

# Consumers' Channel Selection Behavior Based on Psychological Distance Cue: Regulatory-Focus as Moderator

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## ABSTRACT

As merging online and offline channels into one single platform, individuals could easily and frequently switch between online and offline channels. In order for understanding such unique behaviors, this study attempts to explore why and how consumers choose their channels to search and purchase a product. We have drawn on multiple theories that have been used to explain individuals' judgment and decision making (i.e., construal level theory and regulatory focus theory) in order to develop and tested two-way ANOVA based models of how both regulatory focus (e.g., promotion vs. prevention) and product types (e.g., experience goods vs. searching goods) including the psychological distance cue separately and jointly affect individuals' channel selection behavior (e.g., intention to use single channel vs. intention to use cross-channels). Our results have indicated that consumers with promotion-focus are more likely to use a single channel in experience goods rather than in searching goods when there exists the psychological cue. Based on our findings, the implication for both research and practice are discussed.

*Keywords:* Channel Selection Behavior, Psychological Distance Cue, Regulatory Focus, Gender Difference

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## I . Introduction

Recent advances in information technologies (hereafter, IT) have facilitated the integration of online and offline retailing channels into one single platforms (Gu and Tayi, 2017). In particular, the rapid development of modern IT has triggered the

growing prevalence of consumers' channel selection behavior. Under the circumstance, consumers could easily and frequently switch between online and offline channels for exploring a variety of stages in their searching and purchasing decision processes because many service providers offers both online and offline service simultaneously. Based on this sur-

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rounding, it is still important for relevant researchers to gain a better understanding of how such behaviors are detected in multichannel retailing contexts. In this connection, Verhoef et al. (2015) have also suggested that consumers' behavior in multichannel retailing channels would be very attractive research area. Until a recent date, prior work on this area has focused on discovering characteristics of each channel to explaining customers' purchasing behaviors by employing several theoretical explanations (e.g., Ailawadi and Farris, 2017; Beck and Ryg, 2015; Hübner et al., 2016; Verhoef et al., 2015).

While such theoretical explanations have been proposed, however, there has been little empirical work on dealing with individuals' propensities and product types in this area. Regardless of channels, we assume that the main goal of consumers are to make a purchase for specific products that they really want. In this case, it is necessary for us to target consumers' channel selection behaviors by considering both their own propensities and product types. Therefore, we point out that it would be essential to examine the effect of both individual propensities and product types on consumers' channel selection behaviors in multiple channel retailing contexts. Thus, this study attempts to draw upon both construal level theory and regulatory focus theory as theoretical lens to represent the individual's propensities as well as classify the characteristics of goods into two product types - experience goods and searching goods to explain consumers' channel selection behavior.

Meanwhile, it is important to gain a deep understanding of considering both individual propensities and product types to explain the channel selection behaviors, for several reasons. First, from the consumers' perspective, they tend to conduct channel selection behaviors to enjoy the benefits of shopping at both online and offline channels to make a final

purchase. For example, consumers first visit offline channels to inspect and experience products and then browse them in online channels for making final pick or vice versa (Gu and Tayi, 2017). Therefore, research that can shed additional light on individuals' propensities may ultimately prove beneficial to both online and offline retailing industry itself.

Second, while both construal level theory and regulatory focus theory have been suggested as possible theoretical lens to better understand an individual's judgment and decision making (e.g., Higgins, 1998; Trope and Liberman, 2010), there has been very little empirical work that has investigated the application to online/offline channel retailing context. Thus, the theoretical explanation that connects both construal level theory and regulatory focus theory to consumers' channel selection behavior is undeveloped in IS research area and represents a significant theoretical gap in our understanding of the phenomenon.

Third, while prior work have focused mainly on how consumers' behaviors differ across channels and specifically looked at channel adoption or channel usage (e.g., Verhoef et al., 2015), comparatively less attention has been placed on product types. Thus, there is a need to understand the role of psychological distance cue and product types across regulatory focus and how they may influence the channel selection behavior. In light of the above, this study seeks to address following research questions:

- 1) *How do consumers conduct their channel selection behavior (e.g., intention to use single channel vs. intention to use cross-channel) in multi-channel retailing contexts?*
- 2) *How does this behavior differ based on psychological distance cue and product types (e.g., experience vs. searching goods) across regulatory focus (e.g., promotion vs. prevention-focus)?*

In order to address the above research questions, we have drawn on multiple theories that have been used to explain individuals' judgment and decision making through regulatory focus theory based on construal level theory. By employing these theories, we have developed and tested two-way ANOVA based models of how both psychological distance cues and product types (e.g., experience goods vs. searching goods) across regulatory focus (e.g., promotion-focus vs. prevention-focus) separately and jointly affect individuals' channel selection behavior (e.g., intention to use single channel vs. intention to use cross-channels).

By testing our proposed hypotheses, we not only contribute to the existing body of knowledge on channel selection behaviors in multi-channel retailing context, but also contribute to the extant literature on dealing with individuals' judgment and decision making by developing and testing a two-way ANOVA model that combines constructs derived from multiple theories such as construal level theory and regulatory focus theory. This study could provide multi-channel operators with practical guidelines for understanding why and how consumers tend to switch their shopping channels.

