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Roles of self-monitoring, fashion involvement and technology readiness in an individual's propensity to use mobile shopping

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Abstract

Purpose – This paper aims to investigate the relationships between self-monitoring, fashion involvement and technology readiness in the mobile shopping context. Although mobile shopping is still a novel activity in Turkish economical and social spheres, it has the potential to become an important driver of B2C electronic commerce in Turkey. Many Turkish firms have already extended their multichannel strategies by integrating a mobile channel into their pre-existing on-line and off-line channels. However, customers should be ready to actually embrace mobile commerce for the success of these strategies.

Design/methodology/approach – To test the proposed research hypotheses, a survey was administrated online to 284 volunteer undergraduate students, who were potential users of mobile shopping channel. The measurement items were developed by adapting and modifying the previously validated 13-item, self-monitoring, 16-item technology readiness index 2.0 and 5-item fashion involvement scales.

Findings – Results from a partial least squares analysis showed that the ability to modify self-presentation has a significant moderating influence on fashion involvement and technology readiness relationships. However, the moderating effect of sensitivity to the expressive behaviours of others for the same relationship was found to be insignificant. Further, fashion involvement appeared to have significant and direct influences on both technology readiness and attitudes towards mobile shopping. Finally, strong relationships between technology readiness, attitude and intentions to use mobile shopping were detected.

Originality/value – There has been little research effort conducted to examine the proposed relationships between the cited research variables in a non-Western country. Therefore, these study results yielded valuable insights for both theory and actual practice.

Keywords Turkey, Mobile shopping, Technology readiness, Self-monitoring, Fashion involvement

Paper type Research paper

1. Introduction

The world has been witnessing a major transformation from electronic commerce to mobile commerce because of the advantages of mobile communication technology and the rapid diffusion of mobile devices in society. As mobile devices, particularly mobile phones, are now an integral part of daily life, a constant companion of customers and a bridge between customer and retailer, retailers perceive these devices as an ideal distance communication and supplementary selling channel (Shankar *et al.*, 2010). The latest report indicates that the number of smartphone users was expected to reach more than two billion or one-quarter of global population by the end of 2016 (EMarketer, 2014). Retailers have already taken steps to change their multi-channel marketing strategies to Omni-Channel marketing ones so as to exploit the commercial advantages of mobile channel communication. According to the Forrester Research, media companies and retailers are especially aware that the online traffic

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from mobile devices is constantly increasing (Husson and Ask, 2014). The same situation is also true in Turkey. There are nearly 74 million mobile subscriptions, and smartphone penetration has hit 96.9 per cent of households (TUİK, 2016). Further, there are nearly 55 million internet users, 33 per cent are regular online shoppers and 85 per cent of those aged 16-25 years are also heavy mobile internet users (TUİK, 2016). However, mobile shopping is still a novelty in Turkey. Especially, the Omni-Channel retailers have made heavy investments in applications and systems as a way of improving their services. However, many mobile phone users browse their websites for information on products and services, but very few engage with mobile shopping using those devices. The success of these Omni-Channel marketing strategies and return on their investment thus depends on understanding the customer's propensity to adopt mobile shopping. This study aims to investigate the relationships between self-monitoring, fashion involvement and technology readiness in the mobile shopping context. There are nearly 55 million internet users, 33 per cent are regular shoppers in Turkey and 85 per cent of those aged 16-25 years are intense mobile phone and internet users.

