM framework, while focusing on the service experience processes of the users in omnichannel retail service environment. Salo and Frank (2017) and Salo et al. (2020) emphasised how contextually and situationally sensitive the user experiences are during critical incidents, particularly in mobile application, when using different types of services for different purposes, instead of focusing on one field of service. Salo and Frank (2017) in particular emphasized acknowledging the importance of the service experience contexts in their research while Salo et al. (2020) on the other hand focused solely on negative critical incidents with mobile applications, exploring whether users continue or discontinue using the digital services after critical incident experiences.

Newman et al. (2018) presented a point of view from retail services for examining user experiences and how actual user experiences of using the retail applications offered by the retail service providers had influenced their service-use behaviours and perceptions of the provided applications. However, Newman et al. (2020) acknowledged service switching behaviour only as a possible implication of negative service experiences. The service switching behaviours of users in retail service context, although examined by Keaveney (1995) in the nineties, was more recently approached by Singh (2019) by studying how the service-use experiences can influence the users' intentions to either switch or sustain the use of digital online retail services, without applying the PPM framework or examining other the contextual user experiences with other service channels besides online stores.

Verhoef et al. (2017) presented a more expansive perspective on user experiences in retail services by examining how omnichannel retail service environment could facilitate value co-creation through continuous interaction between users and service providers, without acknowledging the prospects of value co-destruction and its possible consequences in the omnichannel retail service context. However, as noted by Lintula et al. (2017b) in their research concerning critical incidents and value co-destruction with augmented reality games, the concept of value co-destruction has been ambiguous until recently in information systems and service research. Echeverri and Skålén (2011, pp. 371) have stated that value co-destruction and its relationship with value co-creation should be

acknowledged when examining the interactive service processes between users and service providers.

The PPM framework was applied in omnichannel retail service context to examine how the users experience using integrated cross-channel services by Li et al. (2018), presenting how the reactions of the users towards integrated cross-channel services could be approached with the pull factors through identity attractiveness, push factors through retailer uncertainty, and mooring factors concerning switching costs. However, Li et al. (2018) applied the PPM framework in their own research context that is not directly comparable with the context of this thesis, examining how the pull factors, instead of attracting the users to switch, help sustain the use of retail services through identity attraction, which in their research has supported user to meet their own needs and wants for the service.

Although the prior research presents gaps, the literature review was formed to create a coherent basis for the research. The review of literature aims to clarify the concept of services and the SDL that gives basis for value formation processes. The concept of service and its connection to information systems science and service research is defined through SDL, and how the traditional, digital, mobile, and cyber-physical services can be exemplified through retail services and omnichannel service environments. The definition of services and the research context gives a basis for approaching the value formation as interaction processes between the users and service providers by defining value co-creation and co-destruction with user value drivers and service value propositions.

By reflecting upon the service experiences influencing value formation processes for the users, the context-sensitive behaviour concerning service switching is defined through the PPM framework, which enables the examination of the various pushing, pulling, and mooring factors that influence the users. This PPM framework is used to form a comprehensive conceptual framework how the service switching behaviour is reflected through the value formation processes with the service value propositions and user value drivers, particularly in retail service context. By defining how the critical incidents can affect the user experiences of using the retail services, as presented in chapter six concerning the literature review of the research methodology, the theoretical frameworks and concepts from the literature could be used to collect data to answer the research questions to meet the objectives of this thesis.

Based on the results, the answer for the primary research question is that the users had experienced diverse memorable service-use experiences with the omnichannel retail service environment in Finnish retail services, which had caused them to switch due to the impact of COVID-19 pandemic, changes in personal lives, service availability issues, unfavourable impacts upon the service experiences, and their personal perceptions of traditional stores, along with the influential awareness and attraction towards the alternative retail services. These answers illustrate how the critical incidents were dependant of the situational context of service use for the users, and how the internal processes and resources of the users contributed to these memorable experiences that were critical for the service switching behaviours.

The answer for the first supplementary research question reveals that the push factors that influenced the service switching behaviours of the users emerged during critical incidents where the service environment in the traditional stores had made it difficult, unpleasant, or even impossible for the users to meet their service-use objectives or gain benefit from visiting the stores without wasting their personal resources. The factors that had pushed the users to switch to alternative retail services centred COVID-19, unpleasant interaction, restricted access, hindered service availability, and unpleasant experiences of using the service in the stores.

The answer for the second supplementary research question illuminates that the influential pull factors emerging from the critical incidents had on the other hand encouraged the users to switch to alternative retail services through perceived beneficial use, attraction, which had emerged from increased awareness and comparison of the benefits of using the retail service channels. The factors that had pulled the respondents to the digital and mobile retail channels focused on the incentives of using services, positive influence from peers, functioning service, availability of services, and positive service experiences attainable through switching to the alternative retail services.

The users had also reported how their switching behaviours were inhibited or facilitated through mooring factors, although the reported critical incidents had resulted in switching of services from stores to alternative services. These emerging mooring factors, while not included in this research focus and thus not approached through a research question, help contextualize the results of the three preceding research questions by providing additional valuable context of how the users had experienced using the various retail service channels. The mooring factors that had moderating impacts on the users centred on the influence of COVID-19, impactful interaction, attachment to stores, personal approach to alternative services, and switching costs accrued from switching retail services.

The emerging mooring factors that present supplementary results for inspecting the enforcing and inhibiting factors surrounding the service switching behaviours of the respondents, the research also discovered additional findings through the qualitative, semi-structured online questionnaire and its answers to question 16, where the respondents were asked to evaluate the nature of the critical service experience incidents that they had reported on a Likert scale from one (very negative) to five (very positive). The results from this evaluation show that the respondents regarded the service switching experiences to be largely beneficial and positive by selecting four on the Likert scale, illustrating that the typical service switching experience was reportedly positive through 23 respondents (38.96%) out of the total of 59 respondents by creating a median of four. The results from the self-evaluations can be examined in Table 28.

TABLE 28 Self-evaluation of the nature of the critical incidents

Scale	1 (very negative)	2 (negative)	3 (neutral)	4 (positive)	5 (very positive)
n	1	2	15	23	18
%	1,70	3,39	25,42	38,98	30,51
Mean	3,94				
Median	4				

However, since the amount of the respondents (n=59) is relatively too limited for deriving significant statistical significances for the results that were collected through qualitative means, these results from the self-evaluations can be utilized in this research context to further emphasize the multifaceted nature of the service experiences during the reported critical incidents, and considerations of the respondent viewpoints of these critical incidents. While the respondents used negatively charged language when describing critical incidents and push factors that had encouraged them to switch, the service switching experience itself may be evaluated to be positive from their perspectives, as they were able to switch to alternative retail services where they could benefit from using retail services in a pleasant manner and on their own terms.

8.2 Review of research method

The research utilized qualitative research methodology through the critical incident technique that was applied to a semi-structured online questionnaire targeting the adult Finnish population to examine their service switching behaviours where the services were switched from traditional stores to alternative retail services, such as mobile applications and other digital services. When planning the research, the focus was placed to examine the critical incidents the users had actually had when visiting stores, which had led them to switch to alternative retail services. In order to approach the execution of the research and its analysis, a critical incident that is central for fulfilling research objective was defined for this thesis as an actual positive or negative service-user experience the respondent had experienced in stores that had led them to switch to alternative retail services. To explore these critical incidents, the methodology for data collection was required to be suitable for the critical incident technique to account for the detailed descriptions of the critical incidents that were crucial for the research to form comprehensive and complete user narrations of the critical incidents, as advised by the guidelines by Gremler (2004, pp. 80).

The research conducted in this thesis shows that the selected qualitative research method of using the critical incident technique in semi-structured online questionnaire was suitable for answering the research objectives by enabling the respondents to report in their own words the nature of the critical incidents, and the pushing and pulling factors that influenced their service switching behaviours that stemmed from the reported critical incidents and their own experiences

of using retail services. Although the research scope did not include mooring factors to be collected to answer the research questions to focus the research efforts, the critical incident technique was able to support the respondents to provide ample information and detail when writing their reports of their service-use experiences that had led them to switch to alternative services from stores, which gave way for the emergence of the moderating mooring factors and the prior experiences and perceptions of the respondents that influenced their critical incident experiences, exemplifying the reported critical incidents and the experiences influenced by the push and pull factors were not universal for everyone.

Research by Bitner et al. (1990) and Keaveney (1995) supported the selection of applying critical incident technique to examine positive or negative service experiences that were significant for the users in the retail context, where the users could interact with service providers through the personnel when considering the value formation processes. The selection of using the critical incident technique in this research context and omnichannel service environment, where the interaction interfaces and opportunities are expanded through technological capabilities when considering value formation processes, further gained support from Salo and Frank (2017) who through their research using online questionnaires emphasized that a single significant incident that was memorable for the user, whether positive or negative, can be used to examine the contextually sensitive situational incidents affecting the interaction processes between the users and service providers.

Although the critical incident technique could have been applied to interviews for data collection thanks to its flexibility as noted by Bott and Tourish (2016, pp. 6), the semi-structured online questionnaire was deemed more appropriate due to COVID-19, which rendered physical face-to-face interviews inadvisable. The remote interviews through digital meeting tools were also considered constrictive for the use of time for the respondents and the researcher. The online, semi-structured questionnaire was thus selected as the most practical and suitable tool for data collection for this research context, as the online tools could facilitate the use of open-ended questions, allowing the respondents to use their own words in their responses, and closed questions for collecting demographic information and contextual information from the users.

Although the critical incident technique used in qualitative, semi-structured online questionnaire has many benefits for the research, such as being a flexible method for understanding the critical incidents and the push and pull factors through the respondents' own words, the methodology and data collection techniques still had important considerations for their application. Gremler (2004, pp. 67) noted that recall bias, where they may have difficulties remembering the selected critical incident in accurate detail, and reinterpretation bias, where the respondents narrate their critical incident experiences inaccurately, pose significant challenges for the researcher and design of the questionnaire. Salo and Frank (2017, pp.9) provided tools for mitigating these biases by offering encouragement for the respondents to take their time to answer in as much detail as possible. Bott and Tourish (2016, pp. 18) also advised to avoid asking for

incident recollections that were older than one year to mitigate these biases, which was applied in questionnaire by asking respondents to report critical incidents they had experienced during the past six months.

