

RESEARCH

Open Access



# Factors affecting the fashion purchase decision-making of single Koreans

Jiyong Lee<sup>1</sup> and Jinsook Hwang<sup>2\*</sup> 

\*Correspondence:

jsh@konkuk.ac.kr

<sup>2</sup> Professor, Department of Apparel Design, College of Art & Design, Konkuk University, 1 Hwayang-dong, Kwangjin-gu, Seoul 05029, South Korea

Full list of author information is available at the end of the article

## Abstract

The number of single consumers in Korea has recently undergone a rapid increase, making this demographic a major consumer market. Through this study, we attempt to better understand this group by focusing on single consumers' decision-making and the factors influencing their fashion purchases. To this end, we investigate the relationships between feelings of self-consciousness, information search tendencies, decision-making, and post-purchase satisfaction of single-person households after fashion purchases. Data were obtained from 717 questionnaire responses from individuals aged 20–49 years from single-person households. The results of the study showed that the relationship between private self-consciousness and introverted information searches was stronger than that between private self-consciousness and extroverted information searches. The relationship between public self-consciousness and extroverted information searches was stronger than that between public self-consciousness and introverted information searches. In addition, introverted information searches had a positive relationship with self-determination, while extroverted information searches were significantly related only to non-self-determination. Finally, the positive relationship between satisfaction and self-determination was stronger than that between satisfaction and non-self-determination. Overall, the study identified important factors affecting the decision-making process of single Koreans. These findings are vital for Korean fashion marketers, and managerial suggestions are included to implement marketing strategies to target single people.

**Keywords:** Single-person households, Self-consciousness, Information search, Decision-making, Post-purchase satisfaction, Fashion, Marketing, Consumer behavior

## Introduction

The increase in single-person households in Korea is a notable phenomenon affecting the fashion business, and diverse markets have arisen targeting these households (Byun 2015; Choi 2016; Kim 2015a, b; Lee 2016). According to data released by Statics Korea in March 2018, <http://kostat.go.kr>, online shopping transactions have increased by 20.1% thanks to growing numbers of both single-person and double-income households. The number of single-person households rose from 6.9% in 1985 to 27.2% in 2015 and is expected to increase to 36.3% by 2045 (Park 2018). By 2019, single-person households are expected to outnumber multi-family households (Jang 2018). Given their increasing number and importance in many consumer markets, studies have examined single consumers' food, furniture, and leisure purchasing behavior (Kang 2013; Kim et al. 2015b;

Lim 2014). However, there have been very few studies focusing on single consumers' fashion purchases.

With the growth of the Internet and the increasing availability of smartphones, finding information has become both faster and easier. This ever-growing flood of information means that consumers spend much more time researching their potential purchases (Kim et al. 2015a). In the case of fashion purchases, which carry with them high social and psychological risk (Kim 2002), this increasing information availability means that consumers may have difficulty making choices. Indeed, this difficulty with decision-making is becoming a widespread phenomenon: researchers call modern consumers "Generation Maybe" and, in Korea, this phenomenon is referred to as "decision-making disorder" (Kim et al. 2015a; Oliver 2014). This issue is related to the "bandwagon effect," which leads individuals to select an item based on others' decisions regardless of their own preferences (Kim et al. 2015a; Zaki et al. 2011) and is especially common among consumers in their 20 s to 30 s (Kim et al. 2015a).

Decision-making is the act of choosing between two or more alternatives (Bae 2008). Each individual is the main actor of his or her own life and a cause of his or her own decisions; everyone is free to make choices without external influences or interference (Wehmeyer 1992). Self-determination can be understood as taking responsibility for oneself with minimal outside influence (Bambara et al. 1998). Self-determination theory addresses the importance of self-determination and its relationship with innate psychological needs and psychological well-being (Ryan and Deci 2017). Generally, self-determination is more likely to lead to a successful outcome and psychological well-being (Deci and Ryan 2000; Ryan and Deci 2017; Welters et al. 2014), but questions remain regarding how this pertains to single adults. How does living alone affect difficulty with decision-making? How do single adults show self-determination in their purchases, and what factors affect their decision-making?

Korea is traditionally a collectivist society, and Koreans place great value on others' evaluation and attention (Cho and Myung 2001). In particular, they are very conscientious about how they are seen by others in terms of fashion and appearance (Chun 2004). The rise of single consumers as an important target group is related to the fact that individualism has been increasing in Korean society and that individualism is intertwined with the digital revolution (Chung 2003; Park 2011). Because of the growth of digital technology, single consumers' independence and autonomy have increased since they no longer require face-to-face meetings (Chung 2003). Since individualism and collectivism coexist in modern Korea, it is important to understand the effect these two conflicting societal characteristics have on how single Korean adults make decisions regarding fashion purchases.

Despite the existence of research on the shifting consumer behavior of newer generations, very few studies have focused on Korean single consumers, especially within the fashion industry. Since Koreans value their relationships with other people and rely on others' opinions when making choices (Jung 2012; Lee 2008), some tension may exist between single Korean adults' independence and dependence. This study includes self-consciousness as an important variable affecting fashion decision-making. Self-consciousness is the extent to which an individual's attention is concentrated on him- or herself (Duval et al. 1972). It is an important variable in determining an individual's

actions (Jung 2001; Lee 2008) and has been studied in relation to individualism versus collectivism (Cho and Myung 2001; Chun 2004). This study also focuses on information search tendencies. With the soaring amount of surplus information available in “Generation Maybe’s” society (Oliver 2014), it has become important to understand how single Korean adults search for information on fashion purchases. Finally, this study evaluates the self-determination of single Korean adults and their satisfaction with their decision-making. Self-determination theory says that an individual’s well-being and satisfaction come from self-determination (Ryan and Deci 2017). An individual’s self-consciousness is an important factor in decision-making (Ryan and Deci 2017), and individuals need to search for information and accumulate knowledge to evaluate their strengths and weaknesses in terms of self-determination (Rhyou 2002; Wehmeyer et al. 1996). The following section outlines this study’s literature review. A theoretical framework and a detailed literature review on the major relevant variables follow.

## Literature review

### Theoretical framework

This study seeks to determine how fashion purchasing decisions are made in Korean single-person households and the factors affecting this decision-making process, specifically self-consciousness, information search tendencies, decision-making, and post-purchase satisfaction. To do so, we rely on Schiffman and Wisenblit’s (2018) consumer decision-making model, which divides the process into three stages: input, process, and output. The input components consist of the external influences, such as marketing methods, sociocultural influences, and communication. The process stage includes need recognition, information search, and evaluation of purchase alternatives. Schiffman and Wisenblit (2018) note that psychological concepts such as motivation, perception, personality, and attitudes influence this middle stage. Finally, the output consists of purchase decisions, behaviors, consumption, and post-purchase evaluations.

While applying Schiffman and Wisenblit’s (2018) model in this study, we examine self-consciousness as a psychological factor influencing the process stage. Self-consciousness is the extent to which an individual’s attention is focused on him- or herself and affects his or her behavior (Lyubomirsky and Nolen-Hoeksema 1995). The process stage includes information search, which begins when consumers need information to purchase or consume a product (Schiffman and Wisenblit 2018) and involves the mental and physical activities necessary to gain information in order to make purchase decisions (Kim et al. 2001). The output of our model includes self-determination and post-purchase satisfaction. Self-determination is the individual’s own decision-making during a purchase, while post-purchase satisfaction is the final output and is related to decision satisfaction.

In addition to self-determination theory, this study explores the relationships among decision-making variables. Self-determination theory is a macro-level theory dealing with innate psychological needs and psychological well-being. The theory states that an individual must fulfill three basic psychological needs: competence, relatedness, and autonomy (Ryan and Deci 2017). These basic needs are essential for initiating a behavior that leads to psychological growth and well-being. Autonomy is especially crucial in self-determination. Autonomy is the self-governing need to self-regulate one’s experiences

and actions, and it is related to a sense of voluntariness (Ryan and Deci 2017). According to self-determination theory, acting with autonomy leads to self-determination, and this self-endorsed behavior contributes to satisfaction with one's decision-making. If single adults engage in autonomous action, or, in the context of this study, self-directed and self-regulated information search, they are considered self-determined in decision-making, which leads to decision satisfaction.

As a result of this model, we propose that (a) self-consciousness affects information search, (b) information search affects decision-making (self-determination), and (c) self-determination influences post-purchase satisfaction.