2. Technology readiness

Since the proliferation of information and communication technologies into almost every facets of daily life, a variety of theoretical perspectives and conceptual models have been conceived to explain and predict the end-user adoption of these specific applications in organizational and non-organizational settings. Among them, the theory of reasoned action (TRA), the technology acceptance model (TAM), the revised technology acceptance model (TAM2), the theory of planned behaviour (TPB), the decomposed theory of planned behaviour (DTPB), the innovation diffusion theory (IDT), the model of PC utilization (MPCU), the motivational model (MM), the social cognitive theory (SCT) and the Unified Theory of Acceptance and Use of Technology (UTAUT) have emerged as the more powerful and parsimonious models that explain and predict actual technology adoption. However, this effort has brought about the diversion of researcher attention away from technology adoption to technology continuance. Sun and Jeyaraj (2013) suggest that there has been a tendency to conflate technology adoption and continuance by overlooking their iterations in the different responses of individuals for the diffusion cycle of technological innovations. Rogers (1983, p. 206) proposed that an innovation diffuses into a society in five successive steps, namely, knowledge (exposure of the information about innovation), interest (comprehension of innovation details), decision (acceptance/rejection decision after analysing the positive and negative aspects of innovation), implementation (initiating more effort to collect data about the dependence and usefulness of innovation) and confirmation (final decision about usage continence of the innovation). While the adoption response accounts for the attributions of non-adopters for a specific technology during the knowledge, interest and decision phases, the continuance response addresses the attributions of adopters regarding the same technology during the implementation and confirmation stages of the diffusion process (Çelik, 2013; Sun and Jeyaraj, 2013). Despite the significant contributions of technology adoption and continuous research on understanding the attribution, individual and contextual factors that shape the diffusion cycle, the question regarding what makes individuals ready to embrace technological innovations has remained unanswered before the recent technology readiness research.

In answering this particular question, Parasuraman (2000) pioneered the development of technology readiness literature by conceptualizing the determinants of an individual's predisposition to adopt and use new technologies. Technology readiness (TR) can be defined as the extent to which people's propensity to embrace and use new technologies to accomplish goals in home life and at work (Parasuraman and Colby, 2001, p. 27). It stands for a state of mind that manifests itself as a personal proneness to use new technology that is collectively

determined by mental enablers and inhibitors. This line of research is clearly different from the technology acceptance research because TR focuses on the general beliefs regarding the technology products and services rather than the actual perceived characteristics of specific technology products and services (Ratchford and Barnhart, 2012). The fundamental synopsis thus is that technology readiness research appears to be individual specific rather than system specific (Lin *et al.*, 2007). It is grounded in the paradoxes of the technology framework proposed by Mick and Fournier (1998), who suggested that technology simultaneously precipitates both positive and negative feelings with which individuals must cope in the regarded framework. They can range based on the coping strategies of individuals to overcome the aforementioned paradoxes along a continuum that runs from highly technology ready on the one end to highly technology resistant on the other (Mick and Fournier, 1998).

Parasuraman (2000) proposed four TR dimensions to capture the positive (enablers) and negative (inhibitors) technology feelings as suggested by TR's referent framework. These contributors include optimism (a positive view of technology and the belief that it offers people increased control, flexibility and efficiency in their lives) and innovativeness (a tendency to be a technology pioneer and thereby influence others) (Chang and Kannan, 2006; Lai, 2008). The inhibitors include discomfort (a feeling of intimidation or lack of control over technology) and insecurity (a distrust of technology and scepticism regarding its ability to work properly) (Taylor *et al.*, 2002). An individual's technology readiness is determined by a combination of the contributors that foster adopting and using a technology and the inhibitors that prevent that person from adopting and using that technology. These dimensions represent the overall attitudes of individuals towards the new technology rather their competencies to use it (Stanford *et al.*, 2009).

Rogers (1983, pp. 213-223) suggests that the relative advantage of a technological innovation expressed in terms of economic or social terms, as perceived by the members of the social system positively relates to its rate of adoption in that system. In many studies based on technology adoption and use, perceived control of the technology and its provision of convenience have been found to be salient determinants of individuals' evaluations of the technology. Personal innovativeness, defined as a voluntarily risk-taking behaviour, also positively influences the adoption of a new technology because its use brings about both inherent risks and uncertainty (Agarwal and Prasad, 1998). The members of innovator and early adopter groups were relatively early in adopting new ideas than were other members of the social system because they are eager to try them, willing to take risks and able to cope with the uncertainty (Rogers, 1983, pp. 246-249). Previous studies on wireless internet and mobile shopping adoption have observed the significant relationship between the innovativeness and actual use of regarded technologies (Hung and Cheng, 2013, 2003; Yang, 2005).