The resulting 502 codes, 72 subcategories, 22 categories, and four themes of the critical incidents and push, pull, and mooring factors, were analysed through qualitative content analysis with the support of analysis guidelines given by Gremler (2004) containing four steps to recognize, identify, classify, and describe categories for the four themes of critical incidents, push factors, pull factors, and mooring factors that emerged during the analysis, which were categorized after the three themes to prioritize the use of time and ensure that the research questions could be answered. The content analysis was a suitable analysis technique due to the nature of the data forming large amounts of text gained from 59 respondents, which resulted in colourful narrations and reports that varied in length from simple descriptive sentences to very detailed and winding narratives with multiple sentences. However, the content analysis process was useful for forming results through the coding schemes as well for this thesis, which will be reflected to the theoretical frameworks in the next subsection.

8.3 Implications for theory

This subsection examines the scientific implications of the results discovered in this thesis research. By considering the scientific implications of the results, they can be inspected in the larger context within the information systems sciences and the research field concerning service systems and user behaviours, and how the results can be applied to these research areas to further the scientific research of user behaviours in the context of omnichannel service environments. These implications are also supported with suggested modifications for existing theoretical frameworks to illustrate the contributions and implications of this research.

8.3.1 Implications of research results on PPM framework

The results imply how the critical incidents in service-use experiences, in this context within retail services, can be used to reflect the PPM framework for service switching behaviours presented by Bansal et al. (2005, pp. 101) through diverse factors, the push, pull, and mooring factors, which affect the service switching intentions preceding the actualized service switching behaviour. In this research context, where the focus was set upon the Finnish retail services where the users switched from stores to alternative digital and mobile retail services, the PPM framework by Bansal et al. (2005, pp. 101) can help inspect the reasons behind the service switching behaviours that have stemmed from the critical service experience incidents in complex omnichannel retail service environments.

One scientific implication from the results that concerns the application of PPM framework in service research is the inclusion of the critical incidents that can represent the contextual culmination of significant events during use of

service for the users that have caused the users to switch services, as illustrated in Figure 3. By including the critical incidents to the overarching framework inspecting service switching behaviour, the scale of the service switching process can be illustrated more clearly by depicting incidents that had caused the users to switch, followed by presenting the influential pushing, pulling, and mooring factors affecting the switching intention, and illustrating the results of the service switching behaviour.

The inclusion of critical incidents to the PPM framework can also help contextualize the value formation processes from the user point of view to gain a more coherent understanding of their unique processes and perceptions of their experiences of using the retail services. The implications are reflected to the PPM framework and its components as originally presented by Bansal et al. (2005, pp. 101) with added modification displaying the connection between the critical incidents and the service switching processes in Figure 4.

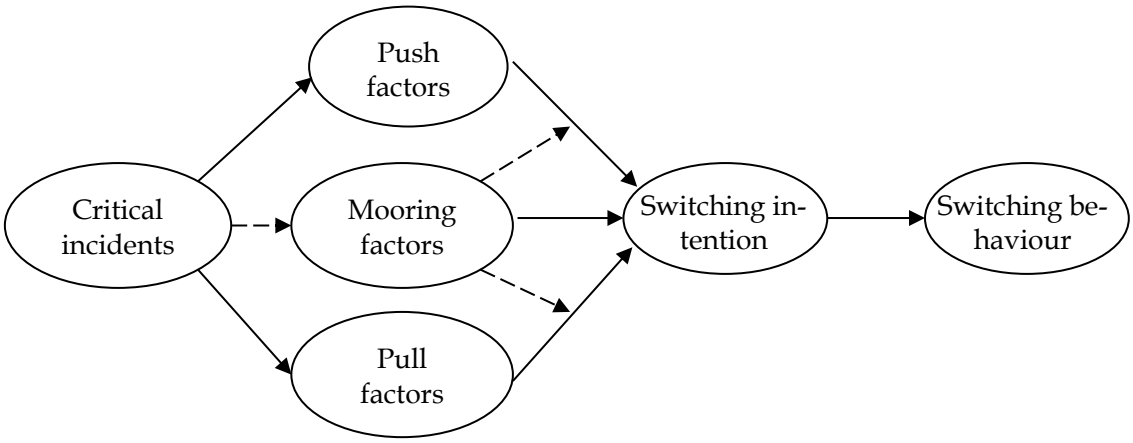

FIGURE 4 Scientific implications on push-pull-mooring framework (modified after Bansal et al., 2005, pp. 101)

Based on the results, the critical incidents that had caused the users to switch from stores to alternative retail services contain diverse, significant experiences that were personally influential for the users, even if the experience was momentary or a culmination of prolonged service-use experiences that had caused them to switch. The results show that the critical incidents can stem from the combinations of the impacts from external service environment and the inherent service-use experiences and perceptions of the service, representing the actual experiences as perceived by the users, and their behaviour resulting from these incidents (Kari et al., 2019). The COVID-19 pandemic, while causing external changes to the retail service environment, also influenced the perceptions of safe and pleasant service for the users, while the changes in personal lives contained more internal influences for the critical incidents that had changed the use of stores. The critical incidents centring the service availability in stores also illustrate how the experiences stemming from external service environments and their use formed significant incidents for the users. The occurrence of low service quality

does not have to be a prolonged incident either, since users are quick to switch services if they become frustrated with the service and its quality, even if the incident is temporary (Salo & Makkonen, 2018).

The critical incident category concerning the service experiences in the stores concerns how the personal service-use experiences can be influential for service switching due to internal and external factors, along with the category concerning the personal views of the stores where the critical incidents originated from resulting perceptions of the experienced use. Meanwhile, the awareness attraction of the alternative service explores how the prior experience, or lack thereof, regarding alternative retail services had provided them significant incidents for switching to alternative services from stores. The service switching behaviours can be considered as critical incidents for the users and service providers alike based on the results, reflecting the statements made by Keaveney (1995, pp. 72, as the users may face service switching costs or attain perceived valuable experiences, while the service providers may either lose users, or gain them, which accrue them either lost revenue or additional costs of acclimating the new users to using of services.

The results further imply that the push factors functioned as encouragement for the users to switch from stores to alternative retail services that emerged through COVID-19 pandemic, interaction with stores, and unpleasant service availability, which along with the hindered availability of the services in stores negatively affected the service experiences to meet their personal objectives for using retail services within their own terms of using their personal resources, which had gained more pressure to meet their objectives for using retail service through fewer visits due to COVID-19 pandemic. This may stem from value co-destruction during service processes and resource misuse, as users are not able to gain optimal benefit from the service usage (Singh, 2019).

8.3.2 Implications of research results on service switching behaviour and value formation

Since the retail service experiences leading to service switching were unique and personal experiences for the users according to their reports, so are the value formation processes that may facilitate the co-creation and co-destruction of value for them. These value formation processes can reflect the push and pull factors, along with the emerging mooring factors when the users switch from traditional stores to alternative retail services as the critical incidents help examine the interaction processes that took place between the users and service providers within the various service interfaces provided through the omnichannel retail service environments.

The service switching behaviour, as explained through the PPM framework after Bansal et al. (2005, pp. 101) will be reflected with the aspects of both co-creative and co-destructive value formation processes through service value propositions and user value drivers as explained through Figure 2 after Tuunanen et al. (2010, pp. 52) in chapter three. This reflection aims to inspect the service switching behaviour factors consisting of the pushing, pulling, and mooring

factors, which can stem from the value formation processes the users experience when using the traditional and alternative retail services. The results imply that the value formation can be affected through service switching processes for the users that can be approached through the push, pull and mooring factors, as summarized in Table 3.

By reflecting the resulting push, pull, and mooring categories to the theoretical framework that combines each of the six aspects of value formation in consumer information systems after Tuunanen et al. (2010, pp. 52) with the push, pull, and mooring factors as presented by Bansal et al. (2005, pp. 101), within the context of Finnish omnichannel retail services, the scientific implications regarding value formation during service switching incidents can be inspected clearly while distinguishing the line between the prior research and results from the thesis research for convenient comparison. This inspection excludes the reflection of the critical incident categories to the framework, as the critical incident categories explore the situations and experiences of significant service incidents of the users, without focusing on the factors that specifically pushed, pulled, or moderated their service switching behaviours.

Since the amount of 15 categories that result from the collective push, pull, and mooring factors falls short of the 18 cells of the theoretical framework, some categories from the results are repeated as they may be applicable to more than one aspect through specific subcategories. The scientific implications of the results towards the service switching behaviour and value formation are presented in Table 29.

TABLE 29 Scientific implications on service switching behaviour and value formation

		Push factors	Pull factors	Mooring factors
Service value propositions	**Identity construction**	Service provider uncertainty: • Restricted access • Hindered availability • Unpleasant experience	Identity attraction, personalized service: • Incentives • Functioning service • Positive experience	Convenience of use, personal switching costs: • Personal approach • Switching costs • Attachment
	Social nature of use	Lack of social interaction: • Unpleasant interaction • Hindered availability • Unpleasant experience	Peer influence: • Positive peer influence • Functioning service	Peer pressure: • Interaction
	Context of use	Dissatisfaction: • COVID-19 • Unpleasant experience	Value perception: • Positive experience • Functioning service • Service availability	Habit: • Attachment • Influence of COVID-19
User value drivers	**Participation in service production**	Lack of commitment • Unpleasant interaction • Unpleasant experience	Information access: • Functioning service • Service availability • Positive experience	Participation costs: • Interaction • Attachment • Switching costs
	Service process experience	Low service quality: • Hindered availability • Restricted access	Comprehensive service experience: • Functioning service • Service availability • Positive experience	Past experience: • Attachment • Personal approach • Switching costs • Interaction
	Goals and outcomes	Negative experience: • COVID-19 • Restricted access	Possibility to attain goals: • Functioning service • Service availability • Positive experience	Switching costs: • Switching costs • Attachment

The service value propositions, as presented by Tuunanen et al. (2010, pp. 52) reflect the factors that the retail service providers should consider concerning value formation processes, in order to facilitate the co-creation of value with the users by considering what could pull the users to the services, or at least moderate their service switching behaviours and create sustained use, even if the users utilize other services simultaneously. The results reflected on service value propositions also provide insight on how the value formation processes were perceived by the users as they interactive with the service providers through their service value propositions during the reported critical incidents.

