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콘택트-프리 쇼핑으로의 전환의도 및 영향요인

- 푸쉬-풀-무어링 이론을 중심으로 -

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Influencing Factors and Switching Intention to Contact-free Shopping

- Focusing on Push-Pull-Mooring Theory -

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ABSTRACT

This study focuses on the contact-free shopping switching behavior exhibited by consumers of fashion during the Covid-19 pandemic. It verifies the social and environmental factors affecting the switching behavior of consumers based on the push-pull-mooring theory. A statistical analysis was conducted with data from Korean consumers who have experience purchasing fashion products through contact-free shopping during the Covid-19 period. The results show that the pull effect, which has a positive effect in the direction of contact-free shopping, had a greater impact than the push effect, which has a negative effect, or causes consumers to move away from existing contact shopping. The experiential value offered by fashion merchandisers particularly impacted the relationship between factors and switching intention. This phenomenon provides an important clue for the fashion industry in determining the direction to take in a post-Covid society, in presenting new marketing campaigns, and in finding the best way to revitalize in-person fashion shopping.

Key words: contact-free shopping(콘택트-프리 쇼핑), fashion marketing(패션마케팅), post Covid-19(포스트 Covid-19), push-pull-mooring theory(푸쉬-풀-무어링 이론), switching intention(전환의도)

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I. Introduction

Covid-19 has brought new routines of life by accelerating the contact-free economy, expanding digital life, and increasing the number of people working from home, resulting in new digital business opportunities in all sectors that are not yet digitized. It has also increased contact-free online logistics and shopping. Moreover, the off-line sales crisis of fashion brands that preceded Covid-19 became even worse due to the pandemic(Moon, Choe, & Song, 2021), and many consumers choose contact-free services and activities in shopping to avoid making unnecessary contact and wasting time(Kim, 2020). These changes imply that the digitization of the fashion industry, which has been centered on offline expansion, might be inevitable. According to the mobile shopping trend report 2020, a survey conducted on Korean 1,000 men and women in their 20s to 40s in July 2020 showed that 92.1% of consumers made online purchases using smartphones in the last 3 months. Consumers who did not make offline purchases were asked why, and 62.8% responded that they 'avoided going out due to Covid-19'. In addition to mobile shopping, other contact-free methods such as online shopping on personal computers(PCs) and home shopping purchases by phone have also increased, raising the need for long-term insight for the post Covid-19 era. Accordingly, new strategic measures are needed based on changes in consumers before and after Covid-19. As such, consumer awareness and behavior can be changed and determined by current situations, such as the changing social and natural environments(Bandura, 1991; Moon et al., 2021), and thus online shopping channels must also keep an eye on the changing consumer patterns.

However, fashion-related studies conducted around Covid-19 mostly focused on creating new customer values(Lee & Chow, 2020), such as convenience and efficiency through technological innovation from the technological perspective of digital services(Lee & Lee, 2020). No study has verified the change in consumer awareness about Contact/Contact-free methods from their perspective and analyzed factors affecting their switching behavior. Therefore, this study examines consumer awareness due to these social changes, using the means-end chain theory and laddering technique, and verifies factors affecting switching intention and behavior of consumers in shopping channels based on the factors derived as well as the push-pull-mooring(PPM) theory. In this study, the factors extracted from various previous studies were combined with the PPM theory to examine the influence of each factor on the intention to switch to contact-free shopping. This is expected to be able to suggest a marketing plan for revitalizing efficient contact and contact-free shopping for consumers in the post Covid-19 era and the direction the fashion industry should take in the future.

II. Literature Review

1. Contact-free Shopping

1) Definition of Contact-free

Contact-free is a concept more commonly referred to in Korea as 'Untact'. This term refers to minimizing contact with others when purchasing goods or services, and it is also used as

an 'untact marketing' or 'untact service'(Kim, Choi, Cho, & Yang, 2020). With the increase in contact-free consumption that resulted from 'social distancing' during the Covid-19 crisis, the service center shifted from an offline to an online setting(Kim et al., 2020). Thus, contactless consumption has become more prevalent in daily life, and it is expected that consumers' intentions and actions will convert to contactless methods as well. In prior studies, untact services were analyzed from the perspective of digital services, which focused on creating new customer values, such as convenience and efficiency, through technological innovation(Lee & Lee, 2020).

In contrast to Korea, where the word 'untact' is commonly used, papers published in international journals and media in the early days of the Covid-19 pandemic used such terms as "Contact-free"(Hutt, 2020; Sneader & Singhal, 2020), "Contactless"(Cottrell, 2021; Payments Journal, 2020), and "Zero-Contact"(Bird, 2020; Park, An, Song, & Chung, 2022) instead of 'untact'. In light of this, this study intends to use the generally applicable term of 'contact-free'.

2) Operational Definition of Contact-free Shopping

According to Jun & Kim(2020), the contact-free industry can be divided into 'contactless service's that minimize face-to-face interactions, and 'unmanned services' that replace human labor with digital technology. Contact shopping and contact-free shopping, which are the subject of this study, imply concepts that differ from the meaning of existing offline and online shopping. As a result of Covid-19, we were frequently exposed to words like contact and contact-free. The existing online shopping is defined as the act of purchasing by consumers who transact goods and services in online shopping malls using PCs and mobile networks. While such online shopping is also contact-free, it emphasizes the 'using a PC or mobile network' aspect. Nevertheless, contact shopping mentioned in this study does not only refer to offline shopping, but also encompasses a context where consumers must physically "interact face-to-face and contact" with store clerks and other consumers while shopping. Additionally, contact-free shopping does not just mean online shopping, but also includes the context in which shoppers do not need to physically "interact face-to-face and contact" with store clerks or other consumers while shopping.

As such, this study aims to conceptualize contact-free shopping more appropriately by understanding contact-free shopping from a technical point of view and expanding the concept to the context that consumers face. Therefore, contact-free shopping which has been used in various studies was used not in a methodological view of simple convenience such as online or mobile which consumers have been using, but with a definition as a contact-free view with unique circumstances such as Covid-19.

2. Push-Pull-Mooring(PPM) Theory

1) Concept of PPM

In the PPM theory, push factors refer to negative factors(push effect) that drive people from their old residences to new ones, whereas pull factors refer to positive factors(pull effect) that attract them to a new destination(Bansal &

Taylor, 2002). As such, the PPM theory is based on the push-pull concept in the law of migration presented to explain the theories of migration(Ravenstein, 1885). However, there have been arguments that the interaction between the push and pull factors is not enough to explain human migration, which led to the addition of the mooring effect for additional explanation (Bansal, Taylor, & St. James, 2005; Hsieh, Hsieh, Chiu, & Feng, 2012). Explained as 'intervening obstacles' in earlier studies along with the push-pull concept, the mooring effect refers to situational factors of individuals that either facilitate or inhibit the migration decision. The mooring effect is a variable related to individual situations that include an individual's lifestyle or psychological factors, and social situations including culture, environment, or social impacts, supplementing the push and pull factors in the PPM theory(Hsieh et al., 2012; Moon, 1995).

<Table 1> Previous Studies about Shopping Channel Applying the PPM Theory

Researcher	Composition			
	Independent variable			Dependent variable
	Push	Pull	Mooring	
Chang, Wong, & Li(2017)	Information-seeking behavior, perceived value	Alternative attractiveness	Self-efficacy, switching costs	Mobile shopping switching intention
Chiu, Hsieh, Roan, Tseng, & Hsieh(2011)	Perceived risks online, perceived risks offline (financial risks, performance risks, psychological risks)	The attractiveness of online alternatives, the attractiveness of offline alternatives (alternative attractiveness)	Switching barriers (attitudes, subjective norms, switching costs, previous switching behavior, variety seeking)	Cross-channel free-riding, channel switching intention
Choi &Yang(2017)	Mistrust of online shopping (perceived risk of online search, perceived risk of online purchases)	Webrooming attractiveness (perceived benefits of multichannel seeking, perceived benefits of offline purchases)	Lock-in effect of online shopping (online search habit, online purchasing habit, switching costs)	Webrooming intention
Kim & Park(2015)	Mistrust of online shopping (perceived risk of online purchases, perceived privacy protection)	Offline alternative attractiveness	Lock-in effect (switching costs, loyalty)	Cross-channel free-riding intention
Lee(2019)	Failure of online experience, online service recovery, mistrust of online stores	Mobile switching cost, mobile economic risk, store attachment	Usefulness of mobile product information, mobile store image, mobile store attractiveness	Store switching intention in the mobile channel
Yi & Yeom(2016)	Consumer contact motives (uncertainty avoidance tendency, shopping for pleasure)	Social norms for showrooming (usefulness, economic value)	Showrooming lock-in (level of online information-seeking, trust in online shopping)	Showrooming behavioral intention

2) Previous Studies related to PPM

The PPM theory had been initially perceived as a useful theoretical framework that explains an individual's switching behavior for service providers in marketing or business information. However, it is currently considered suitable for explaining the shift from an individual's old habits and behaviors to new behaviors with a focus on the push, pull, and mooring factors, and thus used as a useful theoretical framework for explaining behavioral changes of consumers and organizational members such as career commitment, repurchase intention, and active user intention in marketing and organizational behavior(Choi & Yang, 2017).