The discomfort construct of TR almost captures the similar concept embodied as technology anxiety in the previous studies. Like discomfort, technology anxiety stems from the cost and difficulties of learning a new technology (Mukherjee and Hoyer, 2001). Meuter *et al.* (2003) provide evidence that technology anxiety not only negatively influences the adoption of technology but also inserts negative impact on that technology experience. Much, although not all, research has empirically supported the adverse effects of anxiety on individuals' beliefs for using and their intentions to use technology (Bobbitt and Dabholkar, 2001; Dabholkar and Bagozzi, 2002; Dabholkar and Sheng, 2008; Pavlou and Fygenson, 2006; Taylor and Todd, 1995). Finally, it is well documented in the literature that security concerns lower the adoption rate of a technological innovation (Hoffman *et al.*, 1999). Previous studies report that while this perceived risk negatively impacts the adoption and use of the relatively new information systems, such as online shopping and internet banking, it is the trust that fosters their adoption and utilization (Çelik, 2013; Liu and Wei, 2003; Mukherjee and Nath, 2003).

Technology readiness index 1.0 (TRI 1.0) operationalized this construct through the development of a 36-item scale (Parasuraman, 2000). Over the years, TRI 1.0 has been validated across a broad range of research settings for various information technologies, including the organizational use of e-insurance (Taylor *et al.*, 2002), the use of self-service technologies by Chinese and American students (Elliott *et al.*, 2008), employee readiness to adopt wireless technology (Chang and Kannan, 2006), information and communication technology readiness of university students (Gombachika and Khangamwa, 2012) and the use of social networking sites in Brazil (Borrero *et al.*, 2014). However, much of the TRI research has failed to confirm the four TRI dimensions. For example, Elliott *et al.* (2008) could not find any evidence of the external validity of the 36-item original scale in Chinese and American settings. Likewise, Sophonthummapharn and Tesar (2007) reported that overall TRI scores failed to predict the participants' propensities to subscribe to the commercial SMS services in their own study conducted in Thailand. Further, the length of the scale hinders its wide spread usage in the research on this focal issue. Many researchers have a concern that the scale length could potentially decrease the response rate and reliability due to respondent fatigue and acquiescence bias (Parasuraman and Colby, 2015).

Finally, many TRI measures are specific to technologies or situations that were new at the time of the scale's development, but are no longer (Ratchford and Barnhart, 2012). Therefore, the TRI 2.0 scale was conceived by Parasuraman and Colby (2015) through a renovation, modification and purification of the TRI 1.0 scale to address the new technologies, enhance the discriminant validity by adding new items and thus create a more parsimonious scale. The existing technology readiness dimensions have four items each with a total of 16 measures in the TRI 2.0 scale. It was administrated in a variety of contexts including health-care services in Finland (Hallikainen and Laukkanen, 2016), online services of electric suppliers (Koivisto *et al.*, 2016), smart assistive technologies in Canada (Chenel *et al.*, 2016), tele-monitoring health care services in the UK (Crundall-Goode *et al.*, 2016), mobile commerce (Ashraf *et al.*, 2016) and smartphone applications to track immunizations in the USA (Wilson *et al.*, 2015). It has received some empirical support for its capability to present a global technology readiness score by which individuals were segmented into explorer, pioneer, sceptic, paranoid and technology laggard groups (Rosenbaum and Wong, 2015). As stated earlier, the global technology readiness score represents the overall attitude of individuals towards the new technology (Stanford *et al.*, 2009). As the empirical evidence suggests that personal beliefs form an attitude towards technology, which in turn forms a behavioural intention, followed by actual technology use (Gefen *et al.*, 2003), the following hypotheses were proposed here:

H1. The global TRI score has a positive direct influence on an individual's attitude towards mobile shopping.

H2. An individual's attitude has a direct positive influence on behavioural intention to use mobile shopping.

