

[Original Article]

## Impacts of self-monitoring tendency and mobile phone dependency on salience of mobile phone case product attributes

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### Abstract

Prevalent usage of mobile devices among consumers has been well recognized and this is especially imperative among young adult consumers. The mobile phone became the gateway of their communication, media consumption, retail transaction, education, and (virtual) social life. However, there is little empirical research explaining the dynamics behind the psychological underpinning of young adult consumers, specifically Generation Y, to understand their usages and dependency on mobile phones. This study, therefore, aims to unveil antecedents and consequences of Gen Y consumers' mobile phone dependency from a media psychological perspective. We developed a conceptual model based on theory of self-monitoring (Snyder 1974, 1987), extended self-concept (Belk, 1988), and media dependency theory (Ball-Rokeach & Defluer, 1976). Four hundred ninety-eight students in the U.S. provided usable responses to our pencil-and-paper survey. Causal modeling analysis results demonstrated that both *ability to modify one's behavior* and *sensitivity to cues for social appropriate behavior* dimensions of the self-monitoring tendency positively predicted one's level of fashion involvement, which in turn positively predicted his/her mobile phone dependency. Individual's mobile phone dependency, fashion involvement and self-monitoring's ability dimension exhibited positive and direct impact on one's perception of the salience of mobile phone case product attributes. Based on the findings, we provided pragmatic and theoretical implications for the industry and academia.

*Keywords: extended self, fashion involvement, mobile dependency, self-monitoring, product attributes*

### I. Introduction

The recent Footwear news by McDonald (2019) reported that according to market research agency eMarketer, the average American spends more than 3 hours a day on their mobile device which is more than the time spent watching TV. According to McDonald (2019), consumers these days spend most of their mobile usage on retailers' apps rather than web browsers to "interact with brands, add items to their carts and make purchases." Another report by Pixel Union (2019) stated that 77% of Americans owned a mobile device in 2018 and 55% of mobile users admitted that they have nomophobia known as "no mobile phone phobia,"

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or feeling anxious when they do not have their mobile phone on them. It is not uncommon to hear about the problems caused by excessive smartphone use or mobile addiction in the educational or occupational settings in South Korea and Taiwan (e.g., Ha, Chin, Park, Ryu, & Yu, 2008; Hong, Chiu, & Huang, 2012). Yet this mobile phone dependency or excessive usage has been reported all over the globe: Switzerland (Haug et al., 2015) and Iran (Babadi-Akashe, Zamani, Abedini, Akbari, & Hedayati, 2014) to name a few.

A mobile device plays a vital role in the modern day to day life and is considered the closest thing to a user physically and psychologically (Hoffner, Lee, & Park, 2015; Pixel Union, 2019), closer than a wallet and keys. In addition, it is the crucial electronic device that younger adult consumers are drawn to for digital connectivity ubiquitously and/or entertainment. Therefore, it is logical to conclude that a mobile phone case becomes one of the most important accessories to protect the treasured device. Furthermore, mobile phone cases have become the fashionable accessories (Hahn & Kim, 2013) that “send out their own messages about the status and personality of the user” (Bratskier, 2012; Cartner-Morely, 2017). Due to the ubiquitous mobile phone usages for entertainment and communication in the daily lives, mobile phone cases carry significant meanings to the users regarding their self-presentation in the public (Hahn Kim, 2013). The revenue of the global mobile phone accessories market size was valued at US \$224.7 billion in 2018 (Kumar & Baul, 2018). This market size is projected to reach at US \$284.05 billion by 2026, which reflects the 3.1% growth from 2019. Therefore, it is important to examine individual traits and how it affects consumer behaviors related to mobile phone case attributes and mobile usage.

The aim of this study is to explore impact of young adult consumer’s self-monitoring tendency and fashion involvement as antecedents influencing on their mobile phone dependency. In turn, we articulate

that their mobile phone dependency will influence their salience perception of mobile phone case attributes during the pre-purchase phase of decision-making process. The general framework guiding the research proposes that self-monitoring tendency (hereafter SMT) will influence fashion involvement and consumers’ dependency on mobile device usage and will eventually influence mobile case product attributes. The present effort extends prior research on the relationship among self-monitoring tendency, fashion involvement, mobile phone dependency, and salience of mobile phone case evaluative criteria in more of a holistic way using causal model analysis. The current study departs from simple bivariate correlations to model more complex relationships between self-monitoring tendency - ability and sensitivity dimensions - and mobile phone case product attributes having fashion involvement and mobile phone dependency as mediating variables. The following section of the paper will discuss the variables in the proposed conceptual model and their interrelationships.