As seen in 〈Table 1〉, PPM theory has been actively researched as it is applied to various fields, and especially more research has been

〈Table 2〉 Operational Definition of Each Variables

Variable	Operational Definition	References
Risk Perception	Cognitive belief about the risk that contact shopping may cause on consumers due to COVID-19	Cha & Cho(2019)
Dissatisfaction	Dissatisfaction with contact shopping experience due to COVID-19	Chen & Chen(2010); Cronin, Brady, & Hult(2000); Tam(2004)
Subjective Norm	Perception of social pressures that keep consumers from taking a particular action due to COVID-19	Perugini & Bagozzi(2001); Taylor(2007)
Perceived Anxiety	Health/social anxiety of consumers due to COVID-19	Chen, Huang, Lee, & Liao(2019)
Perceived Value	Perceived value of contact-free shopping	Kotler & Keller(2007); Zeithaml (1988)
Social Presence	Social interaction experienced by consumers in the process of contact-free shopping	Gefen & Straub(2003); Weisberg, Te'eni, & Arman(2011)
Usefulness	How much consumers think contact-free shopping is more convenient and useful	Venkatesh & Davis(2000)
Alternative Attractiveness	Perception of contact-free shopping as an alternative to contact shopping	Bansal et al. (2005); Chiu et al. (2011)
Experiential Value	Refusal to switch from the old shopping method to a new one	Holbrook(1994); Mathwick, Malhotra, & Rigdon(2001)
Switching Cost	Perception of the burden in switching to contact-free shopping	Burnham, Frels, & Mahajan, (2003); Jones, Mothersbaugh, & Beatty(2000)
Consumer Inertia	Consistency in behavior to use the same method whenever shopping	Liu, Wu, & Hung(2007)
Variety Seeking	Consumers' tendency to experience shopping in various ways	Van Trijp et al. (1996)
Switching Intention	Consumers' will to change the shopping method to contact-free shopping	Bansal et al. (2005)
Switching Behavior	Switching behavior according to consumers' switching intention	Bansal et al. (2005)

conducted in the field of the fashion industry.

Consumers' consciousness and behavior can be altered and decided according to the circumstances of the times, such as a changing society and natural environment(Chung, 2001). However, the factors utilized by most of the previous studies prior to the Covid-19 outbreak were not used based on the changes in consumers' perception due to social and environmental risk situations such as Covid-19. Therefore, this study aimed to investigate the effect of specific factors on switching intention that determine changes in consumers experiencing the Covid-19 outbreak. Therefore, this study will apply the PPM theory to examine the switching intention of consumer behavior considering both the old and new technologies and services in accepting and adopting new ones. The operational definitions of the variables used in this study are shown in 〈Table 2〉.

3. Influencing Factors of PPM and Switching Intention

1) Push Effect: Negative factors in original place

A push factor causes consumers to gain switching intentions due to the occurrence of negative impressions of 'previous' services, and push factors in this study refer to the effect that drives consumers to switch to contact-free shopping. According to Bogue(1969) who applied the PPM theory, push factors are factors that negatively affect life in the current area of residence, such as depression of the regional economy, employment loss, political/economic/religious persecution and discrimination, loss of personal development opportunities, and disasters such as floods, fires, earthquakes, and wars. Bansal et al.(2005) presented dissatisfaction, low quality, loss of trust, and regret as push factors.

Push in this study was intended to explain the 'push effect' from the conventional shopping behavior of contact shopping to contact-free shopping, describing the process that keeps people from contact/face-to-face shopping. Consumer satisfaction or dissatisfaction has been a salient research topic as an important variable in behavioral models, and dissatisfaction is used as a result variable of a purchase decision process (Baker & Crompton, 2000). The concept of dissatisfaction was presented as a push factor in many previous studies applying the PPM theory, showing a significant effect on consumers' behavioral intention. Lee(2019) claimed that consumers who experienced service provided by a store and felt unsatisfied with the service tend to avoid shopping at the same store. Keaveney (1995) argued that inconvenience, service failure, response to the wrong service, involuntary switch, and ethical problems affect switching intention. Therefore, it is necessary to identify whether consumer dissatisfaction with contact shopping affects risk perception due to Covid-19 and examine whether this affects switching intention to contact-free shopping.

H1-1: Dissatisfaction will have a positive effect on push factor.

Ajzen & Fishbein(1980) explained that consumers' behavioral intention decreases when people around them have negative attitudes toward a certain behavior. Also, when choosing a certain behavior, if the surrounding people consider it important to give a positive impression of specific behavior, the positive motivation for the be-

havior increases, while the negative impression leads to decreased motivation(Perugini & Bagozzi, 2001). This could be taken as the social pressure that consumers feel in the Covid-19 situation with its national/social norms of social distancing and refraining from going out/gathering, etc. affecting consumers' behavior to avoid contact shopping. Therefore, if people around them have negative attitudes toward their contact shopping behavior in the Covid-19 pandemic, they reduce the same behavior, thereby possibly resulting in their switching behavior.

H1-2: Subjective norm will have a positive effect on push factor.

Lee, Lim, & Koo(2005) stated that consumers, if they recognize the uncertainty of the product they purchase, may bring unexpected negative consequences, perceive risks through anxiety over such consequences. Hypochondriasis, which is an excessive anxiety about future health, causes certain behaviors(Muse, McManus, Hackmann, Williams, & Williams, 2010), and social anxiety that happens due to social causes, not by personal traits, arises because of the social environment(Wilkinson, 2002). In particular, social anxiety is a reaction to various social current situations experienced directly/indirectly(Park & Song, 2005), and special social current situations such as sudden social changes and technological advancement, economic depression, war, and disease can be considered to make people that belong to the society anxious. The health, economy, and political issues mentioned by many articles about Covid-19, to which those consumers have been continuously exposed, have further amplified the consumers' anxiety. Thus, this may lead to the expectation that anxiety over the risks created in Covid-19 may affect the level of risk perception.

H1-3: Perceived anxiety will have a positive effect on push factor.

Risk perception of contact shopping may be assumed as a factor with a negative effect on the decision-making for contact shopping. Therefore, this study defined risk perception as a cognitive belief that individuals have about the risk of Covid-19, set as the perception of the severity of the risk of Covid-19, and how likely the risk will affect them. Noh(2000) claimed that consumers' risk perception has the concept of loss, and thus higher risk perception of consumers induces more risk processing behavior and information-seeking behavior, thereby affecting product choice. This indicates that switching behavior may be induced by the risk perception about contact shopping by consumers willing to purchase fashion products. In particular, risk perception is a subjective concept in which differences occur individually, but has a lot of influence on individual decision making(Gronhaug & Stone, 1995). Moreover, the level of risk perception of oneself in the Covid-19 pandemic also affects behavior(Marinthe, Brown, Delouvée, & Jolley, 2020). Thus, risk perception about contact shopping in Covid-19 will make consumers switch to contact-free shopping.

H2: Risk perception will have a positive effect on switching intention to contact-free shopping.

Accordingly, this study selected risk perception on Covid-19 as the push factor and dissatisfaction, subjective norm and perceived anxiety as the influencing factors.

2) Pull Effect: Positive factors draw people to destination

The pull effect is a factor that makes consumers have a switching intention through a positive perception on the 'new' service, pull factors in this study refer to positive factors that induce contact-free shopping. Pull factors in the PPM theory indicate positive elements that attract potential migrants from their original residences to the new destinations and can be defined as the attractive elements of a service or a product from the consumer's perspective(Bansal & Taylor, 2002; Moon, 1995). Previous studies applying the PPM theory presented usefulness, availability, alternative attractiveness, and perceived value as pull factors. Since pull factors induce people to have a positive image(Dorigo & Tobler, 1983), consumers' perceived value of contact-free shopping is selected as the pull factor, and social presence, usefulness and alternative attractiveness are examined as subfactors.