### Single Korean consumers

Korean society has traditionally held a strong negative image of unmarried people; therefore, in the past, research has not highlighted this group (Yu 2008). However, recently, people living alone have become societal objects of envy (Choi 2011) because of the fact that the country's rapid urbanization and industrialization have caused various social and economic effects, including the fact that, as a result of metropolitan residential overcrowding, the traditional family has become less popular than single-person households (Kwon 2015; K. M. R. I. 2011). The increase in the proportion of single adults is also due to increased educational standards for women, growing economic independence, increased unemployment, increased wedding costs, marriage avoidance, and late marriage caused by childcare problems (Lee 2004, 2005; Yang 2007). In addition, individualism has become increasingly prevalent because of an increase in the divorce rate, decreased gender discrimination, the development of the Internet, and the popularity of cultural activities marketed to single adults. Finally, the desire to live alone has played a role in increasing the number of single adults (Kang 2013; Kim 2016; Lee 2005, 2013). Thanks to the digital revolution, individualism has become more valued, and single adults are now able to enjoy being alone while communicating with others virtually and freely expressing themselves online (Kim 2007; Lee 2005; Park 2011).

Since the 2000s, studies on both elderly single-person households and unmarried single-person households have become more popular (Sung and Lee 2001; Yuh 2003; Lee and Kim 2004; Lee et al. 2011), as have those addressing single people's purchasing behavior in terms of food, furniture, and interior design (Han 2012; Won and Jung 2014; Kwon 2015; Kang 2013; Kim et al. 2015b; Lim 2014). However, in the fashion field, there remain very few studies on decision-making in single-person households.

Studies on single consumers have shown that, compared to other consumer segments, they tend to be more independent, care less about others' evaluations, and enjoy their lives without the interference of others (Lee 2013). Some studies, however, show that these adults are sensitive to others' opinions and are interested in fashion and trends (You 2013; Lee and Kang 2009). Suh and Shin (2012) demonstrate that single female consumers use diverse methods to search for information, and their lifestyles affect their sportswear purchasing behavior. For example, what they call the "self-achievement" lifestyle group received information from salespeople, while the "active fashion" group obtained information from the Internet and magazines.

Although self-consciousness is an important factor in decision-making, there have been very few studies on self-consciousness and the decision-making of single

consumers. Future research is needed to investigate how single consumers search for fashion information and how this information search influences their decision-making. Studies have shown that the evolution of technology has made it easier to live alone, yet it is unclear whether these adults autonomously search for information online or visit physical stores to get information face-to-face. As individualism continues to expand, it is necessary to understand what factors influence the decision-making of single adults.

### **Self-consciousness and information search**

#### ***Self-consciousness***

Duval et al. (1972) define *self-consciousness* as the extent to which an individual's attention is concentrated on him- or herself. Likewise, Fenigstein et al. (1975) describe it as the tendency to consistently and continuously focus one's attention on oneself. Others have defined self-consciousness as the effect of self-absorption on an individual's temperament (Cho and Kim 2000) and as an important variable in determining an individual's actions (Jung 2001; Lee 2008). Fenigstein et al. (1975) identify two major types of self-consciousness: private and public. These measure two different dimensions and can function as independent scales (Chun 2004; Kang 2010). *Private self-consciousness* is a focus on one's inner self, though one's inner thoughts, feelings, and motivations are not easily revealed (Cho and Kim 2000; Fenigstein et al. 1975). Individuals with high private self-consciousness do not rely on external influences; instead, they are responsive to internal feelings and are accurately aware of themselves and their perceptions (Claeys 1984; Scheier 1980; Scheier and Carver 1977; Turner et al. 1981). *Public self-consciousness*, meanwhile, is a focus on one's image as perceived by others: rather than valuing an individual's internal state, it places value on others' reactions (Buss 1980; Elliott 1984; Fenigstein et al. 1975). Individuals with high public self-consciousness are sensitive to how they are seen by others. This type of self-consciousness is particularly apparent in Asian cultures, where individuals are heavily influenced by groups. It is also more evident among women than among men (Cho and Son 2010; Jung 2012; Kim 2003a; Lee 2008).

#### ***Information search***

Copland (1923) was the first to study information search, which he defined as the search for information based on consumers' motivations and knowledge. In other words, information search provides useful information about something of which one is not aware (Berlyne 1957; Engel et al. 1982). Similarly, Song (1994) defines *information search* as the attempt to find alternatives and solve problems. Within purchasing behavior, this concept implies the attempt to gain knowledge through the external environment, including intentional efforts to reduce uncertainty (Lim et al. 2006).

Existing studies address two types of information search: internal and external. Internal searches are based on consumers' own memories of product information (Won 2012). Consumers conduct external searches, meanwhile, when they have no prior knowledge and need information from outside sources. This is normally done when there is not enough information for an internal search. However, the increasing power of the Internet makes it difficult to differentiate between internal and external sources (Rha 2010). In addition, while consumers play an important role as

information source providers, the boundaries between internal and external searches remain unclear, suggesting the need for more studies on this topic (Choi and Rha 2012).

In this study, therefore, we differentiate the concept of information search into two types: introverted and extroverted. *Introverted search* means that a consumer's search is directed based on the ideas, memories, and reactions inside his or her head; introverted searchers are focused on their internal thoughts and prefer indirect contact (Chon 2016; Lee and Kwak 2017; The Myers-Briggs Foundation 2019). During this type of search, information may come from consumers' memories (Won 2012). The popularization of smartphones and the development of communication technology mean that individuals may also search for online sources based on their inner knowledge (Dolan and Moon 2000; Lim and Dubinsky 2004; Verhoef and Langerak 2001). Such online searches are based in internal knowledge because they begin by recalling web pages, bookmarks, customized apps, and/or memos used in previous searches (Ho et al. 2016). In other words, during their online information search, users re-experience and revisit a destination. Mobile searchers also store the images and information found during an online information search on their digital devices (Ho et al. 2016). Therefore, Internet searches are related to memories and help the individual recall and retrieve data, thereby reducing memory overload (Kye and Kim 2005; Lee 1998). Because Internet searches are self-regulatory and autonomous, consumers' use of diverse information helps them accumulate knowledge, increases their self-confidence and competence, and, eventually, increases their purchase performance (Kye and Kim 2005; Lee 1998). Webster et al. (1993) argue that consumers can control social interactions during virtual consumption, and the perception of this control gives them pleasure (Hoffman and Novak 1996). In addition, consumers become more autonomous through Internet searches; they easily and quickly digest diverse information, which helps them make decisions for themselves (Chung 2003; Park 2011).

In *extroverted searches*, on the other hand, consumers direct their search based on their involvement in events and activities outside of themselves with a focus on external changes and challenges and direct interpersonal relations (Chon 2016; The Myers-Briggs Foundation 2019). During extroverted searches, the direction of finding information points to the outside; consumers may acquire information about actual products from offline stores, fashion DMs (direct mailings), and salespeople. The strength of an offline channel with physical stores, in addition to its ability to provide products, is its ability to contact consumers. All of the products offered through offline channels are available for immediate purchase, and the purchased products are immediately available to consumers (Lee et al. 2012). Polegato and Wall (1980) found that fashion leaders used more types of sources than their followers and frequently used exhibitions in storefronts and observation of clothes worn by other people in public places. In extroverted searches, consumers are dependent on external sources, and their self-regulation is relatively low. Such information searches have low perceived risk and high involvement, as they rely on outside sources for information (Lee and Pahng 2004; Rohm and Swaminathan 2004). These searches are particularly common for high-profile or high-risk products, including fashion, for which consideration of purchase requires a large amount of information (Kim 2009).



### ***The effects of self-consciousness on information search***

Since self-consciousness drives individuals' behavior, there have been studies exploring its effect on clothing behavior (Chun 2004; Kim 1999; Shim and Koh 1997). Individuals with high private self-consciousness are responsive to their internal feelings and accurately aware of themselves and their perceptions (Claeys 1984; Scheier 1980; Scheier and Carver 1977; Turner et al. 1981). They may seek information on their own instead of relying on others, since they are highly attentive to their inner feelings and opinions. During an introverted search, consumers autonomously search for self-regulated information. Therefore, individuals with high private self-consciousness may pursue an introverted information search by focusing on their internal memories and experiences as well as Internet searches. Individuals with high private self-consciousness seek autonomy and individuality (Cho and Myung 2001). In addition, these individuals may engage in extroverted information searches, visiting physical stores to get information on fashion to increase their confidence and reach a more informed decision. There is a positive relationship between private self-consciousness and fashion innovativeness (Chun 2004), meaning that these individuals trust their own fashion choices, adopt fashion trends early, and are more willing to search for information directly (Choi and Rhee 1987; Chun 2004).