## II. Conceptual Framework and Hypotheses Development

Based on the theory of self-monitoring (Snyder, 1974), media dependency theory (Ball-Rokeach & Defluer, 1976), and social identity theory (Tajfel & Turner, 1985), we predict that two types of self-monitoring tendency will have significant impact on mobile phone case attributes that includes fashion involvement and mobile phone dependency as mediating variables.

### 1. Self-monitoring tendency and fashion involvement

Self-monitoring tendency is a personal trait referring to one’s sensitivity to cues for socially appropriate behavior and the ability to modify one’s behavior accordingly (Snyder, 1974). High self-monitors are sensitive to social cues and modify their behavior accordingly emphasizing the public self. On the other

hand, low self-monitors are relatively insensitive to social cues and are more interested in their personal value systems and private realities maintaining a consistent self-presentation across situations (Browne & Kaldenberg, 1997).

Previous studies have shown that high self-monitors are more likely to be concerned with physical appearance and body image (Sullivan & Harnish, 1990), more favorable to image-oriented advertisements (Shavitt, Lowrey, & Haefner, 1998), value the social presentation aspect of products, and more involved with fashion products (Kim & Hahn, 2015), while low self-monitors favor quality-oriented ads and products, and prefer utilitarian aspects of products to the experiential ones (Browne & Kaldenberg, 1997). Furthermore, because of the apparent visibility of the mobile devices and usage, Hahn and Kim (2013) found that millennials' fashion involvement had heavily influenced their mobile usage. Mobile device can also be used as a way to express one's social identity to create unique ways of expressing one's membership in a particular group. Kim and Hahn's study's (2015) findings suggested that those with a high level of self-monitoring tendency exhibited more positive influences on fashion involvement, and proclivity to experiment with appearance, compared to ones who scored a low level of self-monitoring tendency. This finding was true for both sensitivity and ability dimensions of the self-monitoring tendency scale. More recently, in the context of the online mass customized fashion products, Kim and Bhaduri (2019) found that generation Z consumers' SMT's ability dimension (not sensitivity dimension) had a positive and direct impact on their level of fashion involvement.

Previous literature suggested that dimensions of the self-monitoring tendency may need to be treated as interrelated yet separate predictors of one's attitude or behavior. For instance, Lee and Workman (2013) examined the level of self-monitoring tendency among fashion change agents and fashion followers and found that total scale of the SMT level exhibited sig-

nificant difference between these two groups. Their finding was in line with Beaudoin, Moore, and Goldsmith (2000) and O'Cass (2000a). Beaudoin et al. (2000) found that fashion leaders are more inner directed, more socially secure, less likely to change their opinions, and less affected by social desirability. Therefore, it is possible that different levels of SMT's sensitivity and ability dimensions will have positive effect on consumers' fashion involvement. O'Cass and Julian (2001)'s findings also indicated that fashion involvement is significantly affected by a consumers' degree of social self-image product image congruency.

When Lee and Workman (2013) delved into each dimension - ability and sensitivity separately, they found that fashion change agents scored higher than fashion followers on sensitivity to others' expressive behavior which was in line with Lennox and Wolfe (1984). They concluded that sensitivity to others' expressive behavior differentiated fashion change agents and fashion followers, not their ability to modify self-presentation. This lack of significant difference between fashion consumer groups on their ability to modify self-presentation is explained by the recommendation made by Lennox and Wolfe (1984). They suggested to analyze the scores of two distinctive dimensions of self-monitoring tendency separately. Lee and Workman's (2013) finding provided the empirical evidence to test the main and independent effects of these two distinctive dimensions of SMT separately. Therefore, we hypothesize the followings:

H1-a: Self-monitoring tendency-sensitivity will have a positive effect on fashion involvement.

H1-b: Self-monitoring tendency-ability will have a positive effect on fashion involvement.

## 2. Fashion involvement, mobile phone dependency and salience of product attributes

Previous literature demonstrated that consumers' product and/or brand involvement influenced their level of attention, information processing, and deci-

sion making regarding the product and/or brand (Isomursu, Isomursu, & Leinone, 2006). Consumers form an attitude towards a product based on their evaluation of associations between the product and its attributes. According to Hahn and Kim (2016), mobile phone use can be considered as fashion behavior due to its high level of visibility in the public setting (Hahn & Kim, 2013; Katz & Sugiyama, 2006; Kim & Hahn, 2012). For instance, mobile phone brand such as iPhone has followed the fashion life cycle. Each time when Apple releases the new version of the iPhone, fashion change agents/leaders adopt the newest version. In a similar manner, Hahn and Kim (2016) argued that the mobile phone case is an extended product category similar to other fashion products. Fashion involvement has been a useful construct predicting consumer's perception or attitude formation in the marketplace. Fashion involvement is defined as "the extent to which consumer views one's interest in fashion/clothing as a meaningful and engaging activity in one's life" (O'Cass, 2001, as cited in Kim & Bhaduri, 2019).