The pull effect in this study explains the process of promoting the contact-free shopping behavior of consumers. According to Kim(2020), social presence promotes consumers' social interaction and relationship-building intention in a contact-free space. Li, Yin, Qiu, & Bai(2021) said that artificial intelligence contact-free services such as AI provides consumers with psychological stability and increases consumption value, and the increased consumption value eventually improves service quality. Also, the sense of social presence of consumers that use the multichannel effects self-efficacy(Kim, Kim, & Kim, 2018), and it is an important variable in inducing consumers' continuous visits and purchase(Choi, 2021). Therefore, it can be seen that the social presence that the consumer experiences during the contact-free shopping process is an important influencing factor in inducing positive emotions in consumers, and that it is important to make consumers aware of a sense of social presence in a contact-free digital shopping environment. Thus, the social presence experienced by consumers while shopping contact-free will induce positive emotions and make consumers highly rate the value of contact-free shopping.

H3-1: Social presence will have a positive effect on pull factor.

Usefulness is the degree to which a new product is perceived as superior to an existing product. Roger(1995), and Davis(1989) claimed that the more the consumer considers a certain technology or service useful, the more favorable their attitude or intention to use it becomes. Park(2020) said that the effect on usefulness perception differs following the characteristics of consumers using omni-channel, and Chae(2017) stated that mobile shopping's ease of use affects purchase intention through usefulness. Thus, higher perceived usefulness or convenience of contact-free shopping will affect the perceived value of consumers.

H3-2: Usefulness will have a positive effect on pull factor.

Alternative attractiveness refers to the positive attitude perceived by consumers. The alternative attractiveness means if a new service is more satisfactory or reliable, consumers will switch to a better one, even if they have to deal with a bit of inconvenience or have to spend a set amount of money(Keaveney, 1995). According to Bansal et al.(2005), when there is an alternative that seems more attractive to consumers, they are likely to purchase from the service provider of that alternative. Because the alternative attractiveness of online stores affects the cross-channel freeriding showrooming intention(Kim et al., 2018), consumers will consider engaging in contact-free shopping as an alternative to contact shopping if they feel that it is safer, more reasonable, and attractive.

H3-3: Alternative attractiveness will have a positive effect on pull factor.

Zeithaml(2000) claimed that consumers choose the purchase behavior that benefits them the most, considering the costs and benefits of purchasing a product or using a service. Perceived value is the gap between costs and benefits in this process. According to Homer & Kahle(1988), there is a causal relationship between value and attitude; here, value affects not only attitude but also behavior. In other words, consumers will have a favorable belief and attitude toward contact-free shopping if they perceive its positive value. Additionally, according to Lee(2021), unmanned stores classified as the contact-free method can be approached in more diverse dimensions than the existing general method of measuring the value of time or cost invested in an environment without clerk interaction. Therefore, when such is applied to contact-free shopping, the final behavior of purchasing through contact-free shopping is reached when personal emotions are introduced due to consumers realizing certain information in an environment such as Covid-19. Also, according to the research of Jang, Chi, Kang, & Han(2016), the perceived value of Omni-Channel significantly affects the channel switching intention. Therefore, the consumers' perceived value for the contact-free method will also significantly affect the shopping switching intention.

H4: Perceived value will have a positive effect on switching intention to contact-free shopping.

Accordingly, this study selected perceived value on contact-free shopping as the pull factor and social presence, usefulness and alternative attractiveness as the influencing factors.

3) Mooring Effect: Personal and social intervening factors

The mooring factor is a factor that delays the switching intention or behavior by mooring the push or pull effect, and mooring factors in this study refer to situational factors of individuals that either facilitate or inhibit contact-free shopping. Variables that serve as obstacles to migration include switching costs, switching experience, social influence, attitude toward switching, self-efficacy, and variety-seeking tendency(Anderson, Fornell, & Lehnmann, 1994; Bansal et al., 2005). Many studies focused on the negative effects of mooring factors that directly influence the switching intention or inhibit switching, but many

also examined their role in moderating the relationship between push and pull factor(Homburg & Giering, 2001).

The mooring effect in this study explains the process in which consumers are hesitant to switch to contact-free shopping from offline shopping i.e., contact/face-to-face. Consumers' choice of the channel depends on whether the product they are about to purchase has sensory or non-sensory attributes, with sensory products like fashion products being more suitable for the offline channel(Degeratu, Rangaswamy, & Wu, 2000; Levin, Laar, & Sidanius, 2003). Therefore, fashion products have sensory attributes, and consumers highly prefer contact shopping to personally check the fashion products or for actual behavior/experience. According to Park & Bae (2006), the enjoyable experience at a fashion store increases loyalty, which induces the behavior of continuously using offline stores. As such, fashion products are differentiated from other product categories because consumers have a strong desire to actually experience or check the product or store, which induces revisits. Thus, experiential value affects moderation of push and pull by making consumers hesitant about switching to contact-free shopping or maintaining contact shopping.

H5-1: Experiential value will have a moderating effect on the relationship between push and switching intention to contact-free shopping.

H5-2: Experiential value will have a moderating effect on the relationship between pull and switching intention to contact-free shopping.

In this study, switching cost refers to the cost of time and effort incurred when consumers do contact-free shopping compared to contact shopping. Switching costs can be defined as consumers' risk perception when wanting to change service providers. The perceived risk here is a loss that includes all financial, performance, social, psychological, and temporal risks. Such switching cost is perceived as more in-service purchases than in-product purchases(Colgate & Lang, 2001). Therefore, it is expected that the switching or non-switching to contact-free shopping will be affected according to the level of consumers' awareness of the contact-free shopping switching cost.

H6-1: Switching cost will have a moderating effect on the relationship between push and switching intention to contact-free shopping.

H6-2: Switching cost will have a moderating effect on the relationship between pull and switching intention to contact-free shopping.

Consumer inertia refers to the consistent behavior of repurchasing the same brand or product every time consumers shop. According to Pitta, Franzak, & Fowler(2006), consumers' inertia causing them to put less effort induces habitual repurchase, which prevents them from making a new purchase decision or learning a new behavior, discouraging them from making a price comparison. Such characteristics of consumer inertia can be considered as factors that drive consumers to adhere to contact shopping. Additionally, inert consumers show repeated purchasing behavior through the same service de-

spite their negative perception of an existing service(Lai, Liu, & Lin, 2011). This is a factor that makes consumers hesitate to change their behavior to contact-free shopping, even in risky settings.

H7-1: Consumer inertia will have a moderating effect on the relationship between push and switching intention to contact-free shopping.

H7-2: Consumer inertia will have a moderating effect on the relationship between pull and switching intention to contact-free shopping.

Variety seeking is the consumer's tendency to experience various brands or stores rather than specific ones to gain stimulation based on changes in their choices(Steenkamp & Baumgartner, 1992). Such is the behavior of consumers switching to a different store from the ones before. Consumers wanting to experience various brands or stores are called variety seekers. Their variety-seeking desire is expressed in their attitude and behavior found in various fields, including a real-world purchase situation or store selection (Van Trijp, Hoyer, & Inman, 1996). Therefore, the consumers' desire to shop in new ways will rise despite encountering unique circumstances such as Covid-19 and will affect their switching intentions to contact-free shopping. Additionally, the consumers display a switching behavior through variety seeking by testing new shopping methods as they grow tiresome of ways they already experienced(Assael, 2001).

H8-1: Variety seeking will have a moderating effect on the relationship between push and switching intention to contact-free shopping.

H8-2: Variety seeking will have a moderating effect on the relationship between pull and switching intention to contact-free shopping.

Accordingly, this study selected the experiential value of fashion stores, switching cost, consumer inertia and variety seeking as the mooring factor and set it as the moderator of the relationship between push-pull factors and switching intention.

4) Switching Intention and Switching Behavior

Switching intention is comprised of motivational factors that affect behavior and is an indication of effort before it is put into action. In general, higher intention increases the possibility of a certain behavior(Ajzen, 1991). According to Bae(2020), different types of shopping channels have varying effects on channel switching intention. Lattin & McAlister(1985) stated that when consumers are dissatisfied with products, services, or methods they are currently using, they not only switch to the ones that will satisfy their desires but also convert to products or services that will supplement their dissatisfaction. Thus, switching intention to contact-free shopping will affect switching behavior.