On the other hand, individuals with high *public* self-consciousness are more focused on what others think of them, causing them to look for information from extroverted sources (Chun 2004), but they are also sensitive to others' evaluations, leading them to seek information from introverted sources. Individuals with high public self-consciousness value interpersonal dependence and seek others' advice (Cho and Myung 2001; Chun 2004), and there is a positive relationship between public self-consciousness and fashion conformity (Chun 2004). Individuals with high public self-consciousness are sensitive about how they are seen by others and may search diverse information sources in an effort to relieve their social anxiety (Chun 2004; Shim and Koh 1997).

On the basis of previous research, in this study, we propose that private and public self-consciousness may be positively associated with introverted and extroverted searches. However, the relative importance of private self-consciousness and public self-consciousness may differ. Specifically, the association of private self-consciousness is likely to be stronger with introverted searches than with extroverted searches, while the association of public self-consciousness may be stronger with extroverted searches than with introverted searches.

Thus, this study suggests the following hypotheses:

*H1* The positive association of private self-consciousness is stronger with introverted searches than with extroverted searches

*H2* The positive association of public self-consciousness is stronger with extroverted searches than with introverted searches

### **Information search and decision-making**

Each individual is the main actor in his or her own life; everyone is free to make choices without external influences or interference (Wehmeyer 1992). According to

self-determination theory, each person is motivated to make decisions based on both intrinsic and extrinsic factors, depending on his or her behavioral control type. Deci and Ryan (2002) examine intrinsic and extrinsic motivations through the lens of self-determination and find that the degree of self-control may vary depending on the individual. Self-determination theory generally proposes a continuum between intrinsic and extrinsic motivation. Intrinsic motivation refers to people's internal interest in a rewarding activity and incorporates three basic needs: autonomy, relatedness, and competence (Paixao and Gamboa 2017). Extrinsic motivation, meanwhile, examines the external influences on someone's performance of a task and includes different levels of regulation (Paixao and Gamboa 2017).

Individuals with higher intrinsic motivation control themselves well and are confident in their decision-making, which can be referred to as self-determination. Self-determination can also be understood as taking responsibility for oneself with minimal outside influence (Bambara et al. 1998). On the other hand, individuals with higher extrinsic motivation are more sensitive to external influences, leading to non-self-determination. These individuals will accept others' opinions and are sensitive to feedback. In other words, the more internally motivated an individual, the more self-determined, and the more externally motivated, the less self-determined (Kim and Oh 2001; Deci and Ryan 2000).

As mentioned above, self-determination theory describes autonomy as essential to self-determination. Autonomy is the self-regulation of one's experiences and actions, and it is related to a sense of voluntariness (Ryan and Deci 2017). An introverted information search is a voluntary search, and consumers play an important role in governing and directing the process. Internal and Internet searches are self-regulatory and autonomous (Kye and Kim 2005; Lee 1998). Since autonomy is essential to self-determination, consumers' introverted searches result in self-determination (Duchesne et al. 2012; Guay 2005; Paixao and Gamboa 2017).

On the other hand, during extroverted searches, consumers seek information from diverse outside sources such as offline stores or salespeople. During this type of search, consumers are usually dependent on external sources, and their self-regulation is relatively low. Such information searches have low perceived risk and high involvement, as they rely on outside sources for information (Lee and Pahng 2004; Rohm and Swaminathan 2004). Since individuals with higher extrinsic motivation are more sensitive to external influences, leading to non-self-determination (Ryan and Deci 2017), it is likely that extroverted searches have a positive effect on non-self-determination.

In addition, there may be possible relationships between introverted information search and non-self-determination and extroverted information search and self-determination. Some studies have found an ambiguous relationship between autonomy and self-determination (Vansteenkiste et al. 2004; Welters et al. 2014). Others have found that extrinsic motivation can have a positive influence on self-determination when consumers perceive the benefits of externally regulated forces (Ryan and Deci 2017). Intrinsic motivation is not the only key for self-determination; individuals can be self-determined under external influences, such as others' opinions (Kim 2012).

Consumers begin an information search to satisfy their need to make a decision and purchase a product (Schiffman and Wisenblit 2018). Fashion products carry high social



and psychological risk; consumers search to reduce this risk. In addition, decision-making is affected by an individual's type of information search, as mentioned above. We propose that there may be positive associations between information search types and decision-making. However, the relative importance of introverted and extroverted information searches may differ. Specifically, there may be a stronger association of introverted searches with self-determination than with non-self-determination, while the association of extroverted searches may be stronger with non-self-determination than with self-determination. Therefore, this study suggests the following hypotheses:

*H3* The positive association of introverted searches is stronger with self-determination than with non-self-determination

*H4* The positive association of extroverted searches is stronger with non-self-determination than with self-determination

#### **Decision-making and post-purchase satisfaction**

Consumers want satisfaction based on their evaluation of whether they have made the right decisions regarding their purchases (Kim 2003b). Post-purchase satisfaction is based on a consumer's general subjective judgment regarding the quality of their decision-making (Park 1991). The study of consumer satisfaction has developed rapidly since the 1960s, with various scholars defining the term differently (Kim 2003b). Hunt (1977), for example, describes *satisfaction* as a personal and subjective assessment of the various outcomes and experiences associated with a product's use or consumption, while Westbrook (1980) extends the definition to include both emotional and cognitive evaluations. The result is a consumer's expression of satisfaction or dissatisfaction according to their consumption experience and perceived outcome, which is affected by an individual's expectations and decision-making. In the case of clothing, consumers' satisfaction is especially complex (Choi et al. 2002) because purchases involve both physical and aesthetic aspects and are greatly affected by psychological and social factors.

Self-determination theory suggests that acting with autonomy leads to self-determination and that self-endorsed behaviors contribute to satisfaction in decision-making (Ryan and Deci 2017). Self-determination is more likely to lead to a successful outcome and psychological well-being (Deci and Ryan 2000; Welters et al. 2014), and self-determined individuals are confident with their decisions, leading to increased post-purchase satisfaction (Kim 2003b). In other words, if single adults are self-determined in their decision-making, this should lead to satisfaction with the decision-making process.

Non-self-determination is related to extrinsic motivation and refers to decision-making behavior based on others' opinions and external influences (Kim 2012; Deci and Ryan 2000). If individuals are non-self-determined, they are sensitive to others and to external influences and are less confident about their decisions (Deci and Ryan 2000, Kim 2012; Ryan and Deci 2017). Non-self-determined individuals may gain post-purchase satisfaction because conforming to others provides them with an emotional buffer and reduces negative feelings (Yu and Sun 2013). Since they can avoid the responsibility of making a choice by allowing others to make decisions on their behalf, they may feel

comfortable and relieved, which suggests that decision-making under others' influence (Welters et al. 2014) and interpersonal relatedness (Ryan and Deci 2017) can also contribute to psychological well-being.

This study proposes that there may be positive associations of self-determination and non-self-determination with satisfaction. However, the association of satisfaction with self-determination is likely to be stronger than that with non-self-determination. Thus, this study includes the following hypothesis:

*H5* The positive association of satisfaction with self-determination is stronger than that with non-self-determination

## Methods

### Sample and data collection

The subjects of this study were men and women aged 20–49 who were not legally married and were living alone. We used purposive sampling and collected data using an online survey distributed by a third-party company. The company sent random emails to 8943 people in the correct demographic group. A total of 745 responses were received. Of these, 28 were incomplete and were, therefore, discarded, leaving a total of 717 valid responses.

### Measures and questionnaires

The questionnaire included two sections. The first contained questions measuring respondents' self-consciousness, information search tendencies, decision-making, and post-purchase satisfaction. All constructs were measured using a 5-point Likert scale with answers ranging from "1 = strongly disagree" to "5 = strongly agree". Questions on self-consciousness included 10 items measuring both private and public self-consciousness; items were modified from Moon (2004) and Chun (2004). Information search tendencies were measured using nine items adopted from Ha (1999), Jung (2008), Lim (1998), and Nam (2014). Decision-making was measured using eight items adopted from Kim et al. (2006) and Min (2008).