The remainder of the paper is organized as follows. The next section provides a brief background on consumers' channel selection behavior and some of research that has been done in multi-channel retailing research area, particularly focusing on those studies that related to consumers' channel selection. Then, we present our research hypotheses based on two key theories (e.g., construal level theory and regulatory focus theory), followed by the data analysis and results of our study. The implications of our findings are then discussed.

## II. Literature Review and Theory Base

### 2.1. Channel Selection Behavior

In multi-channel retailing literature, there are three major research topics; 1) impact of channels on performance, 2) shopper behavior across channels, and 3) retail mix across channels (Verhoef et al., 2015). Research in this domain could be conducted at various levels such as retail firm level (e.g., Homburg et al., 2014), retail channel level (e.g., Avery et al., 2012; Kim et al., 2017), and customer level (e.g., Gu and Tayi, 2017; Heitz-Spahn, 2013). Among three research domains, we have tried to focus on the shopper behavior across channels in the customer level. In this area, previous work has mainly focused on channel choice, channel adoption, or usage (e.g., Chiu et al., 2011; Heitz-Spahn, 2013; Lu et al., 2011). Due to the research focus, relevant studies have been conducted to explore major drivers of channel adoption, choice usage by employing channel attributes, psychographics, and socio-demographics (e.g., Ansari et al., 2008; Verhoef et al., 2007).

In general, given the consideration of unique consumers' searching and purchase decisions, some consumers tend to use only one single channel (e.g., searching and purchase in one channel), while others are more likely to use multiple channel (e.g., searching and purchase in both online and offline channels) during the various stages of their purchase decision processes. Since consumers' shopping goal could be generated in any stages of their purchase decision process, Balasubramanian et al. (2005) have pointed out that it is natural to see how they switch between online and offline channels. Taken together, the channel selection behavior indicate that recent consumers are exposed in multi-channel shopping journeys.

Thus, we have used the term channel selection behavior, which consisted of two specific behavior such as intention to use a single channel and intention to use cross channel in this study.

Previous studies have mainly identified the channel selection behavior including pseudo-showrooming (Gu and Tayi, 2017), free-riding behavior (Chiu et al., 2011; Heitz-Spahn, 2013), intention to transfer usage from offline to the online (Lu et al., 2011) and channel utilization (Noble et al., 2005). For example, Gu and Tayi (2017) have used pseudo-showrooming which has been defined as a consumer behavior of inspecting a product at offline channels before purchasing a related but different product at the same online channels. According to Gu and Tayi, many consumers do pseudo-showrooming to reap their benefits of shopping at multi-channel sellers. Chiu et al. (2011) have also considered the free-riding behavior that occurs when consumers search online, then purchase at another physical store. Especially, they have highlighted that there are two dimensions of consumer switching behavior (i.e., consumer behavior to use either same or different channels for searching and purchasing) to explain purchasing behavior in multi-channel contexts. In this study, we have considered the channel selection behavior as a matter of consumers' choice and also classified it as intention to use a single channel and intention to use cross-channel in this study.

## 2.2. Psychological Distance from Construal Level Theory

Construal level theory (hereafter, CLT) is a theory in social psychology that explains the relationship between psychological distance and the extent which an individual's thinking is abstract or concrete (Trope and Liberman, 2010). The CLT has highlighted that

high-level construal reflects general understandings toward an object, while low-level construal represents the details and specifics on the object. According to the CLT, individuals have different psychological distances by using similar mental construal processes (Trope and Liberman, 2010). Trope and Liberman (2010) have mentioned that a variety of distances are cognitively related to each other and similarly influence and be influenced by level of construal, since the distances have the same egocentric reference point. Namely, individuals have different psychological distance because of their various distances by egocentric reference point and by their level of construal. Namely, as psychological distance increases, construals would become more abstract, and as level of abstraction increases, so too would the psychological distances people predict.

Meanwhile, the CLT has identified the four types of psychological distances: temporal distance (near vs. distant future), social distance (in-group vs. out-group), spatial distance (here vs. there), and hypotheticality (certain vs. uncertain) (Liberman et al. 2007; Trope and Liberman, 2010). It has assumed that an in-group people, which are related to 'close' social distance, tend to construe objects that are psychologically near in terms of local perspectives (low-level construal), detailed, and contextualized features, whereas at a distance they construe the same objects in terms of global perspectives (high-level construal), abstract, and stable characteristics (Freitas et al. 2001; Kim et al., 2015; Liberman et al., 2007; Trope and Liberman, 2010). Due to the above features, it is possible to elaborately explain individuals' judgment and decision when the psychological distance is matched or related the part of decision problem.

In other words, the psychological distance based on the CLT could be related to how to make better

decisions and how to construct choice sets. This could be associated with our research context. For example, consumers tend to make better decisions for purchasing a product across the channels based on their choice sets to inspect the product in online channels and experience it in offline channels. In our study context, we assure that the psychological distance could play a critical role to explain consumers' channel selection behavior by considering individuals' propensity in multi-channel retailing context. Therefore, we have considered the spatial distance cue such as physical distance as one of the psychological distance because consumers are facing to the problems on both choices and judgments across channels for purchasing a product. Namely, this study examined how the spatial distance influence the consumer's choice and judgment across channels based upon the CLT.