Research on higher and lower levels of fashion involvement and consumer behaviors found that consumers with higher interest in fashion engage more in experiential shopping (Workman & Cho, 2012), shop more often (Flynn, Goldsmith, & Kim, 2000; Goldsmith, Heitmeyer & Freiden, 1991), buy more new fashion items (Flynn et al., 2000; Goldsmith et al., 1991), spend more money on clothing (Goldsmith et al., 1991), and are more likely to purchase products impulsively (Phau & Lo, 2004), compared to those with low level of involvement in fashion (Beaudoin et al., 2000; Cho-Che & Kang, 1996; Darley & Johnson, 1993). In addition, those with higher levels of fashion involvement also have shown statistically significant differences from those with low fashion involvement in their preferences for different stores and clothing attributes (Beaudoin et al., 2000).

Not all opinion leaders regarding technology/mobile phones may be fashion leaders, yet fashion leaders

tend to exhibit higher interest and/or involvement on the publicly visible and/or self-presentation management products. It was found that young consumers' consumption styles were similar to their relationship to the mobile phone and 'addictive' mobile phone was related to trendy and impulsive consumption styles (Wilska, 2003). Moreover, according to Hahn and Kim (2016), students who major in fashion tend to have higher fashion involvement and exhibit significantly higher mobile phone dependency compared to students in a non-fashion major. They provided empirical evidence supporting the correlations between college-aged consumers' fashion involvement and their dependency on mobile devices. This result is also supported by other previous studies that young consumers' mobile usage is heavily influenced by one's fashion involvement due to the external visibility of the mobile usage. Ting, Lim, Patanmacia, Low, and Ker (2011) that the heavy influence of fashion involvement on mobile phone dependency can be explained by young consumers' frequent use of the mobile device for expressing one's individuality and their opinions through social media (Ting et al., 2011). Moreover, Fortunati and Vincent (2009) referred the mobile phone as a type of "affective technology" which is heavily connected to the emotional lives of users. This emotional connection between the mobile phone and fashion to the users/consumers is deemed similar. This connection can be clearly spotted among the ones who are heavily involved in fashion and their dependency on mobile phone as their medium to connect and share their daily experience and #ootd (outfit of the day) via mobile phone. Therefore, it is important to investigate the influence of fashion involvement on consumers' mobile phone dependency and evaluation of mobile case product attributes as previous research on fashion involvement, mobile phone dependency, and product attributes supports the value. It would be critical to explore these relationships in relation to consumer personality traits such as a self-monitoring variable as antecedent variable.

H2: Individual consumer's fashion involvement level will have a positive and direct influence on their dependency on the mobile phone.

H3: Individual consumer's fashion involvement level will have a positive and direct influence on their salience perception of product attributes of the mobile phone case.

### 3. Self-monitoring tendency and mobile phone dependency

According to Skumanich and Kintsfather (1998), a comprehensive conceptualization of motivational goals categorized by MDT which includes understanding, orientation, and play have been perceived as high importance in the media satisfying fundamental human goals. (Ball-Rokeach, 1998; Ball-Rokeach & DeFleur, 1976). Understanding of the MDT refers to individual's need of a basic understanding of oneself and making sense of the world around them. Orientation focuses on an individual's need for guidance in behavior for one's relationship to others. Play refers to one's relationship to society as individual recreational activities can be a reflection of one's perception of learning societal roles, norm, and values (Skumanich & Kintsfather, 1998). Therefore, each of these three major individual motivational goals identified in MDT is categorized as a self-focus versus social-focus. Self-focus is related to one's own beliefs, and self-concept, whereas social focus is comprehension of the nature of their individuals, cultures, and world events (Skumanich & Kintsfather, 1998).