The supported user identities and personal attachment to the retail services, examined through the identity construction, implies with the research results that the relatability of the retail service to the personal user identity does influence their value formation processes by providing a way to use the retail services with their own capabilities. While the reported misuse of personal resources did not regard the misuse of personal data, the time, energy, and money were reportedly wasted or at risk of being misused without meeting the service-use objectives in stores, as described in restricted service process experience narratives concerning restricted access to stores. Lack of trust also emerged in results through expressed mistrust towards product, supply, and information availabilities that had hindered service experiences in stores. The unpleasant service experiences stemming from lack of trust in service providers also expressed how service provider uncertainty had encouraged the users to switch from stores. These push factors reflect Li et al. (2018) where uncertainty towards service providers reflected possible risks of using retail services for the users through resource misuse.

The users were also pulled to switch to alternative services through personalized service gifts that also could target their user identities with gifts that matched their preferred products. While the tangible incentives pulled them to switch to obtain them, the personalized service attainable through the functioning features enabled the users to tailor searches to their personal needs for information. The alternative service functions also bolstered their identities with access to products and services that fit their inherent values, as also reflected by Inman and Nikolova (2017). The identity support that facilitated positive service experiences also helped the users to meet their personal needs, as also affirmed by Li et al. (2018), and provide targeted service through product recommendations and adaptability to use, affirming user identities by matching their preferences of acquiring products and use of the services.

While the personal switching costs of personal data did not emerge as mooring factors as presented by Salo and Makkonen (2018) in this research context, the mooring factors reflect the convenience of use in this research context, as presented by Newman et al. (2018). However, personal resources, excluding personal data, emerged as mooring factors through service costs for users through reports concerning their personal approaches to alternative services. Besides service costs, convenience also emerged as a switching cost through the implication of losing the benefits of using convenient retail services in stores to meet

their retail service objectives. Convenience also moderated service switching behaviours through attachment to traditional stores with their previous experiences and emotional connections, illustrating how personal and contextually sensitive the service-use experiences are across different retail service channels.

The social nature of use that is reflected to the results implies that although not typically considered as socially involving services, the retail services and value formation are influenced by social factors in traditional and alternative retail services. While the results did not provide information on how word of mouth may push users to switch as presented by Zhou (2011), the lack of personnel interaction in stores, contributing to unpleasant interaction, as presented by Salo and Frank (2017), had pushed them to switch due to inability to benefit from visiting the stores without interacting with the store personnel to meet their service-use objectives. The maintenance of interaction was also described to be unpleasant through lacking interaction with insufficient number of personnel. This also emerged from unpleasant service experience narratives concerning how lacking support of the service experiences emerged from lacklustre personnel interaction and help. The lack of help resulting from lacking interaction with service personnel also hindered the availability of traditional services in stores concerning their service processes, pushing the users to switch.

While the results did not show that the users were pulled to switch services to bolster their social image, as presented by Fei and Bo (2014), the access to comments and service reviews from fellow users pulled them to switch through positive peer influence. The opportunity to share recipes with their social peers also pulled the users to alternative services to maintain their social connections, along with reading comments from other users, which were facilitated by the service features of functioning alternative services.

Peer pressure as a mooring factor did not exactly match the descriptions given by Nykänen et al. (2015) where the focus was placed on service switching between mobile services and how the social connections created between the user and their social networks may inhibit service switching. However, the results show that the mooring factors regarding the impacts of service switching on interaction, particularly with service personnel, can moderate switching behaviours through direct interaction with the service personnel during the face-to-face service encounters.

Context of use is important for value formation for the users, as the context of retail service use may create unpleasant service experiences and promote value co-destruction, while value co-creation may be facilitated by beneficial experiences. Dissatisfaction pushing the users from stores emerged from the COVID-19 pandemic that served as encouragement to switch through the unsatisfactory experiences with the applied restrictions. While the restrictions were described to be lacking, the decreased visitations to avoid transmission created pressure to meet service-use objectives through fever visits, heightening the dissatisfaction if the service-use objectives could not be achieved, which can be reflected with Salo and Makkonen (2018). Dissatisfaction also pushed the users to switch due to

unpleasant service experiences affecting their personal outlooks of stores, where the stores could not meet the needs in a desired manner.

The positive service experiences facilitating value perceptions concern the ability to optimally manage the use of personal resources and gaining support for making decisions through alternative service to use their resources to meet their expectations and wishes. The service functions enabling remote usability and management of resource use through improved decision-making can offer valuable experiences of using services that function in line with their preferences, especially when compared to visiting stores as supported by Schreiner and Hess (2015) and Inman and Nikolova (2017). The remote use of services also pulled the users to switch by enabling the users to benefit from retail services without visiting stores independently from time and location.

Results imply that the habit of using traditional stores moderated the service switching behaviours of the users through routine, tradition and normalized retail service use, The reported previous experiences also emphasized the strength of habit as a mooring factor through assurance of met expectations and needs, and also by uniform negative experiences in stores, implying that the users were habituated to the subpar service experiences, reflecting also Salo and Makkonen (2018). The habit of using stores as a mooring factor also arose through reports how the COVID-19 illustrates the resilience of users and how they still maintained the use of the stores through reported motivations to comply with restrictions.

User value drivers reflect the inherent, influential aspects of user behaviours affecting value formation processes, as presented by Tuunanen (2010, pp. 52), through their interaction with the service providers, which may co-create value when considering the pull factors, or co-destroy value under the influence of push factors, which are realized through the use of retail services. The mooring factors moderating service switching behaviour present possibilities of integrating alternative digital and mobile retail services to the contexts of their service use with the service switching behaviours of the users by facilitating simultaneous use of different service channels in omnichannel retail service environments.

Participation in service production influences value formation processes as well during the critical incidents leading to service switching behaviours, where value could be co-created as the users switch to participate through the pull factors in the service processes of alternative retail services while being moderated by participation costs, which in turn facilitates value co-destruction with the push factors in the traditional stores. The lack of commitment to participate in service production pushed the users to switch through poor maintenance of interaction due to lacking interaction with several personnel members, creating time-consuming visits. The excessive interaction from personnel was also reported to decrease the commitment of the users due to excessive pressure to purchase goods. The lack of commitment also emerged from the reported lack of motivation to visit stores where the users were not able to assure the fulfilment of their service objectives, reflecting Salo and Makkonen (2018).

Functioning alternative service pulled the users by providing access to information necessary for beneficial service-use experiences, where the users could attain support for making decisions. Access to information pulled the users through the supported decision-making that contributed to positive service experiences through searches to ensure they are able to benefit from retail service use, reflecting Fei and Bo (2014). The remote usability of alternative services also pulled the users through improved accessibility of information through location-independent services, where the users can make decisions and plan their service-use behaviours on their own terms.

While the participation costs as mooring factors of the results do not match the participation cost definition concerning digital services by Fei and Bo (2014), participation cost as mooring factor can be applied to this research context of traditional stores. Participation costs that moderated the service switching behaviours concerned the impacts of interaction with the service personnel, and the loss of familiar, established interaction opportunities with the service personnel. The attachment to traditional stores also contained mooring factors concerning participation costs. By switching services, the users described that they would have to trade off their normalized and foreseeable service experiences that could help them meet their needs through convenient and pleasant service processes in stores, reflecting Singh (2019). Similarly, participation cost arose as a mooring factor through reported switching costs concerning the benefits of using stores and the acquired support for decision-making in stores. The prospect of not being able to make decisions with the support of the service processes offered in stores, such as seeing and testing the products in person, was also reflected in the service switching costs.

Service process experiences also influence value formation, where the push factors contribute to value co-destruction through hindered experiences of using the traditional stores. The value co-creation may instead be facilitated with the pull factors by providing desired and beneficial service-use experiences. The switching behaviours relating to service process experiences are moderated partly through the past experiences of using alternative retail services, and awareness of them. Low service quality in stores pushed the users to switch as the service availabilities were hindered through lacking availability of preferred products and offered selections that they would have needed. Low service quality also relates to the access restrictions of stores that restricted their service process experiences as the users were not able to obtain the required and desired products and services on their own terms of using their personal resources. These results reflect Singh (2019) as the service experiences did not meet user expectations.

The comprehensive service experience available through alternative services pulled the users to switch by meeting their utilitarian needs of acquiring products and also by providing enjoyable service experiences in a convenient manner through functioning and availability of alternative service. These results reflect Singh (2019), where the users could also foster their well-being with

positive service experiences and avoid the anxiety of visiting the stores through functioning alternative service with provided service features and functions.

service features and functions.

The past experience functioned as a mooring factor for the users through their previous experiences with stores, causing the users to feel hesitant to switch due to their attachment to stores and their beneficial and convenient service experiences. Personal approaches to alternative services also emerged as mooring factors that inhibited the service switching for the users due to their past experiences with the alternative services. The past experiences of the users were not always extensive, leaving them unaware of the alternative retail services, moderating the service switching behaviours as they were not aware of where they could have switched to in their earlier experiences. The prior experiences concerning the adoption of alternative services formed mooring factors through switching costs, where the service switching was hindered because of difficult or inconvenient service adoption, reflecting Hsieh et al. (2012). The past experience that moderated the service switching behaviours for users also emerged from the social peers as peer influence where they interacted with the users by describing the possible benefits of switching to alternative retail services, which also increased their awareness of these services.

The goals and outcomes of the users discovered through results imply that the value formation may be co-destroyed through push factors where the users are not able to meet their service-use objectives through traditional stores, while the pull factors may facilitate value co-creation by meeting the utilitarian and hedonistic service-use objectives. However, the switching costs associated with service switching can moderate service switching behaviour, particularly if users have had unpleasant experiences of adopting alternative services.

The COVID-19 encouraged the users to switch through their personal approaches to the pandemic, which led to negative experiences in stores due to fear and anxiety, and the unpleasant nature of visiting stores with added restrictions. Frustration from the negative experiences also pushed the users through restrictive access to traditional service where the users were not able to use the services in stores to their desired potential. The negative experiences stemming from unpleasant service experiences pushed the users to switch as they were not able to attain their objectives for using retail services through stores, already reflected by Bansal et al. (2005) and Newman et al. (2018).