The second section of the questionnaire contained demographic information, including gender, age, and education.

### Data analysis

The collected data were analyzed using SPSS 18.0 and AMOS 18.0. Using SPSS 18.0, frequency analysis, exploratory factor analysis, and analysis of technical statistics were conducted. Using AMOS 18.0, confirmation factor analysis, validity and suitability of measurement model analysis, and structural equation model analysis were conducted.

## Results

### Respondent characteristics

Table 1 provides an overview of respondents' demographic characteristics. Of the 717 respondents, 49.8% were male and 50.2% were female. Forty-two percent were between the ages of 20–29, 42.3% were between 30 and 39, and 15.7% were between 40 and 49.

**Table 1** Demographic characteristics (n = 717)

Consumer profile	Frequency	Percentage
Gender		
Men	357	49.8
Women	360	50.2
Age		
20–29	301	42.0
30–39	303	42.3
40–49	113	15.7
Marriage experience		
Yes	28	3.9
No	689	96.1
Job		
Office worker	398	55.5
Sales and service	77	10.7
Professional	104	14.5
Student	113	15.8
Others	25	3.5
Highest education		
High school graduate	72	10.0
Some college	179	24.9
College graduate	395	55.1
Master/MBA/Ph.D.	71	10.0
Annual household income		
Less than US \$9999	43	6.0
US \$10,000–US \$19,999	150	20.9
US \$20,000–US \$29,999	188	26.2
US \$30,000–US \$39,999	152	21.2
US \$40,000–US \$49,999	88	12.3
More than US \$50,000	96	13.4

In addition, 96.1% had never been married before, while 3.9% had previously been married. In terms of education, 55.1% were college graduates, 10.0% had a Master's or MBA degree, and 24.9% had some college education.

#### Estimation and validation

The results of verified confirmatory factor analysis for the entire measurement model showed an acceptable model fit ( $\chi^2_{df=303} = 973.27$ ,  $p = 0.00$ , Normed  $\chi^2 = 3.21$ , RMR = 0.04, RMSEA = 0.06, GFI = 0.90, AGFI = 0.88, IFI = 0.90, TLI = 0.88, CFI = 0.90).

To verify the centrality of the results, we first looked at the factor loading and significance: the standardized factor loading of all observed variables was 0.53–0.78, and the t-value was more than 10.81, satisfying the standard value. All CFA loadings were higher than 0.5, demonstrating convergent validity (Kline 2010; Woo 2012). The average variance extract (AVE) of each construct was greater than 0.5 (Woo 2012), except for extroverted information search and non-self-determination. The conceptual reliability of each construct was greater than 0.7. If the AVE is less than 0.5 but the composite reliability is higher than 0.6, the convergent validity of the construct is considered adequate (Fornell and Larcker 1981; Woo 2012). The discriminant validity was also verified, as all AVEs

**Table 2 Measurement model results**

Measures	CFA loading	Cronbach's $\alpha$	AVE
Private self-consciousness		0.84	0.57
I tend to think about myself a lot	0.70		
I always try to understand myself	0.68		
I am generally familiar with myself	0.63		
I generally pay attention to my inner feelings	0.67		
Public self-consciousness		0.85	0.59
I care what other people think of me	0.67		
I am concerned about the way I represent myself	0.72		
I try to make a good impression on others	0.74		
I generally care about my own appearance	0.72		
Extroverted information search		0.76	0.48
I go to the stores (department stores, fashion stores, outlets, duty free shops, etc.) to get fashion information	0.58		
I get information by looking in the streets or at people around me	0.67		
I get information through the salesperson	0.72		
I get information from fashion flyers	0.64		
Introverted information search		0.76	0.52
When I search for fashion information, I tend to think about the types of information that I have searched before	0.62		
I intend to use my favorite information again	0.68		
I get information through the Internet	0.53		
Self-determination		0.81	0.51
When I buy fashion products, I usually decide on my own	0.60		
When I buy fashion products, I make my own decisions even though others disagree with me	0.71		
I tend to buy products that I like	0.66		
When I buy fashion products, I don't care what other people think or notice	0.62		
Non-self-determination		0.72	0.46
I buy fashion products by reflecting the advice of someone with good fashion sense	0.59		
I buy according to the majority opinion, even though I don't like it	0.71		
I buy fashion products to get good responses from others	0.64		
Post-purchase satisfaction		0.91	0.67
I am generally satisfied with the fashion products I have purchased	0.78		
I think it's a good thing I bought fashion items	0.71		
I don't regret buying a fashion item	0.68		
I am satisfied with the fact that I had a good choice when purchasing the fashion products	0.71		
The fashion products I bought met my expectations	0.75		

were higher than the squared correlations between the constructs (Woo 2012). Tables 2 and 3 show the discriminant and convergent validities.

### Hypotheses test

Next, we used structural equation modeling to test the hypotheses. The results showed an acceptable model fit ( $\chi^2_{df=313} = 1120.19$ ,  $p = 0.00$ , Normed  $\chi^2 = 3.58$ , GFI = 0.89, AGFI = 0.87, IFI = 0.88, TLI = 0.86, CFI = 0.88, RMR = 0.05, RMSEA = 0.06) (Kline 2010). The individual paths of the model are shown in Table 4 and Fig. 1.

**Table 3 Discriminant and convergent validity of constructs**

	1	2	3	4	5	6	7
1. Private self-consciousness							
2. Public self-consciousness	0.34						
3. Extroverted search	0.15	0.13					
4. Introverted search	0.45	0.37	0.10				
5. Self-determination	0.27	0.06	0.06	0.36			
6. Non-self-determination	0.05	0.28	0.47	0.10	0.00		
7. Post-purchase satisfaction	0.36	0.17	0.11	0.34	0.40	0.07	
AVE	0.57	0.59	0.48	0.52	0.51	0.46	0.67

The numbers below the diagonal are the squared correlation coefficients between the variables

**Table 4 Path analysis results**

Path	Standard coefficient	Standard error (S.E)	t-value (C.R)
Private self-consciousness			
Introverted information search	0.58	0.06	7.75***
Extroverted information search	0.20	0.09	3.12**
Public self-consciousness			
Introverted information search	0.25	0.04	4.19***
Extroverted information search	0.29	0.07	4.47***
Introverted information search			
Self-determination	0.66	0.10	8.55***
Non-self-determination	0.10	0.08	1.93
Extroverted information search			
Self-determination	0.03	0.04	0.69
Non-self-determination	0.58	0.06	8.98***
Self-determination			
Post-purchase satisfaction	0.66	0.06	11.24***
Non-self-determination			
Post-purchase satisfaction	0.22	0.04	5.25***

\*\*\* $p < 0.001$ , \*\* $p < 0.01$

Positive relationships were found for private self-consciousness with both introverted information searches ( $\beta = 0.58$ ,  $p < 0.001$ ) and extroverted information searches ( $\beta = 0.20$ ,  $p < 0.01$ ). The relationship between private self-consciousness and introverted information searches was stronger than that between private self-consciousness and extroverted information searches ( $0.58 > 0.20$ ), supporting H1. In addition, positive relationships of public self-consciousness were also shown with both introverted information searches ( $\beta = 0.25$ ,  $p < 0.001$ ) and extroverted information searches ( $\beta = 0.29$ ,  $p < 0.001$ ). The relationship between public self-consciousness and extroverted information searches was stronger than that between public self-consciousness and introverted information searches, although the difference of the standard coefficient values was marginal. Thus, H2 was supported.