H9: Switching intention will have a positive effect on Switching behavior to Contact-free Shopping.

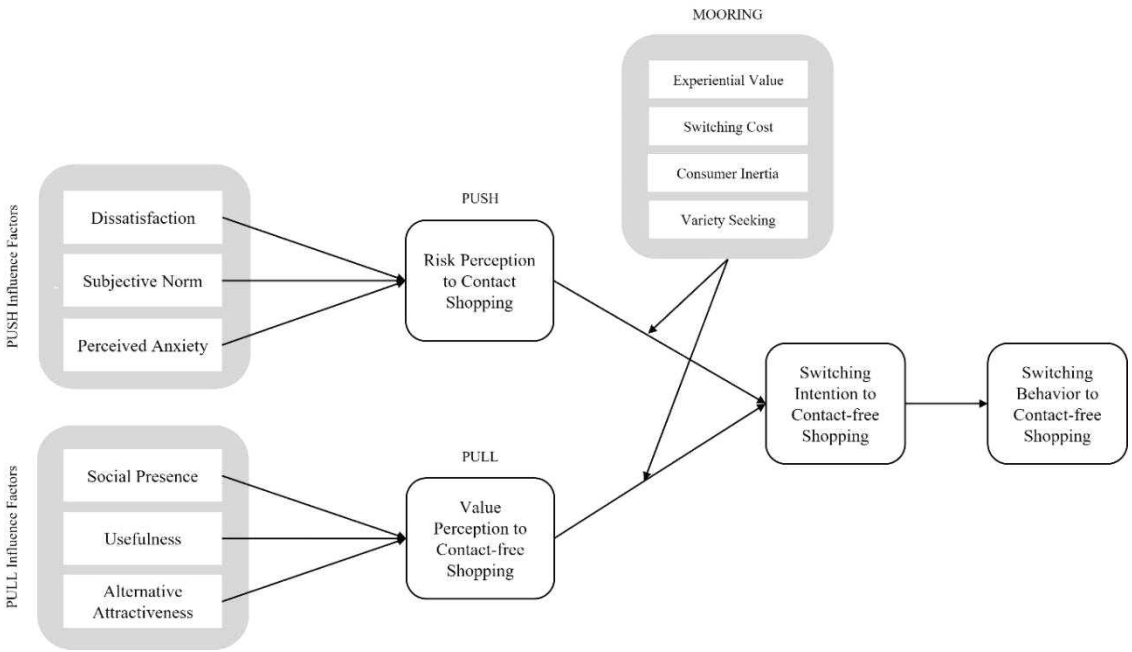
III. Research Method

1. Research Design

This study was conducted to determine the changes in awareness of contact and contact-free shopping and shopping behavior among fashion consumers that experienced the Covid-19 pandemic. Variables suitable for research were set up considering the causal relations among the variables based on previous studies on the PPM theory. Subfactors were added which confirmed the factors affecting contact-free shopping. Through empirical analysis, this study identified through different variables the moderating effect of the push factors of contact shopping among fashion consumers, the pull factors of contact-free shopping, and the mooring factors of the switch to contact-free shopping. The study was designed to analyze the relationships among the factors by identifying factors affecting such switching behavior of fashion consumers and their effect. The research model is as shown in 〈Fig. 1〉.

2. Measurement Development

Variables used in this study were measurement items revised according to the purpose of this study based on the ones with the reliability and validity already proved in previous studies and theoretical literature. Prior to the main survey, a preliminary survey was conducted on 66 male and female consumers in their 20s to 60s. Based on the results, inappropriate items were revised, ultimately securing the face validity of the final survey items. The items were rated on a 7-point Likert scale.



〈Fig. 1〉 Research Model

To collect the basic demographic information, the questionnaire asked about age, gender, education level, job, the monthly average purchase amount of fashion products, and the monthly average time for purchasing the fashion products. It also asked whether the respondent had a contact-free shopping experience to exclude those without the relevant experience.

3. Data Collection

The subjects of this study were male and female consumers in their 20s to 60s with purchasing power and who have experience purchasing fashion products through contact-free shopping. Data of the 407 subjects in total were collected, 80 from each age group. All data was collected online through a survey company. For the questions to measure the push factors in the questionnaire, an extra phrase was included to guide the respondents: "please answer the following questions with the recollection of your experience of purchasing fashion products through contact shopping since the Covid-19 outbreak compared to the pre-Covid-19 period." For the questions regarding the pull factor, it asked, "please answer the questions with the recollection of your experience of purchasing fashion products through contact-free shopping since the Covid-19 outbreak compared to the pre-Covid-19 period." The questions to examine the mooring factors were accompanied by "please answer the questions with the recollection of your experience of purchasing fashion products through both contact and contact-free shopping since the Covid-19 outbreak" to encourage the response with a comparison of personal experiences.

All data was processed using IBM SPSS Statistics 25.0 to execute frequency analysis, exploratory factor analysis, reliability analysis, and correlation analysis. Moreover, AMOS 22 was used to investigate model fit in confirmatory factor analysis, construct validity, convergent validity, and execute path analysis and moderating effect analysis.

IV. Results

1. Result of Frequency Analysis, Exploratory Factor Analysis and Reliability Analysis

Total 407 (100%) subjects responded that they have experience purchasing fashion products through contact-free shopping, confirming that all subjects are comprised of consumers that meet the subject requirements. There were 218 male (53.6%) and 189 female subjects (46.4%). 19.7% were in their 20s, (80 subjects), 19.9% in their 30s, (81 subjects), 20.1% in their 40s (82 subjects), 19.7% in their 50s (80 subjects), and 20.6% in their 60s (84 subjects).

The results of factor analysis and reliability analysis are as shown in 〈Table 3〉. Varimax rotation was used for factor rotation, and KMO and Bartlett's test of sphericity were also conducted simultaneously. KMO values were all above .7, and Bartlett much lower than .05, proving that the use of factor analysis was adequate. The result of the reliability analysis reveals that most showed high reliability, such as subjective norm at .918, dissatisfaction at .912, and experiential value at .903.

〈Table 3〉 Exploratory Factor Analysis and Reliability Analysis

	Items	Factor Loading	Eigen Value	Total	Accu-mulate	Cronbach's Alpha
SN2	Compared to before COVID-19, my friends will be negative about my offline shopping after the COVID-19 outbreak.	.832	3.792	16.485	16.485	.918
SN1	Compared to before COVID-19, my family will oppose and worry about my offline shopping after the COVID-19 outbreak.	.811				
SN3	Compared to before COVID-19, my colleagues around me will not understand that I am shopping offline after the COVID-19 outbreak.	.797				
SN4	Compared to before COVID-19, my acquaintances will dissuade me if I shop offline after the COVID-19 outbreak.	.787				
SP3	Various cues make me feel as if other users are looking at the same product when I shop in a contact-free way.	.823	3.141	13.657	30.142	.878
SP2	Various cues make me feel the presence of other users when I shop in a contact-free way.	.822				
SP4	Various cues make me feel a certain bond with other users when I shop in a contact-free way.	.807				
SP1	Various cues (user reviews, user board, etc.) make me feel as if I am in the shopping mall with other users in a contact-free way.	.749				
AA3	Compared to before COVID-19, I think contact-free methods are generally better than traditional shopping methods.	.822	3.121	13.569	43.711	.857
AA1	Compared to before COVID-19, contact-free shopping is more satisfying than offline methods.	.749				
AA2	Compared to before COVID-19, we believe that contact-free shopping benefits more than traditional methods.	.727				
AA4	Compared to before COVID-19, it would be interesting to do offline shopping in a contact-free manner.	.724				
DS2	My experience of offline shopping to purchase fashion products is not satisfactory.	.808	2.799	12.170	55.881	.912
DS1	Contact/face-to-face shopping offline is not as satisfactory as expected overall.	.787				
DS4	Overall, I feel that offline shopping for fashion products is not satisfactory.	.734				
DS3	It was not a wise decision to shop for fashion products offline.	.612				
PA2	I worry about my health when I go to a confined space or a congested area.	.801	2.523	10.968	66.849	.803
PA1	Whenever I watch the news about COVID-19, I think I may also be infected.	.750				
PA3	I feel anxious when COVID-19 is mentioned.	.729				
PA4	It is difficult to make myself feel happy and at ease ever since the outbreak of COVID-19 until today.	.576				
UF4	If I shop in contact-free, I can shop quickly.	.715	1.756	7.634	74.382	.746
UF1	The contact-free method allows me to shop anytime, anywhere, and on the go.	.636				