3. Fashion involvement

Fashion can be defined as a way of behaving that is temporarily adopted by a discernible proportion of members of a social group because that chosen behaviour is perceived to be socially appropriate for a time and situation (Akyol, 2010; Çınar and Çubukçu, 2009). It is a kind of code or language used to create symbolic meanings, transfer them to the cultural system and help perceivers to interpret them (Sproles, 1985, p. 55). It also reflects the waves of social conformity or social diffusion wherein a new style or practice moves from its creation to public presentation and public acceptance (Sproles, 1974, pp. 463-472). People

learn vicariously by observing and modelling those others when they form social groups (Akyol, 2010; Çınar and Çubukçu, 2009). They use intentionally the symbolic meanings approved by the group to establish a group identity through which fashion spreads throughout the society as a socially appropriate symbol for a certain period. These symbolic meanings that involve social identity than spread out in the group through adoption by group members, and therefore, they become socially appropriate symbols for a certain period (Alagöz, 2009; Sproles, 1985, pp. 55-56; Tek, 1999, pp. 425-426). However, it could be not only conformist movement but also competitive action because when it makes unclear the barriers between the social layers and the diversity between the members of different social groups, it is then used to create new self-identities, thereby reflecting the social status of individuals (Çınar and Çubukçu, 2009; Dunn, 2008, p. 137; Solomon *et al.*, 2006, p. 545). In this instance, fashion becomes the highly relevant aspect of customer's choice of products or services' conveying the symbolic meanings that satisfy his/her conformity or differential needs (Beaudoin and Lachance, 2006; Stanforth, 1995). Therefore, it is an important part of the consumption culture and consumer demand.

Fashion involvement is the motivational state of arousal or interest towards an object as stimulated by the needs, values and desires and the extent to which that object is perceived as personally relevant (O'Cass, 2004; Zhang and Kim, 2013). Fashion involvement is an important aspect of the diffusion of innovations in a society. Rogers (1983, p. 215) states that the main motivation for the early adopters of technological innovations was to gain and/or maintain a social status the same as the fashion pioneers. The main difference between the diffusion of technological innovations and fashion trends is that the latest is motivated by the technical advantages of innovation rather than mere conformity. Further, the customers characterized as being highly involved in fashion trends form positive attitudes towards and are inclined to purchase the products/services delivering the desired social prestige (Deeter-Schmelz *et al.*, 2000; Summers *et al.*, 2006). Especially, fashion leaders tend to influence their social environment by being open to different experiences, thinking leaders of innovation adopters, self-monitors of fashion trends, fashion transmitters and reference sources for fashion (Belleau and Nowlin, 2001; Chen *et al.*, 2008; Zhang and Kim, 2013). The consumption preferences were highly affected by the social identity offers of close reference groups and specifically young customers who adjusted their consumption behaviours to avoid social sanctions by getting the approval of these highly regarded referees (McKintyre and Miller, 1992). The same process could be observed in the innovator, early adopter and early majority groups during the diffusion and adoption of technological innovations (Rogers, 1983, p. 215; Venkatesh and Davis, 2000; Venkatesh and Bala, 2008). These fashion pioneers and their followers could then possibly fall into the groups below because they share the same characteristics of being more inner directed and less risk conscious (Fiore *et al.*, 2004; Agarwal and Prasad, 1998; Kwon *et al.*, 2007; Parasuraman and Colby, 2001, pp. 59-61). Therefore, the following hypotheses were formulated here:

H3. Fashion involvement has a positive direct influence on an individual's global TRI score.

H4. Fashion involvement has a positive direct influence on an individual's attitude towards mobile shopping.

H5. Fashion involvement has a positive direct influence on an individual's behavioural intention to use mobile shopping.