When it comes to the relationships between information searches and decision-making, introverted information searches had a positive relationship with self-determination ( $\beta = 0.66$ ,  $p < 0.001$ ), and extroverted information searches had a positive relationship with non-self-determination ( $\beta = 0.58$ ,  $p < 0.001$ ). The relationship between introverted

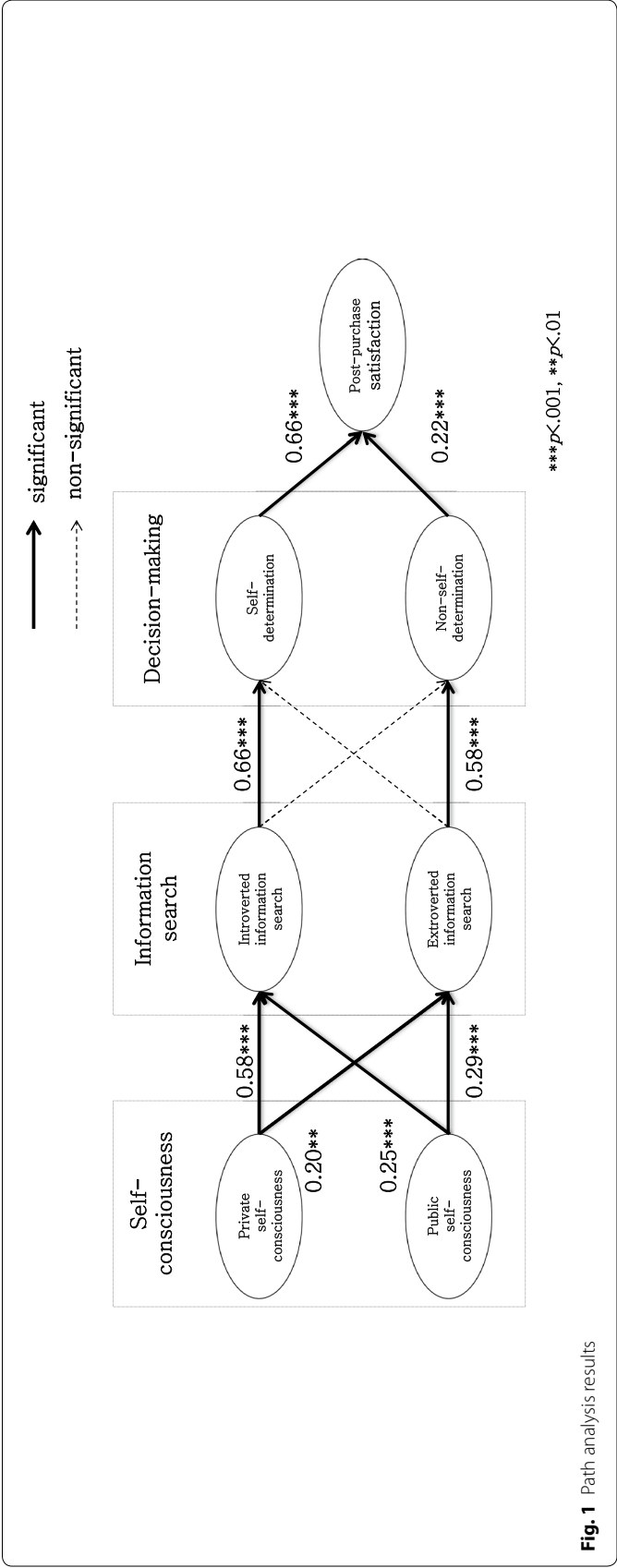


Fig. 1 Path analysis results



information searches and non-self-determination was not significant, and there was no significant relationship between extroverted information searches and self-determination. Since the results showed that the relationship between introverted searches and self-determination was stronger than that between introverted searches and non-self-determination, H3 was supported. In addition, the relationship was stronger between extroverted searches and non-self-determination than between extroverted searches and self-determination; H4 was thus supported.

Finally, positive relationships were reported between post-purchase satisfaction and both self-determination ( $\beta=0.66$ ,  $p<0.001$ ) and non-self-determination ( $\beta=0.22$ ,  $p<0.001$ ). There was a stronger relationship between satisfaction and self-determination than between satisfaction and non-self-determination. Thus, H5 was supported.

## Discussion

This study investigates the decision-making of single Korean adults with regard to fashion consumer behavior. The rise of “Generation Maybe” (Oliver 2014) makes exploring single people’s decision-making and the factors affecting this process vital. To this end, this study investigates the relationships between self-consciousness, information search tendencies, decision-making, and post-purchase satisfaction for fashion purchases in single-person households.

Since clothing and fashion choices are closely related to consumers’ sense of self (Chun 2004), information search in fashion is highly influenced by various personal dimensions, especially private and public self-consciousness. Since fashion items carry social and psychological risk (Kim 2002), consumers with high private or public self-consciousness rely on diverse fashion sources. However, few studies have focused on the relationship between self-consciousness and fashion information search. This study attempts to fill that gap by using Schiffman and Wisenblit’s (2018) consumer decision-making model, which addresses the influence of psychological factors on the decision-making process.

The results show that the positive relationship between private self-consciousness and introverted information searches is stronger than that between private self-consciousness and extroverted information searches. Individuals with high private self-consciousness have a consistent attitude and behavior in social situations and accurate knowledge of themselves. Therefore, they are more confident in their own evaluations and less likely to rely on outside information (Claeys 1984; Scheier 1980; Turner et al. 1981). Individuals with high private consciousness pursue introverted information searches by focusing on their internal memories and experiences, as well as Internet searches, preferring self-regulation and self-direction (Chung 2003; Ho et al. 2016; Kye and Kim 2005). Individuals with high private self-consciousness need self-control and self-confidence, and they adopt fashion products early and pursue their own individuality (Cho and Myung 2001; Chun 2004). To attract these consumers, online marketers should provide information that is as detailed as possible so that consumers can control and self-regulate the information they receive. It is also important to provide these consumers with accurate information they can trust. To this end, online marketers must provide professional, trustworthy, and updated information about fashion that consumers can self-direct, accumulate, and store as inner

knowledge. Since this group values individuality and uniqueness (Cho and Myung 2001; Chun 2004), they may be attracted by more unique and creative fashion items. Additionally, since these consumers tend to rely on their own stored memories and the Internet (Chung 2003; Ho et al. 2016), search tools that allow them to see their private search history, for example, may help them recall their own behavior and make confident choices. In addition, developing easier and more independent search methods will help encourage these consumers. For example, search engine optimization can maximize the likelihood of companies appearing in searchers, a useful tool for driving consumers' self-regulated searching (Solomon 2018). To target consumers with high levels of private self-consciousness, marketers should respect their thoughts and opinions and provide useful and diverse information so that the consumers can control and regulate their decisions. Persuasion or coercion will not work for this type of consumer.

The results also show that public self-consciousness has a marginally stronger positive relationship with extroverted information searches than with introverted searches. Individuals with high public self-consciousness are sensitive to extroverted influences, that is, others' opinions (Jung 2012; Lee 2008). For these consumers, traditional fashion retailers and marketing strategies are important ways to solicit others' opinions. Offline stores advertising trendy fashion products may appeal to this group, as will knowledgeable salespeople. DMs and flyers are other good sources of extroverted information. In addition, online sources may serve as introverted information searches that allow these consumers to solicit others' opinions and reactions. To this end, influencer marketing using social networking services and others' reviews may be effective marketing strategies. To target consumers with high public self-consciousness, marketers need to provide advice or support, such as through interpersonal communications.

Introverted information searches also had a positive relationship with self-determination, while extroverted information searches were significantly related only to non-self-determination. This finding suggests that different types of information effect decision-making behavior in different ways. However, there have been almost no studies dealing with consumer information search and self-determination in decision-making. According to self-determination theory, individuals with higher intrinsic motivation control themselves well and are confident in their decisions. As individuals increase their introverted searching, higher intrinsic motivation can lead to self-determination (Cooke et al. 2016; Lee and Chung 2015; Lee et al. 2018; Ryan and Deci 2017). Introverted information search is voluntary, and consumers govern and direct the process. Because it is self-regulatory and autonomous in nature, consumers' use of diverse information accumulates knowledge, increases self-confidence and competence, and eventually increases purchase performance (Kye and Kim 2005; Lee 1998).

Our findings support those of previous studies showing that autonomy has a positive impact on self-determination (Duchesne et al. 2012; Guay 2005; Paixao and Gamboa 2017). People who use introverted information searches are autonomously looking for information based on their experience; they are confident regarding the product they want to purchase and make decisions quickly and easily. Online retailers must provide accurate information to make this decision-making easier. On the other hand, higher extrinsic motivation leads to non-self-determination; these consumers are more

sensitive to external influences. Individuals who are heavily engaged in external information search may have lower self-control and become more dependent on outside information (Kim 2009; Rohm and Swaminathan 2004). Since individuals with higher extrinsic motivation are more sensitive to external influences, leading to non-self-determination (Ryan and Deci 2017), various aspects of traditional retailers, especially trained salespeople, can provide diverse input into decision-making.