	Items	Factor Loading	Eigen Value	Total	Accu-mulate	Cronbach's Alpha
UF3	The contact-free method makes it easy to check the information needed for shopping.	.572				
	Bartlett's Test of Sphericity. Chi-Square $\chi^2=6067.747(df=253,\ p<.01)$**					
RP7	Offline shopping by making face-to-face contact stirs up trouble in the society.	.852				
RP5	I am worried that visiting the store or making face-to-face contact for offline shopping may give a negative perception of me to others around me.	.841				
RP6	I am worried that I might regret my choice of shopping offline.	.836				
RP8	I am worried that my reputation will be damaged when my family or friends find out that I went shopping offline.	.806	4.899	40.828	40.828	.916
RP4	Offline shopping threatens the health of myself and others around me.	.782				
RP3	Offline shopping jeopardizes the safety of myself and others around me.	.751				
RP1	I am concerned about safety of offline shopping that requires me to visit the store.	.669				
RP2	I am concerned about the risk of catching a disease like COVID-19 when visiting the store for offline shopping.	.634				
PV2	It is worth making effort in contact-free shopping to purchase fashion products.	.832				
PV4	It is worth using contact-free shopping to purchase fashion products.	.821				
PV1	It is worth spending time in contact-free shopping to purchase fashion products.	.796	3.039	25.327	66.155	.851
PV3	It is worth spending money in contact-free shopping to purchase fashion products.	.773				
	Bartlett's Test of Sphericity. Chi-Square $\chi^2=3324.986(df=66,\ p<.01)$**					
EV5	The offline store of fashion products not only sells products but also makes me happy.	.858				
EV4	I think offline stores of fashion products are very interesting.	.820				
EV6	The offline store of fashion products has a charm that captivates me.	.810	4.058	27.054	27.054	.903
EV3	I like to see fashion products in person at offline stores.	.801				
EV7	Offline shopping makes me feel free.	.757				
EV10	When I buy fashion products, I enjoy offline shopping.	.702				
SC2	Switching from the current way of shopping to contact-free shopping will require much time.	.901				
SC3	Getting used to contact-free shopping will require much time and effort.	.871	2.988	19.923	46.977	.901
SC1	Switching from the current way of shopping to contact-free shopping will require much effort.	.860				
VS4	I like the situation of shopping in a new way.	.831	2.678	17.852	64.829	.821

	Items	Factor Loading	Eigen Value	Total	Accu-mulate	Cronbach's Alpha
VS3	I shop alternately using various shopping methods.	.781				
VS1	I like to shop in various ways.	.775				
VS2	I often get tired of shopping in one way.	.759				
CI3	I shop in the current way by habit when purchasing the products I need.	.838				
CI2	It is inconvenient to switch to a different way of shopping unless I am extremely unsatisfied with the current way of shopping.	.629	1.292	8.616	73.445	.722
	Bartlett's Test of Sphericity. Chi-Square $\chi^2=3512.410(df=105,\ p<.01)$**					
SB2	I will do most of my shopping in a contact-free way.	.878				
SB3	Contact-free shopping will be a shopping method that I will mostly choose.	.873	2.760	34.497	34.497	.853
SB1	I will do contact-free shopping more in the future.	.692				
SI4	I will search necessary information for contact-free shopping.	.798				
SI5	I will ask for relevant information for contact-free shopping from those around me who have experience doing contact-free shopping.	.758				
SI2	I began to have the intention to try contact-free shopping after the COVID-19 outbreak.	.655	2.634	32.927	67.424	.824
SI1	Compared to before COVID-19, I have more positive thoughts about contact-free shopping after the COVID-19 outbreak.	.607				
SI3	I intend to keep on doing contact-free shopping.	.588				
	Bartlett's Test of Sphericity. Chi-Square $\chi^2=1625.305(df=28,\ p<.01)$**					

2. Result of Descriptive Statistics Analysis, Correlation Analysis and Confirmatory Factor Analysis

As a result of testing the normality through descriptive statistics analysis, there were no skewness and kurtosis issues in the univariate normality assumption, the result of Pearson's correlation analysis is as shown 〈Table 4〉.

Confirmatory factor analysis (CFA) was conducted to test the fit of the model using CFI (Comparative Fit Index), TLI (Tucker-Lewis Index), and RMSEA (Root-Mean Square Error of Approximation). Higher CFI and TLI indicate a good model fit, and values greater than roughly .9 indicate a good fit. On the other hand, lower RMSEA indicates a good fit, and standardized RMR below .05-.08 is interpreted as fit. The Chi- square=1264.362(df=.584, $p<.01$), TLI was .927 and CFI was .936, showing a value higher than .9. SRMR was .053, which is lower than .1, and is thus fit. RMSEA was lower than .10. As such, they generally showed favorable fit, proving that the model of confirmatory factor analysis is fit.

Factor loadings of observed variables were examined to investigate whether each observed

〈Table 4〉 Correlation Analysis

	DS	SN	PA	SP	UF	AA	RP	PV	EV	SC	CI	VS	SI	SB
DS	1													
SN	.767**	1												
PA	.499**	.511**	1											
SP	.306**	.380**	.364**	1										
UF	.138**	.189**	.410**	.450**	1									
AA	.380**	.393**	.367**	.543**	.612**	1								
RP	.745**	.810**	.572**	.431**	.242**	.426**	1							
PV	.266**	.308**	.438**	.531**	.665**	.662**	.365**	1						
EV	.022	.030	.195**	.186**	.203**	.077	.096	.169**	1					
SC	.126*	.157**	.018	.104*	-.204**	-.058	.119*	-.155**	.326**	1				
CI	-.007	-.036	-.039	.014	-.109*	-.062	-.073	-.149**	.278**	.595**	1			
VS	.337**	.358**	.285**	.419**	.347**	.357**	.391**	.362**	.413**	.155**	-.042	1		
SI	.241**	.262**	.448**	.543**	.644**	.649**	.320**	.730**	.187**	-.139**	-.136**	.404**	1	
SB	.324**	.325**	.333**	.463**	.532**	.697**	.374**	.623**	-.060	-.158**	-.118*	.221**	.686**	1

*p<.05, **p<.01

variable reflects the latent variable in the confirmatory factor analysis. The result showed that all path coefficients are significant; thus, the observed variables reflect the latent variables well. Additionally, the standardized path coefficient(β) is higher than .5, satisfying the construct validity.

The average Variance Extracted(AVE) of each variable was measured to test the discriminant validity, and the correlation coefficients among variables were calculated. R-squared of independent variables was .4893 for perceived value and switching behavior, and the AVE of each variable was higher than that. Thus, there was no problem in discriminant validity. The overall model fit of the path analysis was Chi-square=999.837, CMIN/DF=1.770, RMR=.112, CFI=.959, NFI=.912, IFI=.960, GFI=.884, AGFI=.856, RMSEA=.044, and, indicating that most showed satisfactory fit.

3. Path Analysis Result

As a result of the path analysis, dissatisfaction and subjective norm to contact shopping have a significant effect on risk perception to contact shopping. But perceived anxiety has no significant effect on risk perception. Further, usefulness and alternative attractiveness to contact-free shopping have a significant effect on perceived value. Therefore, H 1-1, H 1-2, H 3-2, H 3-3, H 4, H 5 were accepted. The results of the path analysis are as shown in 〈Table 5〉.