4. Self-monitoring

As a personal disposition, self-monitoring can be defined as the extent to which an individual's tendency to monitor and adjust his/her behaviour to ensure its appropriateness is based on how that behavior is perceived by others in a social context (Snyder, 1974). Social psychologists suggest that individuals vary across their abilities to notice the social cues that create a desired public appearance and modify their behaviour in accordance with these cues. High self-monitors have strong motivations and the skills to collect these social cues and use them as guidelines for the adjustment of their own behaviours based on the expression and self-presentation of others in social situations (Browne and Kaldenberg, 1997). Low self-monitors are, however, insensitive towards changing their self-presentations across the situational requirements and mostly guided by their personal values and own realities (Kim and Hahn, 2015). Therefore, high-self monitors appear to be much more a group of pragmatists when compared to low-self monitors. Self-monitoring has been shown to affect a consumer's purchase decisions in various marketing studies. For example, Shim *et al.* (1991) stated that high self-monitors tend to be innovation seekers, thought leaders and self-assured and heavy purchasers of branded products in a clothing purchase study. While high-self monitors pay attention to product image rather than its content and quality, low self-monitors are concerned about product quality claims and tend to purchase products that are promoted via quality messages (DeBono, 2006; Snyder and DeBono, 1985). Further, Synder (1974) found that high self-monitors rated the quality of a sporty car more favourably, whereas low self-monitors gave more favourable quality ratings to a functional car because of their beliefs in hidden flaws that can be masked by a glittering presence.

Self-monitoring is closely associated with the purchase decisions for fashion products (e.g. clothing, cars and jewellery) because of their use as props to convey status images to other people in the expectation of social status gain. Furnham (1989) stated that high self-monitors have the ability to notice the social meanings of fashion trends and modify their actions accordingly to thereby construct a socially acceptable image. Especially high self-monitoring females were found to be opinion leaders in clothing and manifest it for social approval (Davis and Lennon, 1985, p. 179). Likewise, Rose and Kim (2011) argued that high self-monitors tend to share their opinions with others in an attempt to achieve higher social status. Self-monitoring has subdivided into two dimensions by Lennox and Wolfe (1984), namely, the ability to modify self-presentation and a sensitivity to the expressive behaviours of others.

Auty and Elliott (1998) reported that the ability to modify self-presentation is an important reference point for those seeking a brand's social appropriateness, and high self-monitors have a predisposition towards modifying their self-presentations by purchasing socially appropriate brands so as to comply with the fashionable identity presented in the advertising. Further, Browne and Kaldenberg (1997) underscored the view that high self-monitors have more materialistic tendencies and prefer to purchase higher involvement products for their symbolic meanings through which they can modify their self-presentations by conveying these products' potential status images to others whom they seek to impress or outrank. Finally, Kim and Hahn (2015) found in their study on young customer's mobile dependency that their participants' high scores on both the ability to modify self-presentation and their sensitivity to the expressive behaviours of others appeared to have more positive impacts on fashion involvement and their tendency to experiment with appearance when compared to those having low scores for both dimensions. Thus, the following hypotheses have been posited here:

H6. Ability to modify self-presentation has a moderating influence on fashion involvement and an individual's global TRI score relationship.

H7. Sensitivity to the expressive behaviours of others has a moderating influence on fashion involvement and an individual's global TRI score relationship.

5. Research methodology

To test the hypothesized research model shown in Figure 1, a sample of voluntary undergraduate students having an adequate mobile experience was surveyed using online survey. As with many online studies, a convenience sample was used for the study. Parasuraman and Colby's (2015) 16-item TRI 2.0 scale was used to measure technology readiness level with the permission of Rockbridge Associates, Inc. It was also modified to reflect the mobile shopping propensity before the pilot studies. Further, a five-item fashion involvement scale was designed based on the scales proposed by McKintyre and Miller (1992), Shang *et al.* (2005) and Goldsmith *et al.* (1993). The three-item attitude and three-item behavioural intention scales were adapted from the studies of Venkatesh and Davis (2000) and Venkatesh *et al.* (2003).