Other studies find that the effects of intrinsic and extrinsic motivations on self-determination are ambiguous (Kim 2012; Ryan and Deci 2017; Vansteenkiste et al. 2004; Welters et al. 2014). On the basis of these findings, this study proposed possible relationships between introverted searches and non-self-determination and between extroverted searches and self-determination. However, the results showed no significant relationships between either. This finding supports the influence of autonomy on self-determination (Deci and Ryan 2000; Ryan and Deci 2017).

Finally, the positive relationship between satisfaction and self-determination is stronger than that between satisfaction and non-self-determination. In other words, self-determination in decision-making is a very important factor in consumers' post-purchase satisfaction. There has been a recent increase in the number of individuals who value their own feelings, which may increase the importance of self-determination. In addition, single people in particular have a clear sense of their own personal opinions. Marketers must provide strategies to enable consumers' decision-making. Providing customized and unbiased online information may be one possible tool. Additionally, offline stores should provide diverse experiences to enable consumers' decision-making. Despite the stronger relationship between self-determination and satisfaction, there also exists a positive relationship between non-self-determination and satisfaction. Turner (1991) argues that individuals are influenced by their own societies, groups, and others because they are social beings. Koreans traditionally value others' evaluation, and they are concerned about how they are seen by others (Cho and Myung 2001; Chun 2004). The findings of this study demonstrate that this interdependence is reflected in the decision-making of single Korean consumers.

## Conclusion and limitations

This study identifies the important factors affecting the decision-making processes of single Korean adults and determines that self-consciousness and information search have significant impacts on fashion consumerism. In addition, decision-making can affect post-purchase satisfaction. Our findings are vital to Korean fashion marketers, since there have been very few studies on single consumers' decision-making processes, especially within fashion.

Despite the study's important findings, this research remains in the exploratory stage, and future research is necessary to expand and strengthen our findings. This study's measurements are based on those of previous studies; yet relatively few focus on self-determination in the decision-making process. This limitation must be addressed in future studies, and alternative measuring methods should be found. Future studies should also address information search: with the increasing power of the Internet as an information tool (Solomon 2018), the boundaries between types of information search

have become unclear (Choi and Rha 2012; Rha 2010). While this study differentiates fashion information search into introverted and extroverted types, few recent studies have offered a formalized understanding of the dimensions of information search. Since this study relies on several other studies to get data on information search items that are as diverse as possible, it may have less convergent validity. Finally, respondents in this study were all between their 20 s and 40 s. Older consumers aged 50 and over may have a different decision-making style. Furthermore, greater segmentation of single consumers is needed: all single adults may not act alike. Future research should consider more diverse consumer groups.

#### Authors' contributions

JL participated in ideation, survey development, and data collection and carried out data analyses, interpretation, and drafting of the manuscript as the lead author. JH participated in ideation, survey development, interpretation, drafting the manuscript, and manuscript revision and managed the submission process as the corresponding author. Both authors read and approved the final manuscript.

#### Funding

Not applicable.

#### Availability of data and materials

Please contact author for data requests.

#### Ethics approval and consent to participate

Not applicable.

#### Competing interests

The authors declare that they have no competing interests.

#### Author details

<sup>1</sup> Instructor, Department of Apparel Design, College of Art & Design, Konkuk University, 1 Hwayang-dong, Kwangjin-gu, Seoul 05029, South Korea. <sup>2</sup> Professor, Department of Apparel Design, College of Art & Design, Konkuk University, 1 Hwayang-dong, Kwangjin-gu, Seoul 05029, South Korea.

Received: 16 November 2018 Accepted: 25 May 2019

Published online: 01 December 2019

#### References

- Bae, H. S. (2008). *The effect of food service consumers' lifestyle types on purchase decision making process*. Unpublished master's thesis, Kyong-gi University, Seoul.
- Bambara, L. M., Cole, C. L., & Koger, F. (1998). Translating self-determination concepts into support for adults with severe disabilities. *Research and Practice for Persons with Severe Handicaps*, 23(1), 27–37.
- Berlyne, D. E. (1957). Uncertainty and conflict: A point of contact between information-theory and behavior-theory concepts. *Psychological Review*, 64, 329–339.
- Buss, A. H. (1980). *Self-consciousness and social anxiety*. San Francisco: Freeman.
- Byun, S. I. (2015). *Increased single-person households, popular for 'single family' rental houses*. Retrieved June 24, 2015, from <http://www.sisaon.co.kr/news/articleView.html?idxno=32752>.
- Cho, A. R., & Kim, Y. M. (2000). Self-consciousness and psychological distress. *Korean Journal of Clinical Psychology*, 19(2), 319–330.
- Cho, G. H., & Myung, J. W. (2001). Cultural dispositions and types of self-consciousness. *The Korean Journal of Social and Personality Psychology*, 15(2), 111–139.
- Cho, H. I., & Son, S. G. (2010). A Study on the effect of self-consciousness, anxiety on defense mechanisms. *Journal of Future Oriented Youth Society*, 7(1), 19–42.
- Choi, A. Y., & Rha, J. Y. (2012). How do consumers search for information in multi-channel environment?: Consumer typology based on their choice of information channel. *Journal of Consumer Studies*, 23(2), 135–164.
- Choi, H. W. (2016). *Last year, the economy grew just 2.6%...whose exports have fallen sharply*. Retrieved January 26, 2016, from <http://news.kbs.co.kr/news/view.do?ncd=3221840&ref=A>.
- Choi, S. G. (2011). *A study of singles' dining-out behavior and food consumption behavior by the lifestyle*. Unpublished master's thesis, Sang-myung University, Seoul.
- Choi, S. H., & Rhee, E. Y. (1987). A study on the fashion leadership—The relationships among fashion leadership, social character, clothing conformity and fashion information source. *Journal of the Korean Society of Clothing and Textiles*, 11(3), 3015–3024.
- Choi, T. Y., Park, H. S., & Cho, E. Y. (2002). Purchasing satisfaction of apparels on shopping orientation in Daegu. *Family and Environment Research*, 40(8), 123–135.