### 2.3. Promotion-focus vs. Prevention-focus in Regulatory Focus Theory

Regulatory focus theory (hereafter, RFT) is a goal pursuit theory regarding an individual's perceptions in decision making process (Higgins, 1998). In general, it examines the relationship between individuals' motivation and the way in which they achieves their goal. According to the RFT, individuals can generally pursue different goals with various regulatory orientations and in unlike ways. In line with the above, there are two different kinds of separate and independent regulatory orientations that individuals use to achieve their goals: promotion-focus orientation and prevention-focus orientation (Higgins, 1998). Promotion-focus is more related to high level gains such as advancement and accomplishment, whereas prevention-focus is associated with high level of losses such as security and safety. For example,

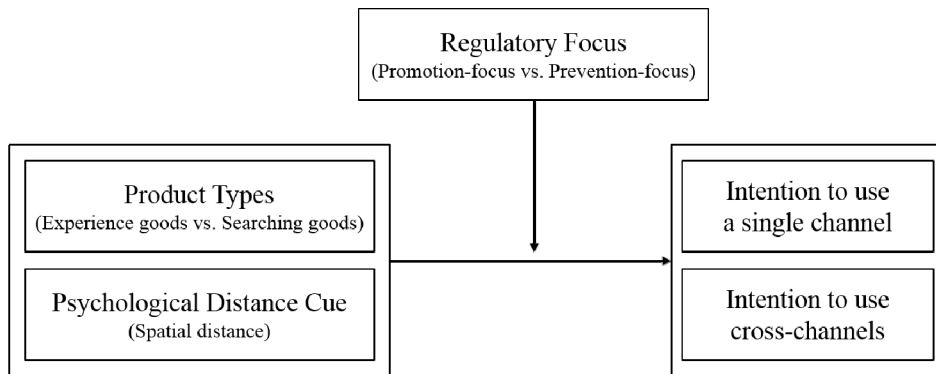
when individuals make decisions, they often imagine the possible "loss or gain" of the possible outcomes that the focus orientation will produce. At this time, an individual with promotion-focus orientation is more likely to think about achieving goals regardless of the losses, while another individual with prevention-focus orientation is more likely to consider the losses rather than achieving the goals (Brockner and Higgins, 2001; Forster et al., 1998; Higgins, 1998). Namely, these two regulatory focuses could control the influences that an individuals would be exposed to in his/her decision-making process, and determine the different ways that they achieve their goals (Shin et al., 2017).

In our study context, consumers with promotion-focus tend to concentrate on achieving their accomplishment, as known as gains, while individuals with prevention-focus tend to emphasize perceived risk, as known as losses, for making decision on channel selection to purchase a product. Based upon the above, we have considered the effects of different types of channels on consumers' channel selection behavior could be moderated by regulatory focus orientations. More specifically, this study has examined the effects of regulatory focus (e.g., promotion-focus vs. prevention-focus) in the relationships between types of channels and the channel selection behavior.

## III. Research Model and Hypotheses

### 3.1. Research Model

As we mentioned earlier, the main objective of this study is to explain consumers' channel selection behavior based on the theoretical perspective of their mental construal processes in multi-channel retailing



<Figure 1> Research Model

context. Specifically, we have investigated how consumer's mental construal processes could operate and how they are influenced by both regulatory focus and product types in multi-channel contexts. That is, the present study focuses on the individual's propensities based on both construal level theory and regulatory focus theory as well as the characteristics of goods to explain consumers' channel selection behavior.

<Figure 1> illustrates our proposed research model. As shown in <Figure 1>, we have developed a two-way ANOVA based model to examine the effects of product types (e.g., experience goods vs. searching goods) and psychological distance cue (e.g., absented spatial distance cue vs. included spatial distance cue) across regulatory focus (e.g., promotion-focus vs. prevention-focus) on consumers' channel selection behavior (e.g., intention to use single channel vs. intention to use cross-channels). Especially, in this study, followed by prior work, the psychological distance cue has been used the tangible image of a physical store to decrease the psychological distance of consumers. In the case of product, we have also considered experience goods such as jewelry, which consumers could touch and feel before purchasing (Dinlersoz and Pereira, 2007;

Kim and Oh, 2006) and searching goods as computers, which consumers can search and inspect product qualities without a touch before purchasing (Nelson, 1970).

### 3.2. Hypotheses

Previous studies on the regulatory focus have argued that the regulatory focus could act as motivational forces when consumers evaluate or choose a specific product. Based upon this argument, they have also insisted that product types with regulatory focus can affect consumer decision and information process (e.g., Meseguer-Artola and Rodríguez-Ardura, 2015; Phau and Poon 2000). For example, consumers with promotion-focus are likely to expend in making a purchase under their evaluation criteria for the alternatives on feelings rather than reasons, whereas consumers with prevention-focus were are willing to pay more when they based their evaluations on reasons rather than feelings (Avnet and Higgins, 2006). In addition, individuals with promotion-focus tend to evaluate the positive response toward products as experiential products compared to utilitarian products (Micu and Chowdhury, 2010). Thus, based on prior studies, we could assume that consumers

with promotion-focus based on feeling could be sensitive to evaluating experience goods triggered by psychological distance cues rather than that of consumers with prevention-focus. Namely, individuals with promotion-focus which is triggered by psychological distance tend to use single channel in the experience goods rather than in searching goods. Based upon the argument, we present the following hypothesis:

*H1: In the case of consumers with the promotion-focus, they are intention to use single channel in experience goods rather than in searching goods including psychological distance cue.*

According to previous studies, consumers with prevention-focus could be characterized avoidance-oriented regulation from risk and security, protection (e.g., Higgins, 1998). Namely, the absence of psychological distance cue could increase the perceived risk, which was known as losses, for individuals with prevention-focus who are focusing on reasons, rather than individuals with promotion-focus concentrating on feeling (Brockner and Higgins, 2001; Forster et al., 1998). Thus, we have assumed that consumers with prevention-focus tend to weigh decreasing transactional uncertainties related to a purchase rather than product information itself. Thus, we can suggest that consumers with prevention-focus tend to use cross-channel regardless of product types. Hence, based upon these arguments, we have presented the following hypothesis:

*H2: In the case of consumers with prevention-focus, they have intention to use cross channels in both experience goods and searching goods, when they are exposed to both the experience goods and the searching goods without psychological distance cue.*

## IV. Experiment

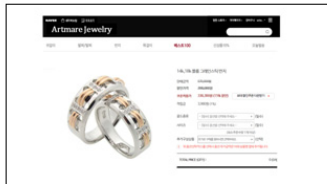
### 4.1. Subjects

In this study, we have collected 400 subjects in order to test the proposed hypotheses. A market survey research firm was hired to administer the survey to collect data. The average age of subjects was 34.11 ( $SD = 6.19$ ) with a range from 25 to 45; 50.5 percent of the subjects were females (males = 199, females = 201). All subjects were asked to answer the questions what they used preferable shopping channels when they purchase products. The 158 subjects 39.5 percent of total responses have shopped a mobile channel in mobile commerce. The 143 subjects as 35.8 percent used internet shopping channel in internet commerce. Finally 86 subjects as 21.5 percent have used offline mall to purchase products. According to our sample profiles, subjects have experiences on cross-channel shopping to just check for the products (63.7%) or purchase products (45.5%) in offline stores after they searched some products in online shopping malls.

### 4.2. Stimuli and Procedure

In this study, we have designed the experimental stimuli based on four types of scenario to test our research hypotheses. Each scenario was composed by both considering *with spatial distance cue* as one of psychological distance or *without it* and considering product types such as *experience goods* and *searching goods*. It was adopted and slightly modified from Darke et al. (2016)'s work. Followed by Darke et al., in this study, two conditions of four types has included the building image of physical store as psychological distance cue on the basis of CLT, as shown in <Figure 2>. Other two conditions has absented

[ Your favorite ring after searching in 'Artmare' Jewelry Website ]

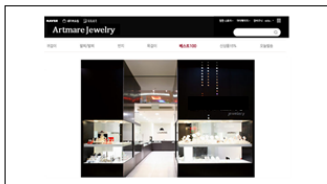


× It is estimated date of delivery in Artmare Jewelry mail.

[ Delivery date of a purchase order ]

Delivery date (except Saturday, Sunday)		Gem Certification as grading report
Already made jewelry	2 ~ 3 days	Add 2 ~ 3days
Made jewelry after you order	7 ~ 10 days	
Made jewelry and request a grading report after you order		Total 12 ~ 15 days

[ Artmare Jewelry Mall from your house within 50 minutes ]



(A) The Message of Jewelry mall included Psychological distance cue

[ Your favorite used laptop after searching in 'RepurB' Website ]



× It is estimated date of delivery in RepurB mail.

[ Delivery date of a purchase order ]

Delivery date (except Saturday, Sunday)	
Shipping date	2 ~ 3 days
Delivered date	2 ~ 5 days

[ RepurB Mall from your house within 50 minutes ]



(B) The Message of Laptop mall included Psychological distance cue

<Figure 2> Examples of Stimuli

both the picture and the information of physical store. The brands of both stimuli were named a fictitious for controlling the brand familiarity.

Meanwhile, in the case of product types, we have chosen a jewelry earring as an experience good and refurbished laptop as a searching good which relatively represented higher risk and evoked the trust in the retailer. Since the jewelry is a high involvement product category, it is closely related to experience goods. Thus, consumers have to heavily rely on sellers' information of the product (Darke et al., 2016). Darke et al. have also mentioned that a computer, which is representative to a high involvement same as a jewelry ring, was one of high-selling products in online stores. Thus, in product types, we has chosen two stimuli such as a jewelry ring as experience goods and a refurbished laptop as searching goods.

After designing the stimuli, we conducted the ex-

periments by consisting of four experimental conditions toward each subject. The experiment was developed and refined as follows. First, all subjects were randomly exposed to one of the four conditions after reminding them of their nearest experiences on the shopping. Then, it was requested to assume to buy experience and searching goods like real situation in front of subjects. Even though it is different goods, there are controlled same price around 300\$ for controlling involvement of product. It needs to concentrate on assuming as own situation of subjects. Each stimulus was allowed to watch or read for one minute. They were asked to complete survey including demographic and background information.