Technology readiness, fashion involvement, attitude and behavioural intentions were measured using a Likert-type scale with end points indicating strongly disagree (1) and strongly agree (5). The self-monitoring scale was drawn from Lennox and Wolfe's (1984) study. It consisted of a seven-item ability to modify self-presentation and a six-item sensitivity for the expressive behaviours of other subscales. The six-point ordinal scale anchored at 1 (certainly, always false) and 6 (certainly, always true) was used to measure these subscales. Two rounds of piloting were undertaken before administrating the surveys by directly distributing the questionnaires to small student groups who had taken no part in the main study. These scales showed no need for modification and purification at the end of the second pilot study, and 284 effective responses were obtained from the online survey at the end of two weeks. The characteristics of the sample are provided in Table I.

The partial least squares (PLS) technique was used to examine the measurement properties of the constructs and estimate the coefficients of construct associations that were proposed in the research model. PLS has been preferred because of its advantages over the covariance-oriented approaches (e.g. structural equation modelling or multiple regression

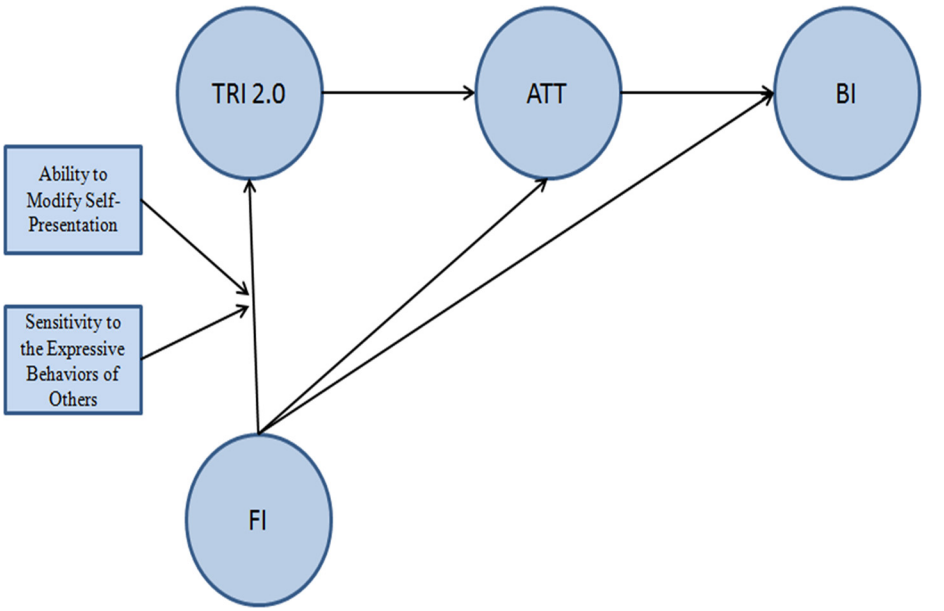

Figure 1.
The proposed research model

analysis), as its provision of reliable results addressed the research data under the conditions of nonnormality, small sample size and multicollinearity (Compeau and Higgins, 1995; Chin and Gopal, 1995). Anderson and Gerbing's (1988) two-step approach was embraced to carry out the modelling strategy that was incorporated to determine the psychometric properties of the measurement model first and then estimate the path coefficients of the structural model using the interaction effects afterwards. As the measurement model was specified as a reflective model, all measures were plugged into their relevant constructs. SmartPLS 3 software was used to perform these analyses (Ringle *et al.*, 2014).

The principal components factor analysis with varimax rotation (EFA) and the confirmatory factor analyses (CFA) were conducted to examine the dimensionality of each scale or the loading patterns for the measures on their assigned constructs. Also, the bootstrapping with 500 subsamples was performed to assess the significance of item loading patterns as specified in the measurement model. As seen in Table II, all internal consistency reliabilities (both Cronbach's alpha and composite scale reliability values) were above the conventional threshold of 0.70 except for technology readiness. Although the construct's reliability estimate was below 0.70, the composite reliability of its sub-dimensions ranged between 0.75 and 0.85, thus supporting internal consistency (Iacobucci