The possibility of attaining goals pulled the users to switch through functioning alternative service where the service processes, such as ordering, were easy to use for meeting their retail service objectives. The easy accessibility of the available alternative services also pulled the users to them as the simple usability and easy service adoption facilitated possibilities of meeting the goals of using retail services. The positive service experiences further supported the possibilities of attaining goals while supporting the user identities with personalized and targeted service, creating enjoyable service experiences while decreasing the associated stress of visiting stores. The positive outlook of service that emerged from attaining the objectives also pulled the users through met expectations,

needs, and wishes, creating enjoyable service experiences while meeting their utilitarian goals, as also reflected by Hsieh et al. (2012) and Singh (2019).

While the switching costs that incur when users switch between mobile applications as described by Salo and Makkonen (2018) do not readily fit the context of this research, switching costs were still a prevalent mooring factor for users in retail service context. The switching costs that hindered the switching behaviours of the users by perceived loss of the service benefits provided by the stores reflect how the users perceived the use of stores to be valuable for them for meeting their service-use objectives. The adoption of alternative service also incurred switching costs for users as the service switching was also described to be inconvenient and difficult, costing the users time and effort to begin benefitting from the alternative services, reflecting Bansal and Taylor (1999) and Viswanathan (2005). The attachment to traditional stores also revealed switching costs related to user goals, where their attachment to stores provided support for using the retail services in stores along with pleasant and foreseeable service-use experiences.

8.3.3 Reflection of research results on joint value formation

The results of the research show that the service switching behaviours of the users are diverse and contextually sensitive, where the external service environments and service provider efforts to create valuable services through service value propositions, along with the user value drivers concerning the inherent personal experiences and perceptions of the users, affect the value formation processes through the push, pull and mooring factors, which facilitate value co-creation and co-destruction. Based on the scientific implications of the results, the critical incidents leading to service switching behaviours can be interpreted as interaction processes between users and services through omnichannel service interfaces, which facilitate value formation processes between the users and services, where the value is co-created or co-destroyed. This interaction can be examined through the interconnection between spheres that represent the users and retail services in the context of service switching behaviours of users in Finnish omnichannel retail service environment following the framework by Grönroos and Voima (2013, pp. 142), which illustrates the locus of value formation as introduced in Figure 1.

In order to reflect the research context, the original service provider sphere is divided into two service provider spheres, representing the traditional physical retail service environments, stores, and the alternative digital and mobile retail services. Both of these service provider spheres are contained within the encompassing omnichannel service sphere, illustrating how the stores and alternative services represent the overall retail services the users interact with to meet their retail service objectives, and where the service switching behaviours had begun and ended during the critical incidents. The adjusted framework is illustrated in Figure 5.

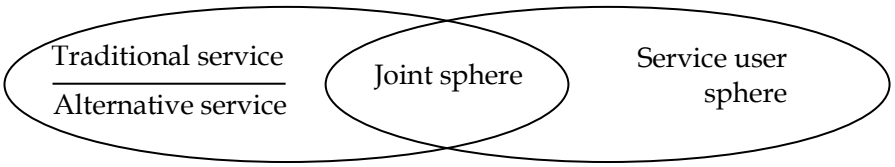

FIGURE 5 Scientific implications on joint value formation (modified after Grönroos and Voima, 2013, pp. 142)

The traditional stores, as a part of an encompassing omnichannel retail service environment, provide physical retail service environments for the users through stores where they can access the service value propositions by seeing and feeling the tangible products, and by engaging in direct and indirect interaction with service providers and the personnel, and even with other users as customers. The results imply that the retail services and service environment provided by the stores did not support valuable resource integration for the users, where the users perceived their own resources to be wasted, resulting in push factors encouraging the users to switch from the stores. However, these critical incidents did not sever the joint processes between the user and stores completely, even during COVID-19 pandemic, as is evident through the mooring factors, revealing that the use of traditional retail services in stores can form deep connections between the users and service providers as the users may interact with stores almost daily to meet their objectives for using retail services.

The alternative retail services provided through digital and mobile services, which are also included in the encompassing omnichannel service environment. With alternative retail services, it is interesting to note that while all of the 59 respondents had had experiences of using different traditional stores, user experiences of using digital and mobile retail services were more varied. However, the results show that the alternative retail services had succeeded in pulling the users to switch to them despite their differing familiarities of using them before the critical incidents through the pull factors, facilitating more beneficial resource integration opportunities between the users and alternative retail service providers. However, the emerging mooring factors also reveal that while the alternative retail services provided more attractive opportunities and support for the users to meet their service-use objectives, the prior experiences of the users and their inherent attitudes can moderate the service switching process to the alternative services, influencing the user perceptions and opinions of the digital and mobile retail services for future use as well.

As the research context of this thesis focuses on the significant user experiences of switching retail services, the results can be applied to illustrate how the complex value formations progressed into co-created or co-destroyed value during the critical incidents leading to service switching behaviours when the users used the traditional stores. The results show that the users engaged with retail services with their personal resources to meet their service-use objectives that were driven by their value drivers. In this research context, these value drivers encompass the service-use activities to fulfil their needs and desires that the users

expected and wanted to meet by using retail services, ranging from purchasing various types of tangible goods along with intangible resources, such as information and assistance, from the service facilities and personnel. The service experiences of the users were further affected by their personal, contextual, and situational factors that are typically inaccessible for retail services providers according to Payne et al. (2008, pp. 87), which had an impact on the push and pull factors during service switching processes in this research through the personal affective processes of the users.

The resulting joint sphere between the service users and retail service providers, containing the traditional stores and alternative digital and mobile retail service providers, is reflected through the connective processes where the interaction among users and retail service providers co-creates or co-destroys value through critical incidents. These processes where the users and the service providers connect to each other are facilitated through the service interfaces between them, such as when the users visit the stores and its interaction interfaces through personnel and other facilities, or use the digital and mobile retail services, where the users and service providers are able to interact with each other.

The results illustrate in conjunction with Grönroos and Voima (2013, pp. 142) that within this research context these interactions between users and retail service providers in stores facilitate the critical incidents resulting in service switching behaviours in users. During these critical incidents the cooperative value formation between the users and traditional services was disruptive, leading to loss of resources for the users, which encouraged them to switch from stores through push factors. These critical incidents also facilitate mutual value co-destruction, in line with Echeverri and Skålén (2011), for the users and retail service providers. The results imply that the users may lose their personal resources and feel worse off during service use to meet their service objectives, while the traditional stores lose the opportunity to interact with the user as a customer and service co-creator and affect their service experiences to provide more beneficial service experiences to sustain the service relationships and future interaction opportunities to offer service value propositions.

Conversely, the critical incidents also facilitate value co-creation between the users and alternative retail service providers by enabling cooperative, mutual interaction for resource integration through pull factors. By switching services as a result of the critical incidents, the users can benefit from the alternative retail service use by fulfilling their retail service-use objectives that also provide pleasant service experiences and support the use of the personal resources, realizing the value of the retail services through their use while the alternative service providers are able to interact with the users and influence their service experiences by providing resources for the users to facilitate superior service experiences.

8.4 Implications for practice

This last subsection presents the practical implications of the results that examine how the research results could be applied in practice for service design and the management of services in the context of retail services. These practical implications can provide vantage points for the service providers and service developers as guidelines who work with or are interested in enhancing their services to the omnichannel retail service environments, particularly in Finnish retail service environment.

8.4.1 Acknowledgement of caveats of retail services through interaction

The first practical implication that emerges from the results and theoretical concepts concerns how the factors that encourage the users to switch to alternative retail services should be acknowledged through interaction between the users and retail service providers. The results imply that the user value drivers for service use are diverse for the users, as exemplified in the research context through omnichannel retail services, where they use traditional stores, cyber-physical services, digital services, and mobile applications to benefit from using the services by meeting their utilitarian needs to fulfil their goals, and hedonistic desires to have pleasant service-use experiences.

As exemplified through the results, when the users are not able to benefit from using the stores in a pleasant manner, the users can feel encouraged to switch to alternative retail services. This can then result in diminished value formation as the services providers lose the opportunity to facilitate the realization of value with the users, implying loss of purchases for example in this research context. Therefore, the retail service providers should aim to acknowledge the possible caveats that pose as push factors that prevent the users to use the retail services in stores to their fullest potential through mutual interaction before the users experience critical incidents. As the inherent service processes of the users that influence their user experiences are inaccessible for the service providers without mutual interaction, the service providers should consider whether the users are able to engage in direct interaction when they need the support of the service providers to facilitate co-creative service-use experiences in stores.

The results imply that these interaction efforts should be applied to direct interaction processes, which were reportedly unpleasant, lacking, or off-putting from the user viewpoint. However, it should be noted that the amount of personnel was diminished in Finnish stores to mitigate the transmission of COVID-19, which in turn is reflected in results showing how the lack of available personnel had decreased interaction opportunities for the users, encouraging them to switch. The service providers should also facilitate the implementation of additional interaction facilities through digital capabilities. To provide accessible interaction opportunities for the users, the use of mobile applications and cyber-physical services could provide new service processes for users in order to interact with the retail service provider in the situational contexts where the support

of service provider is needed, for example when the users need to find information or products when visiting the stores. These interaction processes could be provided through in-application chat or instant messages that are store-specific, for example, to ensure that direct interaction would not hinder value formation due to information inaccuracy. Similar practical implications for interaction were reflected by Grönroos and Voima (2013, pp. 149) for service management. However, in this research context the practical implications could be applied to service design and development to form improved interaction interfaces with service providers' applications and cyber-physical service capabilities to improve interaction processes in stores.

8.4.2 Facilitation of optimal service-use experiences through service design

Another implication for practice that can be formed in this research context is the facilitation of optimal experience through the pull factors that had attracted the users to switch by acknowledging the influential user value drivers in service design. These user value drivers in this research context affect the service switching behaviours through working service functionalities, accessible service, and positive service experiences facilitated value co-creation through beneficial service-use that supported the users to meet their objectives for using retail services. This provides practical implications where the retail service should be designed to meet their situational objectives for their use by enhancing the service offerings in stores and digital service channels, enabling the users to access the services, use the functionalities provided by services, and meet their expectations, needs, and wishes for using the retail service, supporting positive service experiences.