Millennials have been named "digital natives" (Bess & Bartolini, 2011); heavy dependence on mobile technology and social networking are two distinctive traits of this generation (Eastman, Iyer, Liao-Troth, Williams, & Griffin, 2014). Recent research demonstrated that the more a young adult consumer is involved with mobile technology as a communication medium, the greater the probability that the media's promotional messages will affect one's attitude toward the mobile messages and behavioral intention toward using mo-

bile coupons (Bacile, 2010; Kim, Ma, & Park, 2009). Differences in mobile phone platforms also influence the usage of retail mobile apps, for instance, Apple iOS users are more receptive than Android users in the U.S. (Taylor & Levin, 2014). In addition, Kim and Hahn (2015) examined the individual's self-monitoring tendency as one of antecedents of mobile phone dependency and revealed that those who had a higher degree of SMT's ability dimension, had a significantly higher mean score on mobile phone dependency. However, no significant differences were found those between high and low degree of SMT's sensitivity dimension. As their study result somewhat inconsistent effect of two dimensions of SMT - ability and sensitivity - on mobile phone dependency, it is important to examine this relationship again.

H4-a: Individual's self-monitoring tendency-sensitivity will have a positive and direct impact on their dependency on the mobile phone.

H4-b: Individual's self-monitoring tendency - ability will have a positive and direct impact on their dependency toward the mobile phone.

### 4. Mobile phone dependency and salience of its product attributes

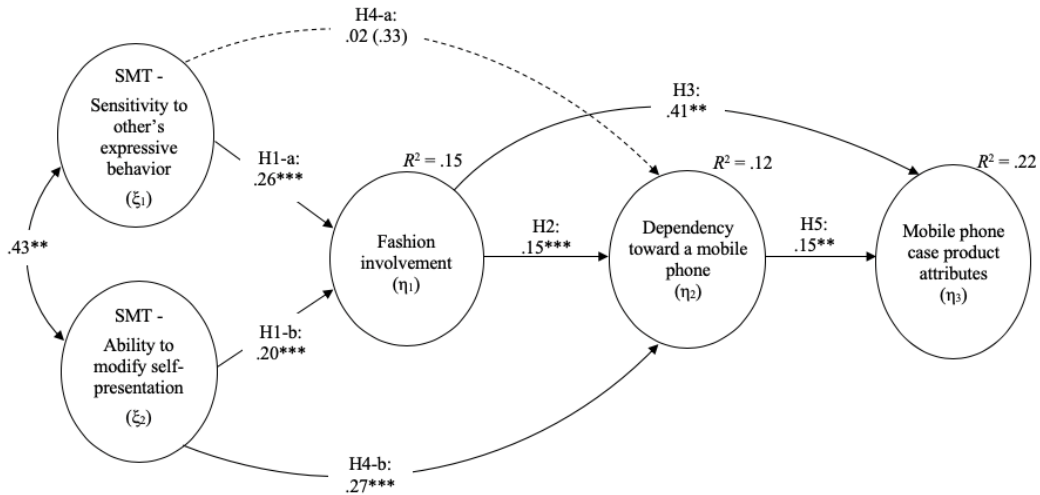
Media dependency theory (MDT), grounded in socio-psychological literature was first developed by Ball-Rokeach and DeFleur in 1976. The MDT suggests that the more an individual is dependent on a certain medium for having his or her needs fulfilled, the medium will become more important to that individual for other activities (Ball-Rokeach & DeFleur, 1976). MDT has been applied to examine how various media types such as newspapers, radio, magazines, and television have different cognitive, affective, and behavioral effects on individuals' activities using the media (Ball-Rokeach, 1998; Grant, Guthrie, & Ball-Rokeach, 1991; Skumanich & Kintsfather, 1998). More recently, numerous empirical studies found the robustness of the MDT in explaining consumer behavior especially

in the context of e-commerce for apparel goods, (e.g., Harun, Soon, Kassim, & Sulong, 2015; Lee & Kim, 2011). MDT has also been used to explain consumer behavior in the m-commerce setting for fashion products (e.g., Kim et al., 2009; Lee & Kim, 2011).

Hahn and Kim (2013) also proved theoretical links between mobile phone dependency and behavioral intentions toward mobile shopping as well as mobile promotional messages for fashion products. Furthermore, researchers found that consumers' mobile phone dependency has a positive relationship with their purchase behavior (e.g., Harun et al., 2015; Ting et al., 2011). For instance, according to Harun et al. (2015), when consumers are dependent on using mobile phone, they may feel more confident and satisfied towards using their mobile phones for purchasing products/services in the long run. Based on the literature, we believe that the user's dependency toward mobile phone can also lead to increased perception of the importance of mobile phone case attributes as most consumers would not possess mobile phone without the

phone cases.