4. Multiple Group Analysis Result: Moderating Effect

This study conducted multiple group analysis by dividing mooring factors to test the moderating effect. Measurement invariance is tested to determine whether the measurement items are considered the same among the groups for the

〈Table 5〉 Path Analysis Result

Hypothesis	Path			Estimate		S.E.	C.R.	p
				Regression	Standardized Regression			
H 1-1	Risk Perception	←	Dissatisfaction	.283	.273	.061	4.605	.000
H 1-2	Risk Perception	←	Subjective Norm	.713	.701	.071	9.999	.000
H 1-3	Risk Perception	←	Perceived Anxiety	-.082	-.056	.060	-1.373	.170
H 2	Switching Intention	←	Risk Perception	-.021	-.035	.021	-.989	.323
H 3-1	Perceived Value	←	Social Presence	.055	.076	.034	1.625	.104
H 3-2	Perceived Value	←	Usefulness	.526	.584	.071	7.395	.000
H 3-3	Perceived Value	←	Alternative Attractiveness	.274	.352	.052	5.291	.000
H 4	Switching Intention	←	Perceived Value	.942	.943	.073	12.827	.000
H 9	Switching Behavior	←	Switching Intention	1.212	.890	.096	12.690	.000

*p<.05, **p<.01, ***p<.001

multiple group analyses. $\triangle\chi^2$ of the unconstrainted model and constrained model 1 about experiential value is 28.865 and the p-value is .367, thereby not significant. Switching cost ($\triangle\chi^2$=32.054, p=.230), variety seeking ($\triangle\chi^2$=40.761, p=.135), and consumer inertia ($\triangle\chi^2$=34.307,

〈Table 6〉 Moderating Effect: Mooring

Hypothesis	Variable	Path			Estimate		χ^2	p
					Low	High		
H 5-1	Experiential Value	Switching Intention	←	Risk Perception	-.112	.025	4.136	.042*
H 5-2			←	Perceived Value	.979**	.909**	3.944	.047*
H 6-1	Switching Cost	Switching Intention	←	Risk Perception	-.054	.009	.738	.390
H 6-2			←	Perceived Value	.975**	.854**	3.054	.081
H 7-1	Consumer Inertia	Switching Intention	←	Risk Perception	-.042	-.020	.159	.690
H 7-2			←	Perceived Value	.957**	.940**	.346	.556
H 8-1	Variety Seeking	Switching Intention	←	Risk Perception	-.128*	.043**	5.956	.015*
H 8-2			←	Perceived Value	.964**	.908**	1.440	.230

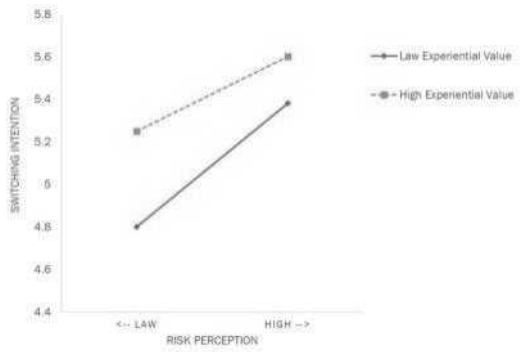
*p<.05, **p<.01

p=.269) also turned out to be insignifi- cant. In other words, the high and low groups of each factors have specific homogeneity of coefficients between latent and measurement variables in addition to the model, and thus multiple group analysis can be conducted. The results of the moderating effect of mooring factors are as shown in 〈Table 6〉.

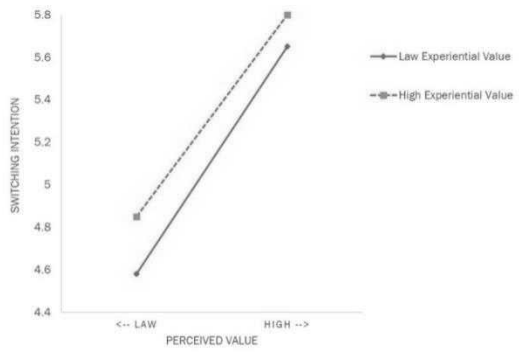
An analysis of whether experiential value has a moderating effect on risk perception affecting switching intentions showed that there was a moderating effect since the p-value was .042, which is statistically significant. As shown in 〈Fig. 2〉, if experiential value is low, the slope of the effect of risk perception on switching intention is greater. On the other hand, if experiential value is high, the slope of risk perception is more gradual. This means that the lower the level of experiential value, which represents a positive attitude toward fashion stores, the greater the effect of high risk perception on switching intention, and when experiential value is high, the effect of risk perception on switching intention decreases. Therefore, experiential value seems to buffer the effect of risk perception on switching intention.

Examining whether experiential value has a moderating effect on perceived value affecting switching intention, it was found that there was a moderating effect since the p-value was .047, which is statistically significant. In 〈Fig. 3〉, if experiential value is low, the slope of the effect of perceived value on switching intention is greater. On the other hand, if experiential value is high, the slope of perceived value is more gradual. This means that the lower the level of experiential value, which represents a positive attitude toward fashion stores, the greater the effect of higher perceived value on switching intention, and that when experiential value is high, the effect of perceived value on switching intention decreases. Therefore, experiential value seems to buffer the effect of perceived value on switching intention.

On the other hand, risk perception affects switching intention, and the significance probability of switching cost is .390, signifying that moderating role was not taken place. The perceived value affects switching intention, and the significance probability of switching cost is .081,



〈Fig. 2〉 Experiential Value Moderating Effect on Risk Perception



〈Fig. 3〉 Experiential Value Moderating Effect on Perceived Value

meaning that moderating role was not taken place. Additionally, risk perception and perceived value affect switching intention. Looking at whether customer inertia has a moderating effect, the significance probability was .690 and .556, respectively, signifying that moderating role was not taken place. Finally, confirming the moderating effect of variety seeking resulted in the risk perception affecting switching intention and the significance probability of .015, signifying that moderating role has taken place. However, significance probability of the diversity-seeking moderating effect when the perceived value that affects the switching intention is .230. This means that moderating role was not taken place as the value is not statistically significant. Therefore, H 5-1, H 5-2, H 7-1 were accepted.

V. Conclusion

1. Discussion

Interest in contact-free marketing has risen with Covid-19 and the acceleration of the 4th industrial revolution, and contact-free has arrived as a new norm in the post-Covid era. This study was conducted to verify the change in the awareness of fashion consumers about contact and contact-free shopping suitable for the present circumstances such as the risk of Covid-19. To this end, influencing factors and key factors affecting shopping switching intention and behavior of fashion consumers were verified based on various previous studies and the PPM theory. After that, the relationship between the key factors and switching intention and behavior was examined, and the moderating effects were validated. The results showed that the factors that had the greatest impact on the push effect (risk perception to contact shopping) were dissatisfaction to contact shopping and subjective norm to Covid-19, and the factors that had the greatest impact on the pull effect (perceived value to contact-free shopping) were usefulness and alternative attractiveness to contact-free shopping. This is because fashion consumers considered the convenience and satisfying experiences most important in shopping.

Moreover, the perceived value significantly affected switching intention to contact-free shopping, whereas risk perception did not. This implies that the pull effect, not the push effect, is the main cause of consumers switching to contact-free shopping. Therefore, behavioral change is not induced by perceiving the risk of contact shopping; rather, switching behavior is induced by consumer awareness that contact-free shopping is more valuable. The key point here is that consumers who already perceived the value of contact-free shopping during the Covid-19 pandemic are likely not to switch back to contact shopping even when a safe shopping environment is guaranteed post Covid-19.

Finally, fashion store's experiential value in mooring turned out to play a moderating role, due to the nature of fashion shopping, the level of value obtained from direct experience at fashion stores greatly affects consumer behavior in contact or contact-free shopping. However, the switching cost to contact-free shopping and consumers' inertia did not appear to have a moderating role, but variety seeking, one of the consumer characteristics, was found to moderate the relationship between risk perception and switching intention. This can be taken as that switch-

ing behavior may vary depending on the size of the variety-seeking desire when switching intention occurs on consumers by contact-free shopping due to risk perception of contact shopping. It was observed, in particular, that the switching intention can change at any time according to the consumers' desire to use a fashion store, depending on the situation. Therefore, it is determined that consumers will use various methods they desire, even in the environmental change caused by Covid-19.

2. Implications

This study empirically examines the effect of consumer awareness in the new environment of Covid-19 on the contact/contact-free shopping behavior of fashion consumers. Accordingly, its significance is in overcoming the limitations of previous studies that validated the effect of each attribute among various stores as a means to induce the purchase of fashion products. This study also expands the theoretical framework for values pursued by consumers. Marinthe et al. (2020) revealed that the effect on behavior varies depending on the level of risk perceived by consumers in a crisis like Covid-19. This is because risk perception is a subjective concept varying from individual to individual(Gronhaug & Stone, 1995). This study also revealed that risk perception did not affect the change in shopping behavior of consumers who have already experienced the Covid-19 crisis for more than a year. Therefore, consumers' current level of risk perception for Covid-19 seems to be low, thereby not affecting switching behavior. This implies that more attention should be paid to the pull effect, such as usefulness and alternative attractiveness to contact-free shopping rather than the push effect in fashion consumers' switching behavior to contact-free shopping.