This implies in practice that the retail service should be designed to meet their situational objectives for using retail services by enhancing the service offerings in stores and digital service channels so that the users can access the services, use the functionalities provided by services, and meet their expectations, needs, and wishes for using the retail service, supporting positive service experiences. The service design processes should thus consider the user-centred processes and perceptions of the service and how they interact through it with the service providers. Lemon and Verhoef (2016, pp. 89) suggest using service blueprinting for conceptualizing the journey of the user with the service to design services that facilitate cooperative interaction and superior service experiences for this practical implication, where the service design is focused on users and their service-use experiences instead of service providers who provide the value propositions through service offerings.

The service blueprinting used to design retail services would thus enable the service providers to design and develop services for their service channels from stores to digital services that incorporate the user value drivers from the start of the design process. This further implies that the resulting retail service design could facilitate value formation processes in a superior manner within the competitive omnichannel retail service environments, where switching between service channels and providers is by default easy for the users due to the abundance of alternative service.

8.4.3 Management of the impacts of situational incidents on service-use experiences

The third practical implication concerns the management of service experiences by the service providers during various situational incidents that impact the service-use experiences for the users. The research exemplifies how the critical incidents, while beneficial for the alternative retail services operating through online and mobile retail services, can entail significant implications for the service providers as the users switch from stores to alternative services, creating additional costs for services providers alongside users, as the traditional stores lose the opportunity to influence and support the service-use experiences to affirm the cooperative creation of value-in-use and ensuring that users can obtain their diverse objectives for using the retail services.

The results imply that since the service experience processes and perceptions for the users are influenced by the highly sensitive situational contexts of using the retail services, the service providers should aim to mitigate the significant incidents that influence the service-use experiences the users have when using stores to sustain their connectivity to the service provider through cooperative interaction. By maintaining the connection of users to the service provider services, such as providing safe and unhindered service in stores during COVID-19 pandemic, the service providers may be able to adjust to the situational changes the users may face themselves that the service providers cannot readily account for, which may still present critical incidents where the interactive connection between the users and service providers may be hindered or cut off through switching behaviour.

Therefore, the service providers should maintain at least more than one service channel to facilitate interaction with the users and value formation so that the service providers are not dependent solely on the stores, for example. This also implies that the service providers can then maintain and improve their competitive capabilities in the modern, omnichannel retail service environment as the service providers can offer beneficial service experiences for the users by combining the capabilities of the various retail channels to facilitate value formation and continuous interaction, even if the user switches from stores to alternative digital and mobile retail services. This practical implication is supported by Lusch and Nambisan (2015, pp. 167) who emphasize that by using digital capabilities the service providers can enable resource integration across different service channels that is not limited to physical service environments.

9 CONCLUSIONS

This chapter presents the conclusions of this thesis by first summarizing the research and its objectives, the central literature and theoretical concepts, the research methodology, and resulting findings. The second subsection examines the implications of the results on theory and practice. The following subsection presents the limitations of the research and the generalizability of the results. The fourth subsection proposes suggestions for future research topics.

9.1 Summary of research

This thesis examined the service switching behaviours of the Finnish users in omnichannel retail service environment where the users switched from traditional stores to alternative digital and mobile retail services due to critical incidents. The research objectives were divided into three questions where the primary research question was "what critical incidents have users experienced during retail service use that have caused them to switch retail services from traditional service to digital service channels?". The first supplementary question was "what pushes users to switch from traditional retail service channels during critical service incidents?", while the second supplementary question was "what pulls users to switch to digital retail service channels during critical incidents?". This thesis was constructed with literature review and qualitative research using the critical incident technique through semi-structured online questionnaire with 59 Finnish-speaking respondents. The structure of this thesis was composed in accordance with the guidelines given by the faculty of information technology of the University of Jyväskylä.

The review of literature aimed to conceptualize the central theoretical frameworks and concepts concerning omnichannel retail services, value formation, and service switching behaviour, and how these concepts can be approached in conjunction with each other to form a coherent understanding of the research context. The most central theoretical concepts for this research were the

SDL and omnichannel services, value formation and its co-creation and co-destruction, and push-pull-mooring framework illustrating service switching behaviour.

The literature review illustrated how research concerning service switching behaviour and its impacts on value formation processes in omnichannel service context, furthermore in retail service context, is limited. The literature review also indicated that while information systems and service research literature has developed over time to include users as central factors in service processes with value co-creation, research that regards both co-creation and co-destruction of value between users and service providers is rather scarce. The review of literature formed a basis for the empirical research done in this thesis with the inclusion of examining critical incident research, and its application as a research technique, to guide the research process to explore the critical incidents and the push and pull factors that had caused the users to switch from stores to alternative retail services.

The research objectives and questions of this thesis were approached with qualitative methodology using the critical incident technique to collect context-sensitive information of actual user experiences that they evaluate to be significant for themselves as critical incidents leading them to switch services. The research method was then applied through a semi-structured questionnaire combining open-ended and closed questions that was published online in Finnish. Out of the 75 respondents that had answered the questionnaire, 59 respondents who had switched retail services in the past six months were selected for content analysis. The results and coding schemes can be examined through the 22 tables in chapter seven from Table 6 through Table 27, which include the reported mooring factors that emerged from the user narratives.

The research results illustrated that the reported critical incidents were diverse and context-sensitive experiences that had occurred through accumulated service-use experiences and situational incidents influencing their experiences concerning COVID-19, personal changes, availability issues, influential service experiences, personal views, and the awareness and attraction of alternative services. The results also illuminated the influential push factors through COVID-19, unpleasant interaction, restricted access, hindered availability, and unpleasant experiences that had encouraged the users to switch. The pull factors also addressed how the alternative retail services had pulled the users to switch through incentives, peer influence, functioning service, service availability, and positive experiences. The additional results that emerged from user narratives concerned the mooring factors that moderated service switching behaviours through the influence of COVID-19, interaction, attachment, personal approaches, and switching costs. Another interesting discovery made during data analysis was that the users had evaluated the service switching experiences to be typically positive for them (Table 28).

9.2 Reflection of the implications of research

The theoretical implications for this thesis were formed by reflecting the results to the central theoretical frameworks and concepts, resulting in three major implications for science. The first theoretical implication concerned the research of service switching behaviours through the PPM framework and how the situational factors that cause the service switching process to take place could be clearly contextualized by the inclusion of the critical incidents into the framework. By acknowledging the critical incidents, the users have experienced when examining service switching behaviours, the researcher was able to form a contextual understanding of the significant experiences the user had had when using stores and switching to alternative retail services and reflect the reported push and pull factors to the critical incidents to form a coherent picture on how their service switching processes were formed.

The second theoretical implication reflected how the research results can be clearly inspected in the research context through the service value propositions and user value drivers that influenced the pushing, pulling, and emerging mooring factors of the results. According to these theoretical implications, the service value propositions reflected how the users perceived the interaction between them and service providers to influence value formation as they interacted with the service through their value propositions. The push factors illustrated how value was co-destroyed through the push factors centring uncertainty of the service provider to manage personal resources, mismanagement of interaction with personnel, and dissatisfaction resulting from COVID-19 and unpleasant service experiences when visiting stores. The pull factors examined how value was co-created for them by interacting with service value propositions of the alternative retail services through personalized services and incentives, positive peer interaction and influence, and positive perceptions of value obtained through positive service experiences. The emerging mooring factors proposed how value formation processes formed through service value propositions moderated the service switching behaviours through convenience and personal switching costs of losing the service benefits provided by stores, interaction with service personnel, and habit of visiting stores.

The user value drivers reflected how the inherent influences of the users to use the retail services affected value formation processes. The push factors examined how value was co-destroyed through lack of commitment to visit stores and how stores had hindered this commitment, low service quality of the stores, and negative service-use experiences influenced by COVID-19 and inability to meet service-use objectives. The pull factors proposed how user value drivers co-created value through accessible information, comprehensive service experiences fulfilling utilitarian and hedonistic motivations, and the possibility to attain the goals for using retail service. The mooring factors presented how the inherent user value drivers influencing value formation with alternative service moderated their switching behaviours through participation costs of losing support for

decision-making, past experiences with stores and adoption of alternative retail services and switching costs of missing out on previously beneficial use of stores and difficult use of alternative retail services.

The third theoretical implication extended the concept of joint value formation processes by reflecting the value forming, cooperative interaction processes between service providers and users to the research context. By acknowledging the retail service environment, where the users interact with service providers through multiple service channels, which forms an omnichannel retail service environment, the researcher formed an implication where the interaction between users and service providers during the critical service switching incidents facilitated value co-creation with the alternative retail services, or co-destruction with the traditional stores, and how the emerging mooring factors contextualized the interaction processes through the moderating effects on service switching and value formation.

The results also had three practical implications for retail service providers and developers. The first practical implication presented that the caveats of retail service experiences perceived by the users should be acknowledged by the service providers through interaction. This implication proposed that the direct interaction should be facilitated by service providers to ensure that users are able to benefit from visiting stores by leveraging the technological capabilities of the cyber-physical and mobile services in physical service environments.

The second practical implication proposed that the service providers should facilitate optimal service-use experiences for the users to promote value co-creation even in stores through service design where the users are at the centre of service processes. This implication suggested the use of service blueprinting, which allows the service providers and developers to include users to the service design itself to design services that could facilitate optimal value co-creation through superior service experiences for the users.

The third practical implication concerned the management of the situational incidents that affect service-use experiences by maintaining several service channels, instead of only stores, in order to enhance their abilities to offer service value propositions and interaction interfaces to the users during unforeseen critical incidents, which could result in sudden service switching behaviours. This implication further advocated that the service providers could also affirm their competitive capabilities by offering different service channels, as the alternative services are abundant in the omnichannel retail service environment.

9.3 Limitations of research

While this thesis aimed to pre-emptively address recognized challenges concerning the research method with scientific literature, the possible limitations of the research and the results should be addressed in order to improve the quality of the research. Regarding the limitations to generalizability of the results towards the larger population of Finnish users between the ages 18 and 55 that emerge

from the research, the 59 respondents presented a rather homogenous sample, where all of the respondents were Finnish, used Finnish language, and had lived in Finland in the past six months when answering the questionnaire. Therefore, the cultural differences between the Finnish retail service users and the users representing other cultures, even users who lived in Finland but do not speak Finnish as their first language, may affect the service-use experiences and personal processes of the critical incidents. The age groups were also leaning towards the younger respondents, where 54% of respondents were between the ages 25 and 34, and 25% were between 18 and 24, while the rest of the age groups represented less than 10% of the total respondents. The resulting results and implications reflected thus the user experiences of users who were assumedly familiar with digital technologies or possessed sufficient digital literacy capabilities to use various service channels for retail services when considering the OSF (2019) results regarding the use of digital services.