As previous studies found that some attributes of clothing were especially important to consumers as part of their purchase decision process (Birtwistle & Freathy, 1998), we consider the mobile case as an extended product category similar to other fashion products. Therefore, it would be important to examine the effect of consumers' mobile phone dependency on evaluation of mobile case attributes. Furthermore, as previous studies also indicated that the product purchase process might vary among types of consumers and types of products (Eckman, Damhorst, & Kadolph, 1990), it is crucial to examine this relationship. Harun et al. (2015) found that consumers' mobile phone dependency has a positive relationship with their purchase behavior. They concluded that consumers' dependency towards mobile devices will have an impact on their repeat purchase or future purchase of that specific mobile device. Once dependent on and satisfied by a device, the consumer becomes loyal to it and will continue to use the same device. Therefore,



<Fig. 1> Structural equation modeling analysis results for the proposed conceptual model and research hypotheses ( $n=498$ )

Note.  $\chi^2(df=222)=530.63, p<.001$ ;  $\chi^2/df=2.39$ ; NFI=.94; RFI=.93; CFI=.96; IFI=.96; RMSEA=.053  
 Standardized path estimates are reported. *T*-values are shown in the parenthesis for the insignificant paths.  
 \*  $p<.05$  \*\*  $p<.01$  \*\*\*  $p<.001$  using a two-tail test

it is possible to find a direct relationship between MDT and consumers' perception of mobile case product attributes as consumers' evaluation of mobile case attributes would be based on their level of mobile phone dependency. Therefore, we hypothesize the following:

H5: Individual consumer's salience dependency toward the mobile phone will have a positive and direct influence on their perception of mobile phone case product attributes.

Based on the MDT, extended self-concept, self-monitoring tendency, and previous literature in the m-commerce, we propose a conceptual model for the present study exhibiting the hypothesized relationships among the research constructs.

### III. Research Method

#### 1. Study participants and data collection procedure

A paper-and-pencil survey questionnaire was developed, and a purposive sampling technique was employed. The population of this study consisted of generation Y consumers who are attending college. Study participants were recruited from all four levels of the college courses in various disciplines/majors using a non-representative, convenience sampling technique. For the current study the researchers purposively adopted a college student sample due to their market penetration rate among this age group (Perez, 2014) and their extensive usage of mobile devices noted in the literature (Williams, 2015).

#### 2. Instrument development

After deleting the incomplete and invalid responses, a total of 498 usable responses were collected for data analysis. To measure self-monitoring tendency, 12 items were adopted from O'Cass (2000a). Fashion involvement's seven items were adopted from O'Cass (2000b). The respondents indicated their agreement

toward the statements on a five-point Likert scale (1="strongly disagree"; 5="strongly agree"). Mobile case product attributes including a) appearance/design, b) brand/logo, c) functionality/durability, d) expression of individuality, and e) expression of one's interests were adopted from Hahn and Kim (2016). Study participants answered the question that reads, "how important the following criteria to you, when choosing a case for your mobile phone?" based on five attributes. Mobile phone dependency was measured using two items adopted from Hahn and Kim (2016). The items read, "I heavily depend on my mobile device on a daily basis" and "I frequently use my mobile device for any activity." The respondents indicated their agreement toward the statements on a five-point Likert scale (1="strongly disagree"; 5="strongly agree"). The respondents were asked about their current phone manufacturer (e.g., Apple, LG, Samsung, Motorola, etc.) and demographic information. All adopted items' wordings were modified to suit the context of mobile phone usage and relevant consumption.

### IV. Findings

#### 1. Sample profiling

Of the 498 participants, the sample consisted of 373 females (75.1%) and 124 males (24.9%). A majority of the sample were Caucasian American/Non-Hispanic White (73.7%), followed by African American (13.7%) and multi-racial (4.0%). Over 70 percent of the participants reported that they acquired graduate degrees (41.9%) or bachelor's degrees (36.2%). A majority of the participants indicated that they are attending college - seniors (36.9%), juniors (24.3%), sophomore (25.5%), and freshmen (10.4%). A variety of majors from business, communication, and education among others were included in the data. Regarding the manufacturers of mobile devices owned by the respondents, Apple's iPhone was prevalent ( $n=417$ ; 83.7%).

To detect the non-response bias in the data, the re-

searcher compared the responses on research constructs and demographic variables between early respondents (first 10%) and late respondents (last 10%) to our survey, using *t*-tests and chi-square tests. No significant differences were found between these two groups on their responses to the variables. Thus, the research proceeded with further data analysis.