Furthermore, this study determined not only how fashion store experience in a contact-free shopping situation but also how the value unique to fashion stores affects contact/contact-free shopping of consumers. This proved that it is necessary to understand that fashion consumers seek experiential value in offline shopping and desire to shop using various methods. This can provide useful implications for fashion brands and companies planning offline or online shopping for the post Covid-19 era. Comprehensively analyzing consumer needs and seeking ways to promote contact-free shopping through customized marketing can be the best targeting method for potential customers. Thus, the method provided based on the results of this study may contribute greatly to the fashion industry.

3. Limitations and Future Research

This study has implications in applying push and pull of the PPM theory to switching behavior from contact to contact-free shopping and verifying the experiential value of fashion stores as a mooring factor. However, it has the limitation of insufficient exploration of factors explaining the technical aspects of contact-free shopping, given that it has established relationships around emotional responses such as awareness, perception, and value. Furthermore, according to previous studies, experiential values are divided into intrinsic and extrinsic values (Mathwick et al., 2001), and risk perception is divided into general risk perception and contextual risk perception in a particular situation.

Therefore, future studies must distinguish each factor in more detail for validation. Moreover, consumers' choice of shopping channels may vary depending on whether the fashion product is high-touch or low-touch(Levin et al., 2003), and if the characteristic or type of fashion product is different, consumers go through a different evaluation process for the product(Han & Hwang, 2019). Thus, further research may show different results depending on product characteristics by classifying the products consumers intend to purchase into specific product groups.

References

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes, 50*(2), 179-211.

Ajzen, I. & Fishbein, M. (1980). *Understanding Attitude and Predicting Social Behavior.* Englewood Cliffs, U.S.: Prentice Hall.

Anderson, E., Fornell, C., & Lehnmann, D. R. (1994). Customer satisfaction, market share, and profitability: Findings from Sweden. *Journal of Marketing, 58*(3), 53-66.

Assael, H. (2001). *Consumer behavior and marketing action* (6th ed.). Boston, U.S.: Thomson Learning.

Bae, J. (2020). Consumer satisfaction, dissatisfaction, and channel-switching intention in accordance with shopping channels. *Journal of Public Relations, 24*(3), 1-22.

Baker, D. A. & Crompton, J. L. (2000). Quality, satisfaction and behavioral intentions. *Annals of Tourism Research, 27*(3), 785-804.

Bandura, A. (1991). Social cognitive theory of self-regulation. *Organizational Behavior and Human Decision Processes, 50*(2), 248-287.

Bansal, H. S. & Taylor, S. F. (2002). Investigating interactive effects in the theory of planned behavior in a service provider switching context. *Psychology and Marketing, 19*(5), 407-425.

Bansal, H. S., Taylor, S. F., & St. James, Y. (2005). "Migrating" to new service providers: Toward a unifying framework of consumers' switching behaviors. *Journal of the Academy of Marketing Science, 33*(1), 96-115.

Bird, J. (2020, March 29). Zero contact everything: Coronavirus causes the rapid rise of 'no touch' retail. *Forbes.* Retrieved from https://www.forbes.com/sites/jonbird1/2020/03/29/zero-contact-everything-coronavirus-causes-the-rapid-rise-of-no-touch-retail/?sh=3f59889138cf

Bogue, D. J. (1969). *Principles of demography.* New York, U.S.: John Wiley.

Burnham, T. A., Frels, J. K., & Mahajan, V. (2003). Consumer switching costs: A typology, antecedents, and consequences. *Journal of the Academy of Marketing Science, 31*(2), 109-126. doi:10.1177/0092070302250897.

Cha, Y. & Cho, J. (2019). A social-cognitive model of applying RISP and HBM model for Korean internet users' behavioral intentions regarding fine-dust risk protection: The role of information exposure, subjective norms, negative emotions, and risk perception. *Korean Journal of Journalism and Communication Studies, 63*(6), 96-142.

Chae, J. M. (2017). The effects of shopping value, ease of use, and usefulness on mobile purchase intention. *Science of Emotion & Sensibility, 20*(2), 73-86.

Chang, H. H., Wong, K. H., & Li, S. Y. (2017). Applying push-pull-mooring to investigate channel switching behaviors: M-shopping self-efficacy and switching costs as moderators. *Electronic Commerce Research and Applications, 24,* 50-67.

Chen, C. F. & Chen, F. S. (2010). Experience quality, perceived value, satisfaction and behavioral intentions for heritage tourists. *Tourism Management, 31*(1), 29-35.

Chen, I. M., Huang, W. L., Lee, M. B., & Liao, S. C. (2019). Chinese version of health anxiety questionnaire: Psychometric properties and its association with DSM-IV/DSM-5 systems. *Formosan Journal of Medicine, 23*(1), 21-30.

Chiu, H.-C., Hsieh, Y.-C., Roan, J., Tseng, K.-J., & Hsieh, J.-K. (2011). The challenge for multichannel services: Cross-channel free-riding behavior. *Electronic Commerce Research and Applications, 10*(2), 268-277.

Choi, H. & Yang, S. (2017). An empirical study on influencing factors of switching intention from online shopping to webrooming. *Journal of Intelligence and Information Systems, 22*(1), 19-41.

Choi, M. (2021). The effect of the interactivity of live-streaming commerce on behavior intention- mediated social presence and relationship quality. *Journal of the Korean Society of Costume, 71*(4), 69-87.

Chung, B. M. (2001). A theoretical discussion on consciousness reformation. *The National Academy of Sciences, 40,* 1-42.

Colgate, M. & Lang, B. (2001). Switching barriers in consumer markets: An investigation of the financial services industry. *Journal of Consumer Marketing, 18*(4), 332-347.

Cottrell, J. (2021, June 16). Contactless Vs. checkoutless Shopping: One problem, two approaches. *Forbes.* Retrieved from https://www.forbes.com/sites/forbestechcouncil/2021/06/16/contactless-vs-checkoutless-shopping-one-problem-two-approaches/?sh=510ffa371600

Cronin, J., Brady, M., & Hult, G. T. M. (2000). Assessing the effects of quality, value, and customer satisfaction on consumer behavioral intentions in service environments. *Journal of Retailing, 76,* 193-218.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly, 13*(3), 319-340.

Degeratu, A. M., Rangaswamy A., & Wu, J. (2000). Consumer choice behavior in online and traditional supermarkets: The effects of brand name, price, and other search attributes. *International Journal of Research in Marketing, 17*(1), 55-78.

Dorigo, G. & Tobler, W. (1983). Push-pull migration laws. *Annals of the Association of American Geographers, 73*(1), 1-17.

Gefen, D. & Straub, D. W. (2003). Managing user trust in b2c e-services. *E-Service Journal, 2*(2), 7-24.

Gronhaug, K. & Stone, R. N. (1995). Why perceived risk failed to achieve middle range theory status: A retrospective research note. E - European *Advances in Consumer Research, 2,* 412-417.

Han, Y. & Hwang, S. (2019). Effect of intention to visit a store on consumer's self-construal level, type of fashion product, type of mobile location based commercial promotion: Focus on beacon service of shoes multi-shop. *Journal of the Korean Society of Costume, 69*(1), 1-19.

Holbrook, M. (1994). The nature of customer's value: An axiology of service in consumption experience. In R. T. Rust & R. L. Oliver (Eds.), *Service quality: New directions in theory and practice* (pp. 21-71). Thousand Oaks, U.S.: SAGE Publications.

Homburg, C. & Giering, A. (2001). Personal characteristics as moderators of the relationship between customer satisfaction and loyalty: An empirical analysis. *Psychology and Marketing, 18*(1), 43-66.

Homer, P. M. & Kahle, L. R. (1988). A structural equation test of the value-attitude-behavior hierarchy. *Journal of Personality and Social Psychology, 54*(4), 638 - 646.

Hsieh, J. K., Hsieh, Y. C., Chiu, H. C., & Feng, Y. C. (2012). Post-adoption switching behavior for online service substitutes: A perspective of the push - pull - mooring framework. *Computers in Human Behavior, 28*(5), 1912-1920.

Hutt, R. (2020, August 11). 'Untact': South Korea's plan for a contact-free society. *World Economic Forum.* Retrieved from https://www.weforum.org/agenda/2020/08/south-korea-contactless-coronavirus-economy/

Jang, C.-K., Chi, Y.-S., Kang, M.-Y., & Han, K.-S. (2016). The effects of consumer's perceived value and satisfaction of omni-channel commerce on shopping channel switching intention. *The Journal of Internet Electronic Commerce Research, 16*(4), 203-228.