The distribution of the link to the online questionnaire had also imposed limitations to generalizability concerning the respondents who could be reached through the invitation to participate through e-mail that had been shared through the mailing list of University of Jyväskylä, or who received the shared link from the recipients of the e-mail. Although measures were taken to extend the population of the research beyond university students by encouraging the invitation recipients to freely share the link to the questionnaire, the resulting sample of the research presents such homogeneous characteristics that it should be considered whether further steps should have been taken to distribute the invitation of the online questionnaire.

Furthermore, although the semi-structured online questionnaire only asked for minimal demographic information of the respondents, the factors influencing the respondents such as family status, yearly income, or state of employment could not have been explicitly addressed in the results if the respondent had not described these factors through their reports. These factors could have influenced the respondents and their experiences rather significantly as these factors present concrete limitations of using retail services through available time, energy, and money. Although the 59 respondents were able to provide ample data for qualitative research and analysis, and theoretical saturation was achieved as the responses started to repeat established categories and themes, a larger number of respondents, even five or ten more, might have brought new viewpoints for gathering contextual information of their service switching behaviours, while likely not drastically altering the overarching coding schemes and results.

While the research objectives could be focused to examine the critical incidents and pushing and pulling factors influencing service switching behaviours in Finnish omnichannel service environments, the additional mooring factors that emerged from the user narratives presented limitations to inspect the PPM framework in a completely comprehensive manner, since the data collection was designed to examine the push and pull factors, along with critical incidents, which influenced service switching intentions and behaviours that result in actualized service switching. However, the inclusion of mooring factors to the

research objectives and design of data collection could have possibly improved the examination of these moderating influences, which had provided further contextual information for the results as they had emerged from the responses without prompting from the researcher.

Another limitation concerning the collection and analysis of qualitative textual data that affected the formation of results was the single researcher who did not have prior experiences of conducting qualitative research and analysis in practice to the extent presented in this thesis. While the researcher aimed to be aware of their subjectivity bias when analysing the data through content analysis by reflecting the emerging coding schemes to the collected responses and theoretical frameworks to avoid misinterpretation, the results were made through the personal interpretations and inferences of one researcher. Therefore, it could be stated that the results of the research are not scientifically indefectible or completely unbiased, although efforts were made during data collection and analysis to form as stringent results as possible.

9.4 Suggestions for future research topics

This thesis concludes by presenting suggestions for future research topics to further examine the central concepts and implications this research has presented. These suggestions are based on, but not limited to, the research context concerning the service switching behaviours in omnichannel retail service environments, where the critical incidents during service-use experiences can lead users to switch services with the influence of push and pull factors from stores to alternative retail services.

One suggestion for future research topics concerns the permanence of service switching behaviour that is affected by the service-use experiences during critical incidents. While the service switching experiences were reported to be typically positive (Table 28), examining how the severity of the critical incidents and factors of the PPM framework may influence future service-use expectations and whether the users perceive themselves using the services they had switched from after the critical incidents would be an interesting subject for future research. As alternative services are abundant in the omnichannel retail service environments and the users are generally able to conduct their required retail service processes through the digital and mobile service channels that are typical for traditional stores in Finland, the user-evaluated permanence of the service switching processes could present further insights to the user experiences that occur during critical incidents and how they respond to them. This could also present opportunities to inspect how the value formation processes had been affected during the service switching behaviours that may result for example in permanent or temporary service switching.

The second suggestion for future research concerns the limitations of this thesis to improve future research results. Since resulting sample that was used in this research and content analysis presented limitations to the generalizability of

the results, the future research that applies qualitative methodology and critical incident technique could benefit from a wider sample that could better represent the target population of the research. Therefore, future research that employs similar research methodology to this thesis may benefit from sending invitations to the online questionnaire through various interaction channels, such as social media sites and forums, along with mailing lists.

While the retail service environments provide a service field that comprises physical service environments as stores, cyber-physical services such as smart barcode scanners, digital services such as online stores, and mobile applications that can be offered by service providers, the future research should also consider the examination of service switching behaviours through critical incidents that affect service-use experiences within other service fields as well. This is the third suggestion for future research, as digital service systems rapidly become more prevalent in the lives of the users, taking part in the routine activities such as buying food, preparing meals, and using banking services, for example, it is crucial for service providers to understand how users experience the use of these services to facilitate valuable and beneficial service-use experiences that support their value drivers. Potential service environments that utilize different service systems alongside traditional service channels may be found through healthcare through medical centres, or exercising services via gyms, with their associated service systems that leverage digital and cyber-physical competences.

As implied through the prior research gaps and the theoretical and practical implications of the results, addressing how the push and pull factors, and the emerging mooring factors, affect the service switching behaviours during critical incidents for the users can present research opportunities to examine the complex and context-sensitive service-use experiences that facilitate value formation processes. This also proposes opportunities for the researchers to examine both co-creative and co-destructive value formation processes, providing a comprehensive outlook on how value could be realized through service use in service environments that combine traditional environments with digital, mobile, and cyber-physical service systems.

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APPENDIX 1 ONLINE QUESTIONNAIRE FORM IN FINNISH

Arvon muotoutuminen ja käyttäjien vaihtokäyttäytyminen digitaalisilla kuluttajapalveluilla - Gradukysely

Pakolliset kysymykset merkitty tähdellä (*)

Tervetuloa vastamaan verkkokyselyyn "Arvon muotoutuminen ja käyttäjien vaihtokäyttäytyminen digitaalisilla kuluttajapalveluilla"!

Kerään tämän verkkokyselyn avulla aineistoa pro gradu -tutkielmaani, jossa tutkin, **miksi suomalaiset kuluttajat vaihtavat kaupankäynnin palveluita,** kuten elintarvikekauppoja sekä niiden palveluita.

Kysely on suunnattu erityisesti Suomessa asuville täysi-ikäisille, jotka ovat vaihtaneet kaupankäynnin palveluita perinteistä kaupoista digitaalisiin verkko- tai mobiilipalveluihin ainakin kerran viimeisen kuuden kuukauden aikana.

- **Palvelun vaihdolla** tarkoitetaan tämän tutkimuksen yhteydessä mitä tahansa mieleen jäänyttä tilannetta, joka on johtanut joko pysyvään, tai väliaikaiseen palvelun vaihtoon.
- Tällaisia tilanteita voivat olla esimerkiksi perinteisen kaupankäynnin vaihto digitaaliseen verkkokauppaan ja kotiinkuljetukseen.

Mikäli koet, että sinulla ei ole yhtäkään kokemusta kaupan palvelun vaihdosta viimeisen kuuden kuukauden ajalta, voit sulkea kyselyn sivun.

Halutessasi voit myös liittää kyselyn lopussa sähköpostiosoitteesi, niin annamme sinulle yhden digitaalisen Finnkinon elokuvalipun kiitoksena vastauksistasi! Sähköpostiosoitteen liittäminen on täysin vapaaehtoista, vastauksesi käsitellään tutkimuksessa yhtä lailla, vaikka et lisäisi sähköpostiosoitettasi.

- Elokuvalipun on mahdollista saada, kun olet vastannut jokaiseen avoimeen kysymykseen mahdollisimman kuvaavasti, ja vastauksesi käsittelevät sinun omaa kokemustasi palvelun vaihtamisesta perinteisestä kaupasta digitaalisiin verkko- ja mobiilipalveluihin.
- Pyrin lähettämään lipun sinulle seitsemän päivän sisällä vastauksesi saamisesta.

Kyselyyn vastaaminen kestää noin 5–10 minuuttia, ja voit vastata vain kerran kyselyyn.

Kannustan vastaamaan rauhassa kaikkiin kysymyksiin ja kirjoittamaan mahdollisimman yksityiskohtaisia vastauksia. Kyselyssä ei ole käytössä aikarajaa, joten voit vastata siihen niin kauan kuin haluat.

Jos haluat, voit myös jakaa tämän kyselyn linkkiä eteenpäin kaikille kiinnostuneille!

Kysely on auki 15.01.2021 saakka, mutta kyselyn aukioloa voidaan muokata tarvittaessa.

Tutkimuksen rekisterinpitäjä on tutkielman suorittaja Vilma Toivanen. Tietosuojalain mukainen tietosuojatiedote ja tietosuojailmoitus löytyvät tästä linkistä: [link to content presented in Appendix 2]

Pääset vastaamaan kysymyksiin, mikäli hyväksyt vastaustesi käytön tutkimuksessa. Vastaukset raportoidaan valmiissa tutkielmassa täysin anonyymisti.
Kysely katkeaa, mikäli et hyväksy vastaustesi käyttöä.

Kiitos etukäteen mielenkiinnostasi vastata kyselyyni!
Vilma Toivanen
Jyväskylän yliopisto, tietojärjestelmätiede
[e-mail address]

1. Hyväksytkö, että vastauksiasi käytetään tutkimuksessa? Vastaukset raportoidaan täysin anonyymisti. *
   - o Hyväksyn vastausteni käytön tutkimuksessa.
   - o En hyväksy vastausteni käyttöä tutkimuksessa.

Taustatiedot

2. Sukupuoli *
   - o Nainen
   - o Mies
   - o Muu
   - o En halua vastata
3. Ikäryhmä *
   - o 18–24
   - o 25–34
   - o 35–44
   - o 45–54
   - o 55–64
   - o 65–74
   - o 75–84
   - o 85 tai yli
4. Tämänhetkinen asuinpaikka *
   - o Pääkaupunkiseutu
   - o Kaupunkimainen taajama tai kunta (väkiluku vähintään 15 000)
   - o Taajaan asuttu taajama tai kunta (väkiluku välillä 4 000–15 000)

   - Maaseutumainen taajama tai kunta
   - Asun tällä hetkellä ulkomailla
   - En ole asunut Suomessa viimeisen kuuden kuukauden aikana.
5. Kansalaisuus *
   - Suomalainen
   - Suomen kaksoiskansalainen
   - Muu, mikä?