### 4.3. Experimental Design

Our experiments have utilized four types of in-



roducing an online mall as the independent variable. The four types of independent variables consisted of 1) product types such as experience versus searching goods and 2) whether including the spatial distance as psychological cue or not derived from Darke et al. (2016). More specifically, we have designed Type 1 which is the jewelry shop as experience goods in online stores without the physical store. In Type 2, it was the jewelry shop with both online and offline store as shown in <Figure 2>. In the same form of Type 1 and Type 2 of jewelry shop as experience goods, we have regarded Type 3 as the refurbished laptop shop as searching goods in online store only. In Type 4, it was the refurbished laptop shop with both online and offline stores.

We have also employed a two regulatory focus (promotion-focus vs. prevention-focus)  $\times$  4 product types and psychological distance cue (Jewelry and one channel, Jewelry and cross-channel vs. Laptop and one channel, Laptop and cross-channel) between-subjects design. All subjects were randomly assigned to one of the four conditions. In line with the dependent variable (i.e., intention to use single channel and intention to use cross-channel), we have adopted the scales on intention to use single channel from Verhagen and van Dolen (2009) and Holbrook and Hirschman (1982) and also slightly modified Chiu et al.(2011) and Gu and Tayi (2017)'s scales on the intention to cross-channel in this study.

In addition, we have regarded both the perceived risk and psychological ownership on a product as control variables to keep the same in each trial. This study was adopted from Suplet et al.(2009) to use the 3-item scales and also was adopted from Dyne and Pierce (2004)'s 3-item scales. All survey items for the variables in this study were measured on a 7-pont Likert scale, which ranged from strongly disagree' (1) to 'strongly agree' (7) (see in <Appendix

A>). For testing hypotheses, we have conducted a two-way ANOVA.

#### 4.4. Measures

##### 4.4.1. Manipulation Check

We have confirmed the manipulation check to assess whether the manipulation of the independent variables impact the dependent variables in four types of stimuli. Two items were assessed to check the manipulation regarding the presence or absence of psychological distance cues used from the Darke et al. (2016). For example, subjects were asked to respond "Do you feel like there is a real shop in offline?," and "How close do you feel the spatial distance between you and the mall?." We have conducted the *t-test* for manipulation check between the absence and presence of psychological distance cue which is measured as existence of real offline store ( $M_{\text{absence}} = 3.82$  vs.  $M_{\text{presence}} = 4.70$ ,  $t = -4.04$ ,  $p < 0.01$  for jewelry shop and  $M_{\text{absence}} = 3.25$  vs.  $M_{\text{presence}} = 3.76$ ,  $t = -2.32$ ,  $p < 0.05$  for laptop shop). In addition, this study found that subjects recognize the existence on a real store in condition with the spatial distance cue than without condition ( $M_{\text{absence}} = 4.60$  vs.  $M_{\text{presence}} = 4.27$ ,  $t = 2.10$ ,  $p < 0.05$  for jewelry shop and  $M_{\text{absence}} = 4.63$  vs.  $M_{\text{presence}} = 4.16$ ,  $t = 2.64$ ,  $p < 0.05$  for laptop shop). The lower mean of spatial distance has signified more near of the psychological distance, which means that the presence of the spatial cue can be interpreted in more near than the absence. Thus, we have confirmed the manipulation check.

##### 4.4.2. Moderator

For testing the moderating effect of regulatory

&lt;Table 1&gt; Item-factor Loading of the Regulatory Focus Scale

Construct	Items	Item loadings	
Prevention-focus	pre3	.856	.031
	pre4	.855	-.050
	pre5	.774	-.058
	pre6	.749	-.117
Promotion-focus	pro5	.006	.829
	pro4	.172	.802
	pro6	-.151	.705
	pro2	-.194	.647
% of the variance explained by the factors		33.93	28.35
Reliability (Cronbach's alpha)		0.83	0.74

Note: Extraction Method: Principal components analysis; Rotation Method: Varimax with Kaiser Normalization

focus in the relationship between product types, psychological distance use and channel selection behavior, we first conducted exploratory factor analysis by using PCA (principle component factor analysis) to verify both convergent and discriminant validity of 12 items (6 items for prevention-focus and 6 items for promotion-focus) derived from Higgins (1998) and Higgins et al. (2001). After conducting the PCA, four items (e.g., pre1, pre2, pro1, and pro3) were dropped in subsequent analyses due to lower factor loadings (Velicer and Fava, 1998). The results of PCA is indicated in <Table 1>.

In the reliability test, it was done by examining the Cronbach's alpha to measure the internal consistency of the construct. As shown in <Table 1>, two constructs (prevention-focus and promotion-focus) in this study all exhibited Cronbach's alpha of 0.74 or higher.

#### 4.4.3. Control Variables and Dependent Variables

In this study, we attempt to test the moderating effect of regulatory focus in the relationship between

product types/psychological distance cue and consumers' channel selection behavior. In order to do that, we controlled that they have to be the same throughout our experiment to make it fair. Thus, this study has considered both the perceived risk (Lim et al., 2017; Supletet al., 2009) and psychological ownership (VanDyne and Pierce, 2004) of the products as control variables. These two variables could independently influence the dependent variable in this study. For example, if consumers feel a stronger of psychological ownership of product, they have exhibited stronger demand for products (Peck and Shu, 2009). Thus, this study has considered these two variables as control variable to check the consistent patterns of results.