## 2. Measurement model analysis

The proposed conceptual model consists of two exogenous variables (Self-monitoring tendency - Ability and Sensitivity) and three endogenous constructs (fashion involvement, dependency toward the mobile phone, and mobile phone case product attributes). Descriptive statistics and correlation coefficients among constructs for the model for both luxury level groups are presented in (Table 1).

Measurement model results are shown in (Table 2) along with standardized factor loadings, average variance extracted and squared multiple correlation for both absolute and accessible luxury consumer groups. Confirmatory factor analysis of the measurements for multi-item scales provided evidence to conclude that the measurements had adequate fit. The average variance extracted values for the five measurement models ranged from .46 to .87, an acceptable measurement structure of the constructs (Fornell & Lacker, 1981). Thus, the research concluded that the measure-

ment models were reliable and valid.

## 3. Structural equation modeling analyses: Testing hypotheses

The results of structural equation modeling analysis testing the proposed structural model fit and path coefficients are shown in (Fig. 1). To assess model fit, a chi-square statistic, normative fit index (NFI), relative fit index (RFI), comparative fit index (CFI), incremental fit index (IFI), and root mean square error of approximation (RMSEA) were used following criteria suggested by Kline (2004) as well as Schumacker and Lomax (2004). The results of the analysis of the proposed model demonstrated that data fit the model well ( $\chi^2(df=222)=530.63, p<.001; \chi^2/df=2.39; NFI=.94; RFI=.93; CFI=.96; IFI=.96; RMSEA=.053$ ).

All, except one, hypotheses were statistically supported using a two-tail test ( $p<.001; t>1.98$ ). Hypotheses 1a and 1b proposed positive and direct effects of individual's self-monitoring tendency - both sensitivity and ability dimensions on one's fashion involvement and ability dimensions on one's fashion involvement level. SEM findings provided empirical support on these relationships (H1a:  $\gamma_{11}=.26, t=4.78$ ; H1b:  $\gamma_{12}=.20, t=3.70$ ). Hypothesis 2 proposed a positive and direct impact of one's fashion involvement level on their dependency toward a mobile phone. The structural equation modeling analysis revealed that this direct and positive relationship received a statistical support

<Table 1> Correlation matrix of the model constructs

( $n=498$ )

Constructs	1	2	3	4	5	Mean	SD
1. SMT - sensitivity to the expressive behavior of others	1					3.87	0.62
2. SMT - ability to modify self-presentations	.36**	1				3.88	0.65
3. Fashion involvement	.31**	.27**	1			3.92	1.14
4. Mobile phone dependency	.15**	.27**	.20**	1		4.40	0.71
5. Mobile cell phone case product attributes	.16**	.20**	.42**	.24**	1	3.74	0.97

\*\*  $p<.01$



&lt;Table 2&gt; Measurement model results of the proposed model constructs

(n=498)

Constructs and items <sup>a</sup>	Standardized factor loadings	t-value	Average variance extracted <sup>c</sup>
Xi1 - Self-monitoring: Sensitivity			.46
x1 I am often able to read people's true emotions correctly (through their eyes).	.72	-	
x2 In conversations, I am sensitive to even the slightest change in the facial expression of the person with whom I am conversing.	.60	11.98	
x3 My powers of intuition are quite good when it comes to understanding the emotions and motives of others.	.70	13.96	
x4 I can usually tell when others consider a joke to be in bad taste, even though they may laugh convincingly.	.66	13.25	
x5 I can usually tell when I've said something inappropriate by reading it in the listener's eyes.	.67	13.33	
x6 If someone is lying to me, I usually know it at once from that person's manner of expression.	.70	13.91	
Xi2 - Self-monitoring: Ability <sup>b</sup>			.53
x7 In social situations, I have the ability to alter my behavior if I feel that something else is called for.	.72	-	
x8 I have the ability to control the way I come across to people, depending on the impression I wish to give them.	.71	14.46	
x9 When I feel that the image I am portraying isn't working, I can readily change it to something that does.	.59	12.20	
x11 I have found that I can adjust my behavior to meet the requirement for any situation in which I find myself.	.83	16.66	
x12 Once I know what a situation calls for, it is easy for me to regulate my actions accordingly.	.78	15.88	
Eta1 - Fashion involvement			.87
y1 Fashion means a lot to me.	.93	-	
y2 Fashion is a significant part of my life.	.93	40.18	
y3 I consider fashion to be central part of my life.	.90	34.88	
y4 I am very interested in fashion.	.94	41.85	
y5 Fashion is important to me.	.93	39.61	
y6 Fashion is an important part of my life.	.96	44.55	
y7 I am very much involved in/with fashion.	.94	40.80	
Eta2 - Mobile Dependency			.69
y8 I heavily depend on my mobile device on a daily basis.	.84	-	
y9 I frequently use my mobile device for any activity.	.82	8.19	
Eta3 - Mobile phone case product attributes <sup>b</sup>			.62
y10 Appearance/design	.61	-	
y11 Expression of individuality	.91	13.78	
y12 Expression of interests	.81	13.78	

<sup>a</sup>Measurement for constructs shown in Table x were based on a seven-point scale where 1="Strongly disagree" and 5="strongly agree."