Avoimet kysymykset

Ole hyvä ja palauta mieleesi sinulle hyvin mieleenpainuneita ja erityisiä tilanteita kaupankäynnin palveluiden käytössä viimeisen kuuden kuukauden aikana, joiden takia olet vaihtanut palvelua perinteisestä kaupasta digitaaliseen verkko- tai mobiilipalveluun.

- Esimerkiksi perinteisen kaupassa asioimisen sijaan ehkä vaihdoit verkko- tai mobiilipalveluun tehdäksesi tilauksen noutoa tai kotiinkuljetusta varten.

Voit pohtia joko yhtä tai useampaa tilannetta.

Ole hyvä ja kerro kokemuksistasi omin sanoin niin kuvaavasti kuin pystyt! Voit myös palata aiemmin vastaamiisi kysymyksiin tällä sivulla.

Kyselyssä ei ole myöskään aikarajaa, joten voit vastata kysymyksiin omalla tahdillasi!

6. Ole hyvä ja valitse niin monta fyysisen ja digitaalisen kaupankäynnin palvelua, kuten elintarvike- ja päivittäistavarapalvelua, joita olet käyttänyt viimeisen kuuden kuukauden sisällä: *
   - K-ryhmän fyysiset kaupat (Citymarket, K-Market, ym.)
   - K-ruoka -mobiilisovellus
   - K-ryhmän verkkokauppa (K-Ruoka, K-RuokaPro, ym.)
   - S-ryhmän fyysiset kaupat (Prisma, S-Market, ym.)
   - S-mobiili -mobiilisovellus
   - S-ryhmän verkkokauppa (Foodie.fi)
   - Lidl
   - Lidl Plus -mobiilisovellus
   - Muu verkkokauppa (esim. Fiksuruoka, Kauppahalli24, kotiinkuljetuspalvelut ym.)
   - Minimani
   - Tokmanni
   - HalpaHalli
   - Älykärry (esim. Smartcart)
   - Käsinkannettava viivakoodin lukija
   - Muu, mikä?

7. Mistä perinteisen kaupan palvelusta vaihdoit pois? Mihin digitaaliseen verkko- tai mobiilipalveluun vaihdoit? Voit myös kertoa kauppojen nimet, jos muistat ne. *
8. Minkä syyn takia asioit kyseisessä perinteisessä kaupassa ennen palvelun vaihtamista? *
9. Mikä sai sinut vaihtamaan palvelua perinteisestä kaupasta digitaaliseen verkko- tai mobiilipalveluun? Kuvaile omin sanoin mahdollisimman tarkasti: Mitä palvelun vaihdossa tapahtui? *
10. Mikä sai sinut tarkalleen ottaen vaihtamaan palvelua? Ole hyvä ja pohdi, oliko **digitaalisessa verkko- tai mobiilipalvelussa** jotain, joka houkutteli sinua vaihtamaan pois perinteisestä kaupasta? Voit valita useamman vaihtoehdon. *
    - o Verkko- tai mobiilipalvelu oli sinulle parempi vaihtoehto koronaviruspandemian takia.
    - o Verkko- tai mobiilipalvelu pystyi vastaamaan tarpeisiisi paremmin.
    - o Verkko- tai mobiilipalvelu pystyi tarjoamaan henkilökohtaisempaa palvelua.
    - o Vaihtopäätöksesi sai vaikutteita palveluiden käyttäjien kanssa kommunikoimisesta.
    - o Verkko- tai mobiilipalvelu vaikutti sinusta hyödyllisemmältä tai miellyttävämmältä käyttää.
    - o Verkko- tai mobiilipalvelu vaikutti sinusta houkuttelevammalta vaihtoehdolta.
    - o Pääsit paremmin käsiksi sinulle tarpeellisiin tietoihin verkko- tai mobiilipalvelun avulla.
    - o Muu, mikä?
11. Ole hyvä ja kerro omin sanoin niin kuvaavasti kuin voit: Millä tavoin **digitaalinen verkko- tai mobiilipalvelu** houkutteli sinua vaihtamaan pois perinteisestä kaupasta? *
    - Voit käyttää pohdinnan tukena edeltävässä kysymyksessä valitsemiasi houkuttelevia ominaisuuksia digitaalisessa verkko- tai mobiilipalvelussa, johon vaihdoit perinteisestä kaupasta.
12. Ole hyvä ja pohdi myös, oliko **perinteisessä kaupan palvelussa jotain**, joka kannusti sinua vaihtamaan digitaaliseen verkko- tai mobiilipalveluun? Voit valita useamman vaihtoehdon.
    - o Perinteisen kaupan palvelu ei kyennyt vastaamaan odotuksiisi.
    - o Palvelu perinteisessä kaupassa oli epätyydyttävää.
    - o Sitoutumisesi perinteisessä kaupassa käyntiin oli heikentynyt.
    - o Vuorovaikutus perinteisen kaupan kanssa, esimerkiksi henkilöstön kanssa, oli puutteellista.
    - o Perinteisen kaupan palvelun laatu oli sinusta huonoa.
    - o Perinteisen kaupan palvelun vaihto sai kannustetta koronaviruspandemiasta.

- Perinteisessä kaupan palvelussa oli hankaluuksia: luottamus palveluun oli esimerkiksi vähentynyt.
- Muu, mikä?

13. Ole hyvä ja kerro omin sanoin niin kuvaavasti kuin voit: Koitko, että **perinteisessä kaupan palvelussa** oli jotain, joka kannusti sinua vaihtamaan digitaaliseen verkko- tai mobiilipalveluun? *
    - Voit käyttää pohdinnan tukena edeltävässä kysymyksessä valitsemiasi kannustimia, jotka johtivat palvelun vaihtoon perinteisestä kaupasta digitaaliseen verkko- ja mobiilipalveluun.
14. Mikä teki palvelun vaihdosta sinulle mieleenpainuvan tai erityisen merkittävän, kun vaihdoit perinteisestä kaupasta digitaaliseen mobiili- tai verkkopalveluun? *
15. Miltä sinusta tuntui, kun vaihdoit palvelua kaupasta digitaaliseen verkko- tai mobiilipalveluun? *
16. Kuinka myönteisenä tai kielteisenä tilanteena koit palvelun vaihtamisen, kun vaihdoit pois perinteisestä kaupasta? *

Valitse itsellesi sopiva numero janasta, jossa koit vaihtamisen

1 = erittäin kielteisenä tilanteena
3 = neutraalina tilanteena
5 = erittäin myönteisenä tilanteena.

Erittäin kielteisenä	1	2	3	4	5	Erittäin myönteisenä
	◯	◯	◯	◯	◯	

17. Haluaisitko saada kiitoksena kyselyyn vastaamisesta yhden digitaalisen Finnkinon elokuvalipun? Ole hyvä ja kirjoita sähköpostiosoitteesi alla olevaan kenttään, ja tarkista että olet kirjoittanut sen oikein. Jos et halua elokuvalippua, voit jättää vastaamatta tähän kysymykseen.

APPENDIX 2 RESEARCH NOTIFICATION AND DATA PRIVACY NOTICE IN FINNISH

JYVÄSKYLÄN YLIOPISTO

INFORMAATIOTEKNOLOGIAN TIEDEKUNTA

26.11.2020

TIEDOTE TUTKIMUKSESTA

Tutkimuksen nimi ja rekisterinpitäjä

Tutkimuksen nimi: Arvon muotoutuminen ja käyttäjien vaihtokäyttäytyminen digitaalisilla kuluttajapalveluilla (pro gradu -tutkielma)

Rekisterinpitäjä: Vilma Toivanen

Pyyntö osallistua tutkimukseen

Sinua pyydetään mukaan tutkimukseen, jossa selvitetään, miksi suomalaiset käyttäjät vaihtavat kaupankäynnin palvelua, kuten elintarvikekauppoja, perinteisestä kaupasta digitaalisiin verkko- ja mobiilipalveluihin.

Sinua pyydetään tutkimukseen, koska olet erittäin todennäköisesti hyödyntänyt erilaisia kaupankäynnin palveluita, asut Suomessa, ja olet osoittanut kiinnostusta vastata tähän kyselyyn. Tämä tiedote kuvaa tutkimusta ja siihen osallistumista. Liitteessä on kerrottu henkilötietojen käsittelystä.

Mukaan pyydetään alustavasti vähintään 50 tutkittavaa, mutta vastauksia pyritään saamaan niin monelta henkilöiltä kuin mahdollista.

Vapaaehtoisuus

Tähän tutkimukseen osallistuminen on vapaaehtoista. Voit kieltäytyä osallistumasta tutkimukseen tai keskeyttää osallistumisen milloin tahansa.

Tutkimuksen kulku

Kyselytutkimuksen avulla tutkitaan niitä merkittäviä, Sinulle itsellesi mieleen jääneitä kokemuksia, joiden takia olet vaihtanut kaupankäynnin palvelua

perinteisestä kaupasta digitaalisiin verkko- ja mobiilipalveluihin. Tutkimuksessa myös tarkastellaan, millaisia luotaantyöntäviä ja puoleensavetäviä kokemuksia Sinulla on ollut palvelun vaihdossa. Kyselytutkimus toteutetaan joulukuussa 2020 ja tammikuussa 2021, ja itse tutkimus kestää kevään 2021.

Kyselyyn vastaaminen kestää noin 5–10 minuuttia.

Tutkimuksen kustannukset

Tutkimukseen osallistumisesta ei makseta palkkiota.

Sinä voit vapaaehtoisesti ilmoittaa halukkuutesi saada digitaalisen Finnkinon elokuvalipun lisäämällä sähköpostiosoitteesi kyselyyn avointen kysymysten jälkeen.
Tutkimus suoritetaan osana Vilma Toivasen pro gradu -tutkielmaa informaatioteknologian tiedekunnassa Jyväskylän yliopistossa, jonka ohjaajina toimivat Tuure Tuunanen ja Markus Salo.

Tutkimustuloksista tiedottaminen ja tutkimustulokset

Tutkimustulokset julkaistaan pro gradu -tutkielmassa. Tutkimuksesta valmistuu pro gradu -tutkielma, joka julkaistaan ja arkistoidaan Jyväskylän yliopiston julkaisuarkistossa (JYX).