Description	Options	Frequency (n = 284)	(%)
Gender	Female	147	52
	Male	137	48
Age	<20	0	0
	20-21	246	87
	22-23	37	12
	>23	1	1
Computer ownership	Yes	231	81
	No	53	19
Computing experience	<2	16	6
	2-4	89	34
	4-7	129	45
	7-9	34	12
	>9	7	3
Internet usage	<2	24	8
	2-4	153	54
	4-7	100	35
	7-9	5	2
	>9	2	1
Shopping online	Yes	218	77
	No	66	23
Smartphone ownership	Yes	271	95
	No	13	5
Mobile internet usage	Yes	273	96
	No	11	4
Mobile shopping	Yes	101	36
	No	183	64
Familiarity with mobile shopping	Very unfamiliar	54	19
	Unfamiliar	132	47
	No opinion	59	21
	Familiar	28	10
	Very familiar	11	3

Table I. Characteristics of study samples

and Duhachek, 2003). Also, all average variance extracted (AVE) scores exceeded the recommended cut-off value of 0.50 providing additional evidence for scale reliability (Gerbing and Anderson, 1988; Gefen, 2003). The CFA results indicated that all measures loaded significantly on their intended variables. However, some item loadings appeared to range between 0.60 and 0.69 below the suggested level of 0.70 (Fornell and Larcker, 1981). However, according to Chin (1998, p. 325), item loadings that were even below 0.60 can be acceptable if there are other indicators available in the measure battery for a comparison. Thus, the convergent validity of each scale was demonstrated based on the EFA and CFA results.

Finally, discriminant validity was verified by comparing the inter-construct correlations to the square root of AVE scores. As presented in Table III, each square root of AVE (the bold elements on the diagonal) surpassed the inter-construct correlations (the numbers off the diagonal), thereby supporting the discriminant validity of each scale (Chin 1998; Gefen and Straub, 2005).

The global TRI score was calculated using the formula provided by Parasuraman (2000) as seen at the bottom of Table IV. The mean TRI score was yielded at 2.82 with the means ranging from 2 to 4, indicating a low readiness level for mobile shopping. The reason for this result could be the high mean values of discomfort and insecurity variables that suggest that the respondents deeply feel their lack of control for and perceive high risk because of the uncertainty about this new shopping medium. According to Colby and Parasuraman (2003), the respondents could be classified as part of technology pioneer group.

A PLS analysis was conducted to test all the research hypotheses. A bootstrap, with 500 samples, was run to obtain the *t*-values and two-tailed significance levels (at 0.95 confidence interval) of path coefficients (Hair *et al.*, 2016, p. 136). The critical *t-values* of 1.96 for the two-tailed test was used for the significance level of 0.05. The ability to modify self-presentation and sensitivity to reflect the expressive behaviours of others were dichotomized into high and low groups by using the median split. These groups were then coded using dummy codes wherein the responders above the median were designated as high (1) and those below were labelled as low (0). Table V presents these model test results that predict the relationships between the model variables with (D + I) and without (D only) the interaction effects of the ability (SMA) and sensitivity (SMS) dimensions of self-monitoring.

The four columns in Table V present the compression of the results for the direct effects only and the direct effects using interaction terms. *H1*, which posited that TRI has a positive direct influence on attitude towards mobile shopping, was supported ($\beta_1 = 0.26, p \leq 0.01$). Attitude was also found to have a positive direct impact on intention ($\beta_2 = 0.78, p \leq 0.01$). Therefore, *H2* theorizing the positive direct influence of attitude on intention was accepted. The R^2 value for the direct effect that explains variation in intention appeared to be 0.63. As 0.26 was defined as the threshold for large variance by McKenna *et al.* (2013), it provides a certain amount of support for the satisfactory predictive power of the model. After constraining for SMA and SMS, the variance on intention even improved up to 0.70. While the significant positive effects of fashion involvement on both TRI ($\beta_3 = 0.31\text{-}0.32, p \leq 0.01$) and attitude ($\beta_4 = 0.13, p \leq 0.05$) were detected in all the models, its impact on intention appeared to be nonsignificant. These results supported *H3* and *H4*, but did not support *H5*. *H6*, when considering the ability to modify self-presentation to moderate the influence of fashion involvement on TRI, was accepted ($\beta_6 = -0.14, p \leq 0.05$). Contrary to the expectation, it moderates the regarded relationship such that the effect was strongest for those who rated the ability scores as low. As for the moderating effect of sensitivity dimension considered in *H7*, the results here highlighted that (use noun) does not affect the relationship between fashion involvement and TRI ($\beta_7 = -0.03, p \geq 0.10$). Finally, ability