- Chon, E. (2016). The effects of learner characteristics on collaboration satisfaction in collaborative learning utilizing social network sites. *Journal of Learner-Centered Curriculum and Instruction*, 16(2), 571–596.
- Chun, M. S. (2004). *The effect of cultural tendency and self-consciousness on clothing consumption behavior*. Unpublished master's thesis, Yonsei University, Seoul.
- Chung, S. (2003). The sociocultural characteristics and implications of N generation. *Studies in Humanities*, 11, 389–413.
- Claeys, W. (1984). Self-focused attention and the development of self-and other-schemata: Implications for the self in depression. *Advances in Psychology*, 21, 31–48.
- Cooke, A. N., Fielding, K. S., & Louisa, W. R. (2016). Environmentally active people: The role of autonomy, relatedness, competence and self-determined motivation. *Environmental Education Research*, 22(5), 631–657.
- Copland, A. (1923). Composer from Brooklyn: An autobiographical sketch. Reprinted in *Aaron Copland: A Reader*, 1923–1972.
- Deci, E. L., & Ryan, R. M. (2000). What and why of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11(4), 227–268.
- Deci, E. L., & Ryan, R. M. (2002). Overview of self-determination theory: An organismic dialectical perspective. In *Handbook of Self-determination Research* (pp. 3–33).
- Dolan, R. J., & Moon, Y. (2000). Pricing and market making on the internet. *Journal of Interactive Marketing*, 14(2), 56–73.
- Duchesne, S., Mercier, A., & Ratelle, C. F. (2012). Vocational exploration in middle school: Motivational characteristics of students and perceptions of the learning climate. *Canadian Journal of Counselling and Psychotherapy*, 46, 367–386.
- Duval, S., Wicklund, R. A., & Fine, R. L. (1972). Avoidance of objective self-awareness under conditions of high and low intra-self-discrepancy. In *A theory of objective self-awareness* (pp. 15–22).
- Elliott, G. C. (1984). Dimensions of the self-concept: A source of further distinctions in the nature of self-consciousness. *Journal of Youth and Adolescence*, 13(4), 285–307.
- Engel, J. F., Blackwell, R. D., & Kollat, D. T. (1982). *Consumer behavior*. NY: The Dryden Press.
- Fenigstein, A., Scheier, M. F., & Buss, A. H. (1975). Public and private self-consciousness: Assessment and theory. *Journal of Consulting and Clinical Psychology*, 43(4), 522–527.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50.
- Guay, F. (2005). Motivations underlying career decision-making activities: The career decision-making autonomy scale (CDMAS). *Journal of Career Assessment*, 13, 77–97. <https://doi.org/10.1177/1069072704270297>.
- Ha, J. K. (1999). The influences on store choice behaviors by clothing shopping orientations and information search activities. *Korean Association of Human Ecology*, 8(3), 499–509.
- Han, S. Y. (2012). *A study on single-person household's future plan*. Unpublished master's thesis, Ewha Womans University, Seoul.
- Ho, C., Lin, Y., Yuan, Y., & Chen, M. (2016). Pre-trip tourism information search by smartphones and use of alternative information channels: A conceptual model. *Cogent Social Sciences*, 2, 1136100.
- Hoffman, D. L., & Novak, T. P. (1996). Marketing in hypermedia computer-mediated environments: Conceptual foundations. *Journal of Marketing*, 60(3), 50–68.
- Hunt, H. K. (1977). CS/D-overview and future research direction, conceptualization and measurement of consumer satisfaction and dissatisfaction. In *MSI/NSF Conference* (pp. 445–488).
- Jang, J. B. (2018). *One in three households in 2045... I get old living alone*. Retrieved May 18, 2018, from [http://www.seoul.co.kr/news/newsView.php?id=20180519009002&wlog\\_tag3=naver](http://www.seoul.co.kr/news/newsView.php?id=20180519009002&wlog_tag3=naver).
- Jung, M. J. (2001). *Influence of self-consciousness, self-concept, irrational belief on college students' Social Anxiety*. Unpublished master's thesis, Keimyung University, Daegu.
- Jung, S. J. (2008). *A structural model of psychological attributes affecting information search: Focusing on the relationship among proximity of clothing to self, hedonic shopping orientation and clothing conspicuous consumption of 20s college women*. Unpublished master's thesis, The Graduate School of Ewha Womans University, Seoul.
- Jung, S. A. (2012). Social anxiety and self-consciousness, It's diagnostic and therapeutic implications. *Korea Journal of Counseling*, 13(1), 47–69.
- Kang, I. H. (2013). *The relationship between single's lifestyle and leisure attitude & recognition of dance*. Unpublished master's thesis, Sejong University, Seoul.
- Kang, J. H. (2010). *The effect of self-presentation motivation and self-presentation expectancy in social anxiety: Test of mediating effect of self-consciousness*. Unpublished master's thesis, Sungshin Women's University, Seoul.
- Kim, A. Y., & Oh, S. A. (2001). Classification of motivation on the continuum of self-determination. *Journal of Educational Psychology*, 15(4), 97–119.
- Kim, B. K. (2003a). *Independent-interdependent self-construal and social anxiety: Mediatonal effects of public self-consciousness*. Unpublished master's thesis, Yonsei University, Seoul.
- Kim, D., Lee, Y., & Lee, S. (2001). *New consumer behavior*. Parkyoungsa: Seoul.
- Kim, H. C. (1999). *Effect of psychological characteristics and peer acceptance on female adolescents' clothing behavior*. Unpublished master's thesis, Yonsei University, Seoul.
- Kim, H. Y. (2007). *Social change and challenges of female subjects—Structural change of information society and family*. Seoul: Good Information.
- Kim, I. O. (2003b). *Usefulness of internet searching and satisfaction of consumer about Internet shopping*. Unpublished master's thesis, Sook-myung Women's University, Seoul.
- Kim, J. C. (2012). *A study on how customer self-determination tendency variables as intrinsic motivation influences on perception for product benefits, user satisfaction, purchase intention and referral intention*. Unpublished master's thesis, Kyunghee University, Seoul.
- Kim, K. O., Yoo, H. J., & Nam, S. J. (2006). Development of a purchase motivation scale based on self-determination theory. *Korean Home Management Association*, 24(1), 71–82.
- Kim, N. Y. (2016). *Captivate a dol-sing drama with real-life sympathy*. Retrieved February 2, 2016, from [http://stoo.asiae.co.kr/news/naver\\_view.htm?idxn=2016021511455546777](http://stoo.asiae.co.kr/news/naver_view.htm?idxn=2016021511455546777).
- Kim, N. D., Jeon, M. Y., Lee, H. E., Lee, J. Y., Kim, S. Y., & Choi, J. H. (2015a). *Trend Korea 2015*. Seoul: The future window.

- Kim, S. H. (2002). In the point of acquiring information about practical product and pleasant product = Research of customers' information search when they purchase clothes product. *Design Institute*, 1(1), 123–134.
- Kim, S. H. (2009). The differences in clothing shopping orientation and shopping behaviors by the multi-store selection of internet and offline stores. *Journal of the Korean Society of Clothing and Textiles*, 33(5), 764–774.
- Kim, S. J. (2015a). *Competition for 'Home Furnishing' in the first family... Market expenses, DIY iron deposit market exploitation*. Retrieved October 14, 2015, from [http://news.genews.com/view.php?ud=201510140924451720956\\_1&md=20151014093346\\_1](http://news.genews.com/view.php?ud=201510140924451720956_1&md=20151014093346_1).
- Kim, Y. S. (2015b). *Lifestyle 2016 their secret taste*. Seoul: Buki.
- Kim, Y. A., Lee, B. C., & Youn, H. W. (2015b). A study on single people's satisfaction of convenience foods and repurchase intention according to food-related lifestyle. *The Tourism Sciences Society of Korea*, 27(1), 433–452.
- Kline, R. B. (2010). *Principles and practice of structural equation modeling* (3rd ed.). New York: The Guilford Press.
- K. M. R. I. (2011). Characteristics of consumption of single people. *Korea Sociological Association*, 45(12), 80–84.
- Kwon, J. H. (2015). *The effect of leisure flow experience to psychological well-being of single-person household*. Unpublished master's thesis, Ewha Womans University, Seoul.
- Kye, S., & Kim, I. (2005). Usefulness of the 20's and 30's internet searching and consumer satisfaction for internet shopping. *Korea Family Resource Management Association*, 9(2), 111–126.
- Lee, B., & Chung, J. (2015). Development of the Korean of version sport motivation scale (SMS-K) based on self-determination theory. *Korean Journal of Sport Psychology*, 26(3), 29–40.
- Lee, C. S., & Pahng, S. B. (2004). The effects of shopping value on online purchasing intention: Focus on product attribute importance as intervening variable. *Korea Marketing Review*, 19(2), 41–69.
- Lee, D. W. (1998). *Consumer adoption and satisfaction with E-commerce*. Unpublished master's thesis, Seoul National University, Seoul.
- Lee, G. P. (2016). *Security industry, get 5 million singles*. Retrieved January 8, 2016, from <http://www.asiatoday.co.kr/view.php?key=20160107010003896>.
- Lee, H. Y., Noh, S. C., & Choi, E. Y. (2011). Growth pattern and spatial distribution of one-person households. *Journal of the Korean Geographical Society*, 46(4), 480–500.
- Lee, I. S., & Kang, S. J. (2009). A study on the housing planning according to the lifestyle of one-person households. *The Korean Housing Association*, 2, 180–185.
- Lee, J. S., Jung, S. H., & Shin, M. K. (2012). A study on multichannel consumer's choice of the information search and shopping channel. *Journal of Consumption Culture*, 15(9), 21–45.
- Lee, S. Y. (2004). *A comparison of advertising effects between single consumer and non-single consumer*. Unpublished master's thesis, Chung-ang University, Seoul.
- Lee, S. E. (2008). Differences in college students' separation-individuation, according to private self-consciousness and public self-consciousness. *The Korean Journal of Counseling and Psychotherapy*, 20(4), 1087–1106.
- Lee, S. H. (2013). *I'm good to myself*. Seoul: Signalbooks.
- Lee, S., & Kwak, K. (2017). The effect of involvement on sociability: The differences on extroverted and introverted characteristics. In *The Korea Society of Management Information Systems Proceedings* (pp. 81–88).
- Lee, S., Lee, H., & Kwak, E. (2018). The effects of autonomy, competence, and relatedness on self-Determination. *Asia-Pacific Journal of Multimedia Services Convergent with Art, Humanities, and Sociology*, 8(11), 601–612.
- Lee, Y. S. (2005). *Single marketing*. Seoul: Business Books.
- Lee, Y. J., & Kim, S. M. (2004). The economic status and an analysis of the expenditure of the single elderly household of men and women. *Family and Environment Research*, 42(12), 93–106.
- Lim, H. H. (2014). *A study on bakery consumption value as life style of single households-mainly with 20s and 30s*. Unpublished master's thesis, Kyonggi University, Seoul.
- Lim, H., & Dubinsky, A. J. (2004). Consumers' perceptions of e-shopping characteristics: An expectancy-value approach. *Journal of Services Marketing*, 18(7), 500–513.
- Lim, J. W., Kim, J. I., Hong, S. T., & Lee, Y. J. (2006). *Consumer behavior: Understanding and marketing strategic use*. Seoul: Kyungmoon Publishers.
- Lim, K. B. (1998). A study on the information search behavior-emphasis on the self-image and benefit. *Journal of the Korean Society of Clothing and Textiles*, 22(1), 61–71.
- Lyubomirsky, S., & Nolen-Hoeksema, S. (1995). Effects of self-focused rumination on negative thinking and interpersonal problem solving. *Journal of Personality and Social Psychology*, 69(1), 176.
- Min, S. K. (2008). *A study on obstruction factor where affects in buying decision-making of the internet consumers*. Unpublished doctoral dissertation, Cheong-ju University, Cheong-ju.
- Moon, H. J. (2004). *The study on the levels of interpersonal relationship problem according to adult attachment and self-consciousness style*. Unpublished master's thesis, Sook-myung Women's University, Seoul.
- Nam, E. G. (2014). *Consumer information search and consumer confusion under multi-channel environment*. Unpublished doctoral dissertation, The Catholic University of Korea, Seoul.
- Oliver, J. (2014). *Generation Maybe: People lost in the flood of opportunity*. Kang, H. J. Translated. Seoul: The future window.
- Paixao, O., & Gamboa, V. (2017). Motivational profiles and career decision making of high school students. *The Career Development Quarterly*, 65, 207–221.
- Park, J. N. (2011). *'Leisure-Alone Folk': Pleasure of pursuing individuality or change of community*. Unpublished master's thesis, Ehwa Women's University, Seoul.
- Park, M. S. (1991). *A study on consumer efficiency*. Unpublished doctoral dissertation, Dong-kuk University, Seoul.
- Park, M. S. (2018). *A study on the countermeasures of housing policy by the number of households*. National Land Institute (pp. 665).
- Polegato, R., & Wall, M. (1980). Information seeking by fashion opinion leaders and followers. *Home Economics Research Journal*, 8, 327–338.
- Rha, J. Y. (2010). Consumers' usage of online social networks: Application of use-diffusion model. *Journal of Consumer Studies*, 21(2), 443–472.