<sup>b</sup>Dropped items due to double factor loadings include following three items: x10 I have trouble changing my behavior to suit different people and different situations, y9 Brand/logo, and y10 functionality/durability

<sup>c</sup>Averaged variance extracted was calculated as suggested by Fornell and Larcker (1981).

(H2:  $\beta_{21}=.15$ ;  $t=2.80$ ). In addition, Hypothesis 3 proposing a positive and direct influence of one's fashion involvement level on their salience perception of mobile phone case product attributes received statistical support (H3:  $\beta_{42}=.41$ ,  $t=7.73$ ).

Hypotheses 4a and 4b, proposing the direct and positive impact of individual consumer's self-monitoring tendency - sensitivity (H4a) and ability (H4b) - on one's mobile phone dependency, only received partial support. One's ability of altering one's behavior based on the surroundings/interactions with others exhibited a significant statistical impact on the mobile phone dependency (H4b:  $\gamma_{32}=.27$ ,  $t=4.35$ ), while sensitivity to other's expressive behavior did not have a direct and positive impact (H4a:  $\gamma_{31}=.04$ ,  $t=.66$ ;  $p=.51$ ). Lastly but not least, Hypothesis 5, examining a positive and direct effect of individual consumer's dependency toward a mobile phone on their salience perception of mobile phone case product attributes, also received a full statistical support (H5:  $\beta_{43}=.15$ ,  $t=2.92$ ).

A decomposition analysis of direct, indirect, and total effects was conducted to dissect the direct and indirect effects of personal disposition variables (self-monitoring tendency - ability to modify self-presentation and sensitivity to other's expressive behavior -

and fashion involvement) and their mobile phone dependency as mediating variable on their salience formation toward mobile phone case product attributes (See <Table 3>). Overall, the proposed conceptual model explained a fair amount of variance for fashion involvement ( $R^2=.15$ ), and both SMT's sensitivity to other's expressive behavior (.26) and SMT's ability to modify self-presentation (.20) had statistically significant direct effects on one's fashion involvement.

The proposed model also explained a fair amount of variance for one's dependency toward a mobile phone ( $R^2=.12$ ), and all predictor variables except sensitivity to other's expressive behavior dimension of SMT had significant direct and indirect effects. From the decomposition analysis, we revealed that sensitivity may not impose the direct impact on one's dependency toward a mobile phone; however, its indirect effect through a mediating variable - fashion involvement - was significant (.04). Out of three predictor variables, SMT's ability to modify self-presentation exhibited the strongest direct and total effect on one's dependency toward the mobile phone (.27 and .29, respectively), followed by fashion involvement (.15).

Finally, the model also explained a moderate amount of the variance for one's salience formation toward mobile phone case product attributes ( $R^2=.22$ )

<Table 3> Results of composition of effect analysis

<u>Dependent variables</u>			
Independent variables	Direct effects	Indirect effects	Total effects
<u>Mobile phone dependency</u>			
SMT - sensitivity to others' expressive behavior	.02	.04	.06
SMT - ability to modify self- presentation	.27	.03	.29
Fashion involvement	.15	-	.15
<u>Mobile phone case product attributes</u>			
SMT - sensitivity to others' expressive behavior	-	.11	.11
SMT - ability to modify self- presentation	-	.12	.12
Fashion involvement	.41	.02	.43
Mobile phone dependency	.15	-	.15

and all predictor variables had significant direct and/or indirect effects. Fashion involvement exhibited the strongest direct effect (.41) followed by one's dependency toward the mobile phone (.15). When examining the indirect effects, SMT's ability to modify self-presentation (.12) and SMT's sensitivity to others' expressive behavior (.11) had the strongest indirect effects on one's salience construal of mobile phone case product attributes.