In addition, we have examined the Cronbach's alpha of both perceived risk and psychological ownership. After examining the Cronbach's alpha, two variables exhibited Cronbach's alpha of 0.88 or higher (perceived risk = 0.91, psychological ownership = 0.88).

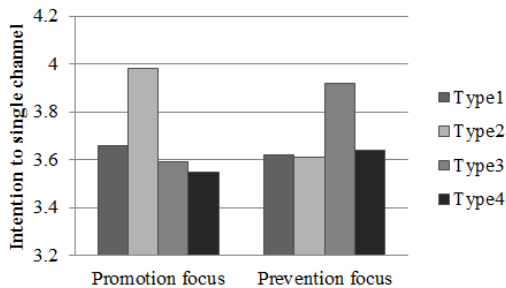
In dependent variables, there are two variables such as intention to use single channel and intention to use cross-channel. First, the intention to single

channels dependent variables was assessed using three items, which are modified from Verhagen and van Dolen (2009) and Holbrook and Hirschman (1982). Its Cronbach's alpha was 0.94. Furthermore, The three scales of intention to use cross-channel is modified from Chiu et al. (2011). Its Cronbach's alpha was 0.64, which is acceptable to meet the established criteria.

#### 4.5. Results and Discussion

As shown in <Table 2>, hypothesis 1 in this study is supported. Testing H1 has indicated that there was significant interaction effect between different types and regulatory focus ( $F(1,390) = 2.86, p < 0.05$ ). Based upon the result, we could explain that consumers with the promotion-focus tend to have intention to use single channel in the experience goods with psychological distance cue than that if searching goods.

As shown in <Figure 3>, there are four types; 1) jewelry shop for Type 1, 2) jewelry shop with



<Figure 3> Results of Testing H1

<Table 2> Results of Testing H1

Dependent Variable	Independent Variables	Mean Square	F	p
Intention to use single channel	A. Regulatory focus	0.06	0.06	ns
	B. Different types based on both channels and goods	3.08	2.94	0.03
	C. A×B	4.25	4.06	0.01

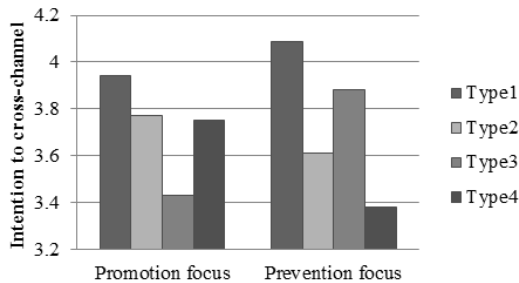
including psychological cue for Type 2, 3) laptop shop for Type 3, 4) laptop shop with including psychological cue for Type 4. Consumers with promotion-focus are more likely to have intention to use a single channel in the Type 2 ( $M_{prevention} = 3.61$  vs.  $M_{promotion} = 3.98, t = 2.20, p < 0.05$ ). Namely, the effect of promotion-focus on intention to use a single channel is much more positive in experience goods than that of searching goods with the psychological distance. On the contrary, consumers with prevention-focus tend to use intention to use single channel in Type 3. Based on this result, we can explain that those who have the prevention-focus are likely to make a purchase decision based on estimations on their reason in searching goods. Namely, they have responded to a prevention message focusing on searching goods regardless of existence on the psychological distance.

In testing hypothesis 2, we found that consumers with prevention-focus are likely to have intention to use cross-channels in both experience and searching goods without the psychological distance cues. As shown in <Table 3>, this study has also found that there was a significant interaction effect between the prevention-focus and different types base on both channel and goods without the psychological distance ( $F(1,390) = 2.95, p < 0.05$ ).

As shown in <Figure 4>, the effects of prevention-focus on the intention to use cross-channel was positive, when they exposure both Type 1 ( $M_{prevention} = 4.09$  vs.  $M_{promotion} = 3.94$ ) and Type 3 ( $M_{prevention} = 3.88$  vs.  $M_{promotion} = 3.43$ )

&lt;Table 3&gt; Results of Testing H2

Dependent Variable	Independent Variables	Mean Square	<i>F</i>	<i>p</i>
Intention to use cross-channel	A. Regulatory focus	0.08	0.05	ns
	B. Different types based on both channel and goods	4.15	2.95	0.03
	C. A×B	3.23	2.30	0.08



&lt;Figure 4&gt; Results of Testing H2

without psychological distance. Hence, hypothesis 2 is supported. For those who have prevention-focus is responded to the types without the psychological distance cue, regardless of product types. This finding has indicated that consumers with the prevention-focus could be loss-oriented considering consumers' shopping orientation (Kaltcheva and Weitz, 2006).

According to previous work (e.g., Avnet and Higgins, 2003), consumers with the prevention-focus tend to consider the shopping as a kind of tasks to be done. Thus, consumers with the prevention-focus will be satisfied when they accomplish their mission as efficiently as possible rather than hedonic shopping related to promotion-focus. After all, we can predict that prevention-focus oriented consumers tend to seek more information on a specific product in order to gain confidence for their choice and judgment. In sum, this study has found that those who have prevention-focus are likely to have intention to use cross-channel when the absence of psychological distance cue, regardless of product types.