Jones, M., Mothersbaugh, D., & Beatty, S. (2000). Switching barriers and purchase intentions in services. *Journal of Retailing, 76*(2), 259-274.

Jun, S. & Kim, J.-H. (2020). Theoretical background and prospects for the untact industry. *Journal of New Industry and Business, 38*(1), 96-116.

Keaveney, S. M. (1995). Customer switching behavior in service industries an exploratory study. *Journal of Marketing, 59,* 71-82.

Kim, D.-J., Choi, H.-J., Cho, H.-K., & Yang, J.-Y. (2020). A case study on untact marketing in the hotel industry. *Korean Journal of Hospitality & Tourism, 29*(4), 205-218.

Kim, E. & Park, M. C. (2015). Antecedents of cross-channel free-riding intention: The moderating effect of product categories using push-pull-mooring framework. *KMIS International Conference (2015.08),* 87-97.

Kim, K. C. (2020, April 14). [Post Covid] There are 10 business opportunities in omni Integration. *Sisajournal.* Retrieved from http://www.sisajournal.com/news/articleView.html?idxno=198565

Kim, T. H., Kim, S. H., & Kim, J. H. (2018). Antecedents of cross-channel freeriding showrooming behavior in on-offline multichannel environment: Focusing on multichannel self-efficacy and the attractiveness of alternative online store. *Journal of Marketing Studies, 26*(4), 21-41.

Kotler, P. & Keller, K. L. (2007). *A framework for marketing management.* Upper Saddle River, U.S.: Prentice Hall.

Lai, L. H., Liu, C. T., & Lin, J. T. (2011). The moderating effects of switching costs and inertia on the customer satisfaction-retention link: Auto liability insurance service in Taiwan. *Insurance Markets and Companies: Analyses and Actuarial Computations, 2*(1), 69-78.

Lattin, J. M. & McAlister, L. (1985). Using a variety-seeking model to identify substitute and complementary relationships among competing products. *Journal of Marketing Research, 22*(3), 330-339.

Lee, H.-S., Lim, J.-H., & Koo, M.-J. (2005). The influences of anticipation in the expectancy - disconfirmation paradigm-moderating roles of brand experiences and measuring time interval. *Advertising Research, 68*(1), 139-170.

Lee, M. (2021). The effect of service quality and consumption value on customer engagement in smart

franchise stores: The moderating effect of perceived risk on covid-19. *Journal of Franchising, 7*(3), 49-65.

Lee, M. H. (2019). The effects of non face-to-face channel marketing on relational benefits and repurchase intention in food service company. *Journal of Hotel & Resort, 18*(1), 293-318.

Lee, S. & Lee, D. (2020). "Untact": A new customer service strategy in the digital age. *Service Business, 14*(1), 1-22.

Lee, S. H. N. & Chow, P.-S. (2020). Investigating consumer attitudes and intentions toward online fashion renting retailing. *Journal of Retailing and Consumer Services, 52.*

Levin, S., Laar, C. V., & Sidanius, J. (2003). The effects of ingroup and outgroup friendships on ethnic attitudes in college: A longitudinal study. *Group Processes & Intergroup Relations, 6*(1), 76 - 92.

Li, M., Yin, D., Qiu, H., & Bai, B. (2021). Examining the effects of ai contactless services on customer psychological safety, perceived value, and hospitality service quality during the covid 19 pandemic. *Journal of Hospitality Marketing & Management, 31*(1), 24-48.

Liu, T. C., Wu, L. W., & Hung, C. T. (2007). The effects of inertia and switching barriers on satisfaction-retention relationship: A case of financial service industries. *Journal of Management, 24*(6), 671-687.

Marinthe, G., Brown, G., Delouvée, S., & Jolley, D. (2020). Looking out for myself: Exploring the relationship between conspiracy mentality, perceived personal risk and covid-19 prevention measures. *British Journal of Health Psychology, 25,* 957-980.

Mathwick, C., Malhotra, N., & Rigdon, E. (2001). Experiential value: Conceptualization, measurement and application in the catalog and internet shopping environment. *Journal of Retailing, 77*(1), 39-56. doi:10.1016/S0022-4359(00)00045-2

Moon, B. (1995). Paradigms in migration research: Exploring 'moorings' as a schema. *Progress in Human Geography, 19*(4), 504-524.

Moon, J., Choe, Y., & Song, H. (2021). Determinants of consumers' online/offline shopping behaviours during the covid-19 pandemic. *International Journal of Environmental Research and Public Health, 18*(4), 1593.

Muse, K., McManus, F., Hackmann, A., Williams, M., & Williams, M. (2010). Intrusive imagery in severe health anxiety: Prevalence, nature and links with memories and maintenance cycles. *Behavior Research and Therapy, 48*(8), 792-8.

Noh, J. P. (2000). The effect of product and store intangibility on buyers' risk perception. *Journal of Consumer Studies, 11*(4), 111-130.

Park, A., An, H. S., Song, J. M., & Chung, C. (2022). Please do not disturb: The effect of zero-contact marketing on Korean consumers' decision-making process. *Asia Pacific Journal of Marketing and Logistics, 34*(3), 488-505.

Park, J. (2020). The study on the relationship among shopper's personal attributes, perceived usefulness, and satisfaction in an omni-channel context. *Korean Review of Corporation Management, 11*(2), 235-255.

Park, S. A. & Song, K. J. (2005). The effect of social anxiety on psychological adaptation. *Korean Psychological Journal of Culture and Social Issues, 11*(2), 1-29.

Park, S. Y. & Bae, H. K. (2006). Sensory experience effects on store attitude and loyalty: The mediating role of emotion and satisfaction. *Journal of Marketing Management Research, 11*(3), 1-13.

Payments Journal. (2020, July 31). Contactless and contact-free transactions post COVID. Retrieved from https://www.paymentsjournal.com/contactless-and-contact-free-transactions-post-covid/

Perugini, M. & Bagozzi, R. P. (2001). The role of desires and anticipated emotions in goal directed behaviours: Broadening and deepening the theory of planned behaviour. *British Journal of Social Psychology, 40*(1), 79-98.

Pitta, D., Franzak, F., & Fowler, D. (2006). A strategic approach to building online customer loyalty: Integrating customer profitability tiers. *Journal of Consumer Marketing, 23*(7), 421 - 429.

Ravenstein, E. G. (1885). The laws of migration. *Journal of the Statistical Society of London, 48*(2), 167-235.

Rogers, E. M. (1995). Lessons for guidelines from the diffusion of innovations. *Joint Commission Journal on Quality and Patient Safety, 21*(7), 324-328.

Sneader, K. & Singhal, S. (2020, May 2). 3 changes businesses will need to adapt to post-coronavirus. *Fortune.* Retrieved from https://fortune.com/2020/05/01/business-reopen-economy-coronavirus-new-normal/

Steenkamp, J.-B. & Baumgartner, H. (1992). The role of optimum stimulation level in exploratory consumer behavior. *Journal of Consumer Research, 19,* 434-448.

Tam, J. L. (2004). Customer satisfaction, service quality and perceived value: An integrative model. *Journal of Marketing Management, 20*(7-8), 897-917.

Taylor, S. A. (2007). The addition of anticipated regret to attitudinally based, goal directed models of information search behaviours under conditions of uncertainty and risk. *British Journal of Social Psychology, 46*(4), 739-768.

Van Trijp, H. C. M., Hoyer, W. D., & Inman, J. J. (1996). Why switch? product category: Level ex-

planations for true variety-seeking behavior. *Journal of Marketing Research, 33*(3), 281 - 292.

Venkatesh, V. & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management Science, 46*(2), 186-204.

Weisberg, J., Te'eni, D., & Arman, L. (2011). Past purchase and intention to purchase in e commerce: The mediation of social presence and trust. *Internet Research, 21*(1), 82-96.

Wilkinson, I. (2001). *Anxiety in a 'risk' society.* London, UK: Routledge.

Yi, H. & Yeom, M.(2016). An investigation into the determination of show-rooming: Focused on migration theory. *Journal of Korea Service Management Society, 17*(4), 65-88.

Zeithaml, V. A. (1988). Consumer perceptions of price, quality, and value: A means-end model and synthesis of evidence. *Journal of Marketing, 52*(3), 2-22.

Zeithaml, V. A. (2000). Service quality, profitability, and the economic worth of customers: What we know and what we need to learn. *Journal of the Academy of Marketing Science, 28*(1), 67-85.