## V. Discussion

Grounded on the self-monitoring theory and media dependency theory, we developed a conceptual model and empirically tested the model using the structural equation modeling analysis. Especially, in this present study, we adopted the recommendation regarding two interdependent structural dimensionality of the self-monitoring tendency (e.g., Lee & Workman, 2013; Lennox & Wolfe, 1984; Kim & Bhaduri, 2019) and treated the self-monitoring tendency as two separate interdependent constructs to examine the direct impact possibly derived from both sensitivity and ability dimensions. As postulated in the SMT, we observed a statistically significant and substantial correlation between the two dimensions.

As previous literature postulated, we found the empirical evidence between self-monitoring tendency - both sensitivity and ability dimensions - and fashion involvement in the context of mobile phone usage. Particularly, the sensitivity dimension of the SMT exhibited stronger direct and positive impact (.26) on one's fashion involvement, compared to the ability to modify self-presentation dimension (.20). This implies that one's sensitivity to other's expressive behavior had a slightly stronger predictive power over the fashion involvement, when controlling the ability to modify self-presentation. For the marketers, we suggested understanding their target market deeper in terms of their SMT to better market their fashion-focused products or appearance management products. Consumers,

who are profoundly influenced by the interactions with others and sensitive to other's expressive behaviors, are heavily involved in consumption of fashion products and external image of the products such as mobile cases. Therefore, it is critical for marketers to understand and utilize consumers' self-monitoring tendency levels to apply their promotional activity better. For instance, marketers might want to focus on high fashion items and its brand image as well as product design/appearance of mobile case devices to consumers with a higher level of SMT. Also, marketers can consider to promote more general market product categories' to both high and low self-monitors.

This study contributes to the literature and the academia by strong empirical evidence to support the theoretical ties between fashion involvement and individual's dependency toward their mobile phones. Our findings suggest that individual's level of fashion involvement is a robust predictor of one's daily and frequent usage of a mobile phone, which is in line with the previous studies (Bratskier, 2012; Cartner-Morely, 2017; Hahn & Kim, 2016). When explaining the predictability of the individual's dependency toward a mobile phone, we also employed both dimensions of the SMT based on the visible usage of the mobile device in public noted in the literature (Hahn & Kim, 2013; Kim & Hahn, 2015). Interestingly, our data supported the strong and significant direct impact of SMT's ability dimension on one's dependency toward a mobile phone. This implies that consumers who have capacity to change one's presentation in the social setting may be more likely to be dependent on one's mobile phone. Even though SMT's sensitivity to other's expressive behavior dimension did not directly influence one's dependency toward a mobile phone, it is important to note that its indirect effect through fashion involvement was weak yet significant.

In addition, we revealed the positive and significant prediction of fashion involvement and mobile

phone dependency on the importance the individual consumer places on the mobile phone case product attributes. This finding expands the application of the *extension of self* concept postulated by Belk (1988). His assertion and theory on the extension of self was established in the 1980s and this has been applied in so many areas of the marketing and consumer behavior. In this study, we are extending the significance of the mobile device as an extension of self which in turn influences the individual consumers' evaluation and importance placed on the mobile phone case attributes.

Our findings can be useful to the mobile case product developers including luxury fashion houses. For instance, the salience of decorating or expressing one's taste through the mobile phone case has been noted by many luxury houses which have launched the mobile phone cases with their logos and trademarked materials, such as Louis Vuitton, Gucci, other high-end luxury houses, and affordable luxury brands such as Kate Spade New York and COACH (Cartner-Morley, 2017). Due to the visibility of the brand name and logos of the mobile phone cases, we believe that consumers' SMT levels would be strong predictors and influencers of the adoption of the mobile phone cases and evaluation of its product attributes. For instance, ones with greater sensitivity to other's expressive behavior will be much more likely to be influenced by the luxury brand's mobile phone cases seen in the public; while ones with greater ability to modify self-presentation would be much more likely to adopt the luxury brand's mobile phone cases. Thus, luxury fashion houses could utilize the findings from this study to better improve their design and innovation management of high visibility product accessory categories such as mobile phone cases or key rings.

One of the recent studies, examining the SMT and fashion involvement in the context of online mass customization for gift giving purposes, found that ability dimension exhibited a significant impact on fashion involvement, while sensitivity dimension did not (Kim & Bhaduri, 2019). Therefore, we carefully

suggest that future study further examine the structural dimensionality as well as individual dimensionality of the SMT in various market settings. As previous studies have demonstrated that there were gender differences when examining SMT and consumer involvement (Browne & Kaldenberg, 1997), it may be interesting to conduct another study examining demographic variables in relation to our current study's conceptual model. In addition, this study can be applied and replicated across a wider spread of products and service related to mobile usage to understand contemporary young consumers' behavior.

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