- Rhyou, S.R. (2002). *Development of self-determination activity and effects of the program on the level of self-determination for students with mild disabilities in transition period*. Unpublished doctoral dissertation. Unpublished master's thesis, Ehwa Women's University, Seoul.
- Rohm, A. J., & Swaminathan, V. (2004). A typology of online shoppers based on shopping motivations. *Journal of Business Research*, 57(7), 748–757.
- Ryan, R. M., & Deci, E. L. (2017). *Self-determination theory: Basic psychological needs in motivation, development, and well-being*. New York: The Guilford Press.
- Scheier, M. F. (1980). Effects of public and private self-consciousness on the public expression of personal beliefs. *Journal of Personality and Social Psychology*, 39(3), 514–521.
- Scheier, M. F., & Carver, C. S. (1977). Self-focused attention and the experience of emotion: Attraction, repulsion, elation, and depression. *Journal of Personality and Social Psychology*, 35(9), 625–636.
- Schiffman, L. G., & Wisenblit, J. (2018). *Consumer behavior*. Upper Saddle River, NJ: Pearson Education.
- Shim, J. E., & Koh, A. (1997). Korean adolescent's clothing behavior as related to self-consciousness and weight control practices. *Journal of the Korean Society of Clothing and Textiles*, 21(8), 1334–1345.
- Solomon, M. R. (2018). *Consumer behavior: Buying, having, and being*. Edinburgh: Pearson Education Limited.
- Song, Y. S. (1994). *Consumer behavior*. Seoul: Bobmun Publishers.
- Statics Korea. (2018). *Online shopping trend*. Retrieved May 3, 2018, from <http://kostat.go.kr>.
- Suh, H. S., & Shin, S. U. (2012). A study on sportswear brand loyalty and purchase behaviors according to lifestyles of 20's single women. *The Costume Culture Association*, 20(4), 500–514.
- Sung, J. M., & Lee, Y. J. (2001). The economic status and inequality of the single elderly households. *Family and Environment Research*, 39(2), 111–130.
- The Myers-Briggs Foundation. (2019). *Extraversion or introversion*. Retrieved January 25, 2019, from <https://www.myersbriggs.org/my-mbti-personality-type/mbti-basics/extraversion-or-introversion.htm>.
- Turner, J. C. (1991). *Social influence*. Belmont: Thomson Brooks/Cole. Publishing Co.
- Turner, R. G., Gilliland, L., & Klein, H. M. (1981). Self-consciousness, evaluation of physical characteristics, and physical attractiveness. *Journal of Research in Personality*, 15(2), 182–190.
- Vansteenkiste, M., Lens, W., De Witte, S., De Witte, H., & Deci, E. (2004). The 'why' and 'why not' of job search behaviour: Their relation to searching, unemployment experience, and well-being. *European Journal of Social Psychology*, 34, 345–363.
- Verhoef, P. C., & Langerak, F. (2001). Possible determinants of consumers' adoption of electronic grocery shopping in the Netherlands. *Journal of Retailing and Consumer Services*, 8(5), 275–285.
- Webster, J., Trevino, L. K., & Ryan, L. (1993). The dimensionality and correlates of flow in human-computer interaction. *Computers in Human Behavior*, 9, 411–426.
- Wehmeyer, M. L. (1992). Self-determination and the education of students with mental retardation. *Education and Training in mental Retardation*, 27, 302–314.
- Wehmeyer, M. L., Kelchner, K., & Richards, S. (1996). Essential characteristics of self-determined behavior of individuals with mental retardation and developmental disabilities. *American Journal on Mental Retardation*, 100, 632–642.
- Welters, R., Mitchell, W., & Muysken, J. (2014). Self-determination theory and employed job search. *Journal of Economic Psychology*, 44, 34–44.
- Westbrook, R. A. (1980). Interpersonal affective influences on consumer satisfaction with products. *Journal of Consumer Research*, 7, 49–54.
- Won, H. J. (2012). *Research of how external information research changes customer's satisfaction and side effect from purchase- focused on digital camera product*. Unpublished master's thesis, Seokyeong University, Seoul.
- Won, J. H. & Jung, J. E. (2014). The segmentation of single-person households based on Sheth's theory of consumption values. In *Korean society of consumer studies. The 2014 spring conference* (pp. 3–8).
- Woo, J. (2012). *Structural equation modeling*. Hannare Academy: Seoul.
- Yang, J. Y. (2007). *A study of singles' tourism behavior according to their lifestyle*. Unpublished master's thesis, Kyung-hee University, Seoul.
- You, S. W. (2013). Considering the lifestyle of single on new concept of kitchen appliances design -multi cooling tray for wine with fruit-. *Korean Society of Basic Design & Art*, 14(2), 243–255.
- Yu, H. K. (2008). *Analysis of the effect of marital status and generation (age) on consumption behavior*. Unpublished master's thesis, Kyung-hee University, Seoul.
- Yu, R., & Sun, S. (2013). To conform or not to conform: Spontaneous conformity diminishes the sensitivity to monetary outcomes. *PLoS ONE*, 8(5), e64530. <https://doi.org/10.1371/journal.pone.0064530>.
- Yuh, Y. K. (2003). Consumption patterns of the elderly couple and elderly single. *Korean Home Management Association*, 21(5), 1–12.
- Zaki, J., Schirmer, J., & Mitchell, J. P. (2011). Social influence modulates the neural computation of value. *Psychological Science*, 22(7), 894–900.

## Publisher's Note

Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.