#### 4.5.1. Post-hoc Analysis

In this study, it is worth to test the relationship between product types and gender difference in multi-channel context as post-hoc analysis. Previous studies have pointed out the role of the gender difference as one of consumer demographic characteristics, which influenced on consumer behavior in the online purchasing and decision making (Amin et al., 2015; Pascual-Miguel et al., 2015). For example, Pascual-Miguel et al. (2015) have provided empirical evidences that the female was oriented for the hedonic purpose as entertainment of consumption rather than utilitarian motivation, compared to the male. The main similarities on gender differences of the prior work are that the product types influence the intention to purchase for the female, not for the male in the online shopping contexts. Thus, we have additionally examined how the gender differences influence the relationship between product types and intention to use a single as well as intention to use cross-channel.

As indicated in <Table 4>, we found that there was a significant interaction effect of gender difference in the relationship between product types and channel selection behavior ( $F(1,390) = 2.38, p < 0.05$ ).

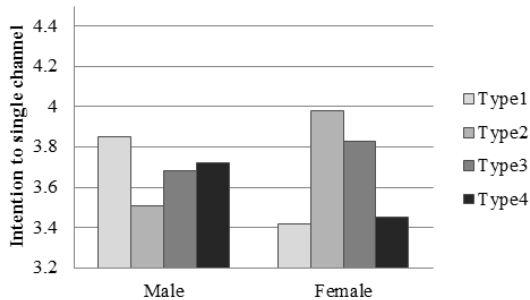
As shown in <Figure 5>, the female tends to have intention to use single channel for purchasing searching goods with physical store image and information in Type 2 as near psychological distance rather than the male ( $M_{male} = 3.51$  vs.  $M_{female} = 3.98$ ).

<Table 4> Results of Interaction Effect on Gender Differences

Dependent Variable	Independent Variables	Mean Square	F	p
Intention to use single channel	A. Gender	2.27	1.92	ns
	B. Different types based on both channel and goods	2.18	1.85	ns
	C. A×B	3.96	3.35	0.02

<Table 5> Results of Interactivity by Gender in Intention to Use Cross-channel

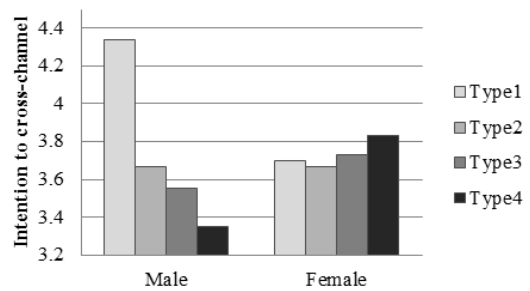
Dependent Variable	Independent Variables	Mean Square	F	p
Intention to use cross-channel	A. Gender	.00	.00	ns
	B. Different types based on both channel and goods	2.74	2.74	0.04
	C. A×B	5.59	4.00	0.01



<Figure 5> Relations between Four Types and Gender Impact on Intention to Use Single Channel

As shown in <Table 5>, in Type 1, the male was likely to have intention to use cross-channel for purchasing the searching goods without the psychological distance cue ( $F(1,390) = 2.99, p < 0.05$ ). Thus, our findings have provided an empirical evidence that the effect of product types (i.e., experience goods) on intention to use cross-channel for male was much greater than that of female.

As shown in <Figure 6>, the male tend to have intention to use cross-channel compared to the female. According to previous work, individuals' purchase in online was influenced by either their intrinsic motivation or hedonic purposes rather than by either extrinsic motivation or utilitarian purposes (Pascual-Miguel et al., 2015; Venkatesh et al., 2012).



<Figure 6> Relations between Four Types and Gender Impact on Intention to Use Cross-channel

In line with Wolin and Korgaonkar (2003)' work, they had presented that the male navigated commercial websites for the pleasure purpose, while the female surfed the websites for the shopping reasons. Based upon the above arguments, we may explain that the male is likely to switch between online and offline channel for utilitarian purpose in Type 1.

## V. Conclusion

### 5.1. Summary

In this study, we attempt to examine the joint effects of regulatory focus triggered by the psycho-

logical distance cue and product types on consumers' channel selection behavior in multi-channel retailing contexts. In order to do that, this study has developed and tested a two-way ANOVA models of how both regulatory focus (e.g., promotion-focus vs. prevention focus) from the psychological distance cues and independently and jointly affect individuals' channel selection behavior (e.g., intention to use single channel vs. intention to use cross-channels). The main contribution of this study is that we have developed and tested theoretically grounded model of consumers' channel selection behavior in multi-channel retailing contexts by adopting both CLT and RFT perspective on the phenomenon. This study has held important implications for both research and practice.

## 5.2. Implications for Research

Based upon our findings, this study has several implications for research. First, the current study has developed and tested a two-way ANOVA model that combines regulatory focus (promotion-focus vs. prevention-focus) from RFT triggered by psychological distance cue based on CLT into explain consumers' channel behavior. In particular, this study has offered empirical evidences that the spatial distance cue as one of the psychological distance influenced the consumer's choice and judgment across channels. While both CLT and RFT has been considered as useful theoretical lens to explain individuals' judgment and decision making, there has been little empirical work that applied to online/offline channel retailing context. Our findings contribute to theoretical explanations that connect both CLT and RFT to consumers' channel selection behavior in relevant literature.