Tutkittavien vakuutusturva

Tutkittavan on hyvä olla tietoinen siitä, että Jyväskylän yliopiston henkilökunta ja toiminta on vakuutettu. Vakuutus sisältää potilasvakuutuksen, toiminnanvastuuvakuutuksen ja vapaaehtoisen tapaturmavakuutuksen. Tutkimuksissa tutkittavat (koehenkilöt) on vakuutettu tutkimuksen ajan ulkoisen syyn aiheuttamien tapaturmien, vahinkojen ja vammojen varalta. Tapaturmavakuutus on voimassa mittauksissa ja niihin välittömästi liittyvillä matkoilla. Tapaturman lisäksi korvataan vakuutetun erityisen ja yksittäisen voimanponnistuksen ja liikkeen välittömästi aiheuttama lihaksen tai jänteen venähdysvamma, johon on annettu lääkärinhoitoa 14 vuorokauden kuluessa vammautumisesta. Korvausta maksetaan enintään kuuden viikon ajan venähdysvamman syntymisestä. Voimanponnistuksen ja liikkeen aiheuttaman venähdysvamman hoitokuluina ei korvata magneettitutkimusta eikä leikkaustoimenpiteitä.

Lisätietojen antajan yhteystiedot

Vilma Toivanen
Maisteriopiskelija
Tietojärjestelmätiede, informaatioteknologian tiedekunta, Jyväskylän yliopisto
[e-mail address]

Tuure Tuunanen
Ohjaaja
Varadekaani, professori, tietojärjestelmätiede, value creation for cyber-physical systems and services (CPSS), Jyväskylän yliopisto
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JYVÄSKYLÄN YLIOPISTO

INFORMAATIOTEKNOLOGIAN TIEDEKUNTA

26.11.2020

Kuvaus henkilötietojen käsittelystä tieteellisessä tutkimuksessa (tietosuojailmoitus EU (679/2016) 13, 14, 30 artikla)

1. **Jyväskylän yliopiston informaatioteknologian tiedekunnan pro gradu -tutkielman kyselytutkimuksessa "Arvon muotoutuminen ja käyttäjien vaihtokäyttäytyminen digitaalisilla kuluttajapalveluilla" käsiteltävät henkilötiedot**

Tutkimuksessa Sinusta kerätään seuraavia henkilötietoja: Sähköpostiosoite, joka kerätään vain vapaavalintaista digitaalista elokuvalipun jakamista varten. Sitoudun käyttämään tietoa pelkästään elokuvalippujen jakamiseen sähköpostitse ja lupaan hävittää tiedon tämän jälkeen.

Tutkimuksessa Sinusta kerätään henkilötietoina myös epäsuoria tunnisteita, kuten sukupuoli, ikäryhmä, oletko Suomen kansalainen, tämänhetkinen asumispaikka sekä käytetyt kaupankäynnin palvelut. Tutkimusaineisto pseudonymisoidaan aineiston perustamisvaiheessa, ja tulokset raportoidaan julkaistussa tutkielmassa anonyymisti. Henkilötietoja ei luovuteta kolmansille osapuolille.

Tämä tietosuojailmoitus on annettu tutkittaville suoran linkin välityksellä sähköisessä kyselylomakkeessa Webropol -kyselyohjelmistossa.

2. **Henkilötietojen käsittelyn oikeudellinen peruste tutkimuksessa/arkistoinnissa**

Käsittely on tarpeen tieteellistä tai historiallista tutkimusta taikka tilastointia varten ja se on oikeasuhtaista, sillä tavoiteltuun yleisen edun mukaiseen tavoitteeseen nähden (tietosuojalaki 4.1 § 3-kohta).

Henkilötietojen siirto EU/ETA ulkopuolelle

Tutkimuksessa tietojasi ei siirretä EU/ETA-alueen ulkopuolelle.

Henkilötietojen suojaaminen

Henkilötietojen käsittely tässä tutkimuksessa perustuu asianmukaiseen tutkimussuunnitelmaan ja tutkimuksella on vastuuhenkilö. Henkilötietojasi käytetään ja luovutetaan vain historiallista/ tieteellistä tutkimusta taikka muuta

yhteensopivaa tarkoitusta varten (tilastointi) sekä muutoinkin toimitaan niin, että Sinua koskevat tiedot eivät paljastu ulkopuolisille.

Tunnistettavuuden poistaminen

Suorat tunnistetiedot poistetaan suojatoimena aineiston perustamisvaiheessa (pseudonymisoitu aineisto, jolloin tunnistettavuuteen voidaan palata koodin tai vastaavan tiedon avulla ja aineistoon voidaan yhdistää uusia tietoja).

Tutkimuksessa käsiteltävät henkilötiedot suojataan

☒käyttäjätunnuksella☒ salasanalla☒muulla tavoin, miten: henkilötietoja, sähköpostiosoitetta, käytetään pelkästään vapaavalintaisen digitaalisen elokuvalipun jakamista varten, eikä sitä käytetä osana tutkimusaineistoa.

Tutkimuksesta on tehty **erillinen tietosuojan vaikutustenarvio**/tietosuojavastaavaa on kuultu vaikutustenarvioinnista

☐Kyllä

☒Ei, koska tämän tutkimuksen vastuullinen johtaja on tarkastanut, ettei vaikutustenarviointi ole pakollinen.

HENKILÖTIETOJEN KÄSITTELY TUTKIMUKSEN **PÄÄTTYMISEN JÄLKEEN**

☒Tutkimusrekisteri hävitetään (03.2021 mennessä)

Rekisterinpitäjä(t) ja tutkimuksen tekijä(t)

Tämän tutkimuksen rekisterinpitäjä on:

Vilma Toivanen (tutkimus tehdään omaan lukuun pro gradu -tutkielmana). [e-mail address]. Tutkielmaa ohjaavat Tuure Tuunanen ja Markus Salo.

Tutkimuksen vastuullinen johtaja: Vilma Toivanen, [e-mail address].

Yhteyshenkilö(t): Tuure Tuunanen, [phone number], [e-mail address]
Markus Salo, [e-mail address]

Tutkimuksen suorittaja(t): Vilma Toivanen (pro gradu -tutkielman suorittaja, maisteriopiskelija).

Tässä tutkimuksessa henkilötietojen käsittelijöitä ovat: Webropol Oy (Webropol-kyselyohjelmisto).

Rekisteröidyn oikeudet

<u>Oikeus saada pääsy tietoihin (tietosuoja-asetuksen 15 artikla)</u>

Sinulla on oikeus saada tieto siitä, käsitelläänkö henkilötietojasi ja mitä henkilötietojasi käsitellään. Voit myös halutessasi pyytää jäljennöksen käsiteltävistä henkilötiedoista.

Oikeus tietojen oikaisemiseen (tietosuoja-asetuksen 16 artikla)
Jos käsiteltävissä henkilötiedoissasi on epätarkkuuksia tai virheitä, sinulla on oikeus pyytää niiden oikaisua tai täydennystä.

Oikeus tietojen poistamiseen (tietosuoja-asetuksen 17 artikla)
Sinulla on oikeus vaatia henkilötietojesi poistamista tietyissä tapauksissa. Oikeutta tietojen poistamiseen ei kuitenkaan ole, jos tietojen poistaminen estää tai vaikeuttaa suuresti käsittelyn tarkoituksen toteutumista tieteellisessä tutkimuksessa.

Oikeus käsittelyn rajoittamiseen (tietosuoja-asetuksen 18 artikla)
Sinulla on oikeus henkilötietojesi käsittelyn rajoittamiseen tietyissä tilanteissa kuten, jos kiistät henkilötietojesi paikkansapitävyyden.

Vastustamisoikeus (tietosuoja-asetuksen 21 artikla)
Sinulla on oikeus vastustaa henkilötietojesi käsittelyä, jos käsittely perustuu yleiseen etuun tai oikeutettuun etuun. Tällöin yliopisto ei voi käsitellä henkilötietojasi, paitsi jos se voi osoittaa, että käsittelyyn on olemassa huomattavan tärkeä ja perusteltu syy, joka syrjäyttää oikeutesi.

Oikeuksista poikkeaminen
Tässä kuvatuista oikeuksista saatetaan tietyissä yksittäistapauksissa poiketa tietosuoja-asetuksessa ja Suomen tietosuojalaissa säädetyillä perusteilla siltä osin, kuin oikeudet estävät tieteellisen tai historiallisen tutkimustarkoituksen tai tilastollisen tarkoituksen saavuttamisen tai vaikeuttavat sitä suuresti. Tarvetta poiketa oikeuksista arvioidaan aina tapauskohtaisesti.

Profilointi ja automatisoitu päätöksenteko

Tutkimuksessa henkilötietojasi ei käytetä automaattiseen päätöksentekoon. Tutkimuksessa henkilötietojen käsittelyn tarkoituksena ei ole henkilökohtaisten ominaisuuksiesi arviointi, ts. profilointi vaan henkilötietojasi ja ominaisuuksia arvioidaan laajemman tieteellisen tutkimuksen näkökulmasta.

Rekisteröidyn oikeuksien toteuttaminen
Jos sinulla on kysyttävää rekisteröidyn oikeuksista, voit olla yhteydessä tutkimuksen vastuulliseen johtajaan ja rekisterinpitäjään, sekä tutkielman ohjaajiin: Vilma Toivanen, [e-mail address]
Pro gradu –tutkielman tietoturvaloukkauksesta tai sen epäilystä ilmoittaminen Jyväskylän yliopistolle
https://www.jyu.fi/fi/yliopisto/tietosuojailmoitus/ilmoita-tietoturvaloukkauksesta

Sinulla on oikeus tehdä valitus erityisesti vakinaisen asuin- tai työpaikkasi sijainnin mukaiselle valvontaviranomaiselle, mikäli katsot, että henkilötietojen käsittelyssä rikotaan EU:n yleistä tietosuoja-asetusta (EU) 2016/679. Suomessa valvontaviranomainen on tietosuojavaltuutettu.

Tietosuojavaltuutetun toimisto:
Lintulahdenkuja 4, 00530 Helsinki, PL 800, 00531 Helsinki
Puhelinvaihde: 029 566 6700
Sähköposti (kirjaamo): tietosuoja(at)om.fi