Second, we have used the term channel selection

behavior, a matter of consumers' choice, which consisted of two specific behavior such as intention to use a single channel and intention to use cross channel in this study. In multi-channel surroundings, consumers can move easily among different channels for enjoying the benefits of shopping for making a final pick. Taken together, the channel selection behavior indicates that recent consumers are exposed in multi-channel shopping journeys. Especially, this study tried to examine how consumers' channel selection behaviors are different by depending on the product types (e.g., search and experience goods). In this regard, our classification can help to explain the complexity of consumers' shopping behaviors in multi-channel retailing contexts and contribute to existing body of knowledge on multi-channel and omni-channel literature.

Finally, according to our additional observation, we found that there was a distance gender difference in the relationship between product types (e.g., experience vs. searching goods) and channel selection behavior. By providing empirical evidences on gender differences, our results contribute to the relevant research on consumers' shopping behaviors by considering gender issues.

## 5.3. Implications for Practice

This study also has some practical implications both online shopping sites and offline stores. First, it is important for both online and offline retailers to understand why and how consumers frequently switch between online and offline channels. In particular, our empirical findings provide a simple and powerful means that can help to place product arrangement on consumers' cross channel search and purchase behavior. Our findings have also meaningful guidelines for both online and offline retailers which

are interested in coordinating their product merchandising decisions.

Second, this study attempted to examine the effects of both product types (experience goods vs. searching goods) and psychological distance cue (absence vs. presence of building picture) across regulatory focus (promotion-focus vs. prevention-focus) on the channel selection behavior. In our findings, consumers with promotion-focus are more likely to use a single channel in the experience goods (e.g., jewelry ring) rather than in the searching goods (e.g., refurbished laptop computer) when there exists the psychological cue. In addition, consumers with prevention-focus are more likely to use cross-channel in both search goods and experience goods when they are exposed to both experience goods and search goods without the psychological distance cue. From the standpoint of sellers, it should be noted that the channel selection behavior could be depending on either product types or the existence of psychological distance cues. Therefore, both online and offline stores need to find a way to be applicable to regulatory focus issues to their own multi-channel business.

Finally, according to our post-hoc analysis, this study has presented that the gender difference may be significant role of understanding consumers' channel selection behavior in multichannel contexts. It contributes to both online and offline sellers who seek to discover appropriate market segmentation strategies as well as product assortments.

#### 5.4. Limitations and Future Research

While this study holds implications for both research and practice, as is the case with all studies this one is subject to limitations and it is important to point these out. First, this study has identified product types as experience and searching goods.

Although we had designed the stimuli derived from previous work, additional research needs to consider a variety of product types to explain consumers' channel selection behavior. Another limitation of our study is that we did not attempt to consider psychological factors such as need for cognition or self-esteem as moderator. Previous studies has consistently suggested that these variables related to enhance consumer self-confidence to choice and judgment of a problem. For example, the self-esteem reflects that an individuals' overall evaluation of his or her own worth. It leads to consumer's success or failure on a task (Baumeister, 1997). In addition, the need for cognition is a personal tendency reflecting the extent to engage in (Cacioppo et al., 1996). These variables may be alternative triggers to explain consumers' judgment and decision making in multi-channel retailing contexts. Thus, future research need to consider psychological factors as the moderator. In spite of the aforementioned limitations, we believe that our work offers important both research and practical implications in relevant literature.

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<Appendix A> Measurement Items

Constructs	Items		Sources
Regulatory focus	1	Being cautious is the best way to avoid failure.	Higgin (1998) Higgin et al. (2001)
	2	To avoid failure, it is important to keep in mind all the potential obstacles that might get in your way.	
	3	To avoid failure, one has to be careful.	
	4	To achieve something, it is most important to know all the potential obstacles.	
	5	To achieve something, one must be cautious.	
	6	Being cautious is the best policy for success.	
	7	To avoid failure, you have to be enthusiastic.	
	8	Taking risks is essential for success.	
	9	To achieve something, you need to be optimistic.	
	10	To achieve something, one must try all possible ways of achieving it.	
	11	You have to take risks if you want to avoid failing.	
	12	If you want to avoid failing, the worst thing you can do is think about making mistakes.	
Intention to use a single channel	1	I might purchase the product in online mall.	Modified from Holbrook and Hirschman (1982); Verhagen and van Dolen (2009)
	2	I would probably intention to purchase in online mall.	
	3	I would consider purchase the product in online mall.	
Intention to use cross-channels	1	I would search in this online store but purchase in another offline store when I bought similar products.	Chiu et al. (2011); Gu and Tayi (2017)
	2	I would search in an offline store, but purchase in this online store.	
	3	I would search in an offline stores but purchase in other stores when I bought other offline products.	
Perceived risk	1	Purchasing a product from this shopping mall would be risky.	Suplet et al. (2009)
	2	There is a good chance of a problem if I purchased a product from this shopping mall.	
	3	I would be worried about being disappointed if I purchased the product from this shopping mall.	
Psychological ownership	1	I feel a strong sense of closeness with these products.	Van Dyne and Pierce (2004)
	2	I feel connected to these products.	
	3	I feel that these products belong to me.	

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