TRI 2.0	Measures	λ EFA	α	λ CFA	Composite reliability
Optimism	Mobile technologies contribute to a better quality of shopping	0.621	0.64	0.682	0.84
	Technology gives me more freedom of shopping mobility	0.806		0.826	
	Mobile technology gives people more control over their shopping	0.736		0.668	
	Mobile technology makes me more productive in shopping	0.751		0.807	
Innovativeness	Other people come to me for advice on new mobile technology	0.798		0.820	0.85
	In general, I am among the first in my circle of friends to acquire new mobile technology when it appears	0.664		0.761	
	I can usually figure out mobile shopping without help from others	0.785		0.736	
	I keep up with the latest developments in mobile technology	0.824		0.723	
Discomfort	When I get technical support from a provider of mobile shopping service. I sometimes feel as if I am being taken advantage of by someone who knows more than I do	0.747		0.689	0.75
	Technical support lines are not helpful because they don't explain things in terms I understand	0.801		0.745	
	Sometimes. I think that mobile technology is not designed for use by ordinary people	0.842		0.680	
	There is no such thing as a manual for a mobile shopping that's written in plain language **(DROPPED)**	–		–	
Insecurity	People are too dependent on mobile technology to do things for them	0.755		0.684	0.85
	Too much mobile technology distracts people to a point that is harmful	0.731		0.843	
	Mobile technology lowers the quality of shopping by reducing personal interaction	0.597		0.883	
	I do not feel confident doing business with a place that can only be reached online **(DROPPED)**	–		–	
Fashion involvement (FI)	I like to gather information about the current trend in some specific fields	0.612	0.83	0.602	0.88
	If I get the chance. I would like to try the activities in which the others are engaged	0.661		0.686	
	I would pay attention to the trend in society and have the courage to present myself as the trend	0.886		0.887	
	I would consider the social meaning of my behaviour before I proceed	0.870		0.858	
	I would try the present myself as the most up-to-date trends	0.818		0.829	
Attitude (ATT)	Using mobile phone for shopping is a good idea	0.891	0.90	0.897	0.94
	Using mobile phone makes shopping more interesting	0.923		0.915	
	Shopping through mobile phone is fun	0.919		0.921	
Behavioural intention (BI)	I intend to use mobile phone for shopping in future	0.882	0.92	0.689	0.86
	I would try to use mobile phone for shopping	0.953		0.745	
	I predict to use mobile phone for shopping in future	0.947		0.680	

Table II.
Convergent validity and internal consistency measures

and sensitivity dimensions did not appear to have a joint impact on the link between fashion involvement and TRI ($\beta_{FI*SMA*SMS} = 0.04, p \geq 0.10$).

6. Conclusion

This study presented an explanatory and quantitative investigation into the relationships between self-monitoring, fashion involvement and technology readiness in the mobile shopping context. The main motivation of the study was that there has been little research

Table III.
Discriminant validity

Constructs	BI	ATT	FI	TRI 2.0
BI	*0.92*			
ATT	0.79	*0.91*		
FI	0.24	0.22	*0.78*	
TRI	0.30	0.30	0.31	*1.00*

Note: Italic characters on vertical represent the square root of AVE scores

Table IV.
Mobil shopping readiness scores

TRI 2.0	Arithmetic mean	SD	Minimum	Maximum
Optimism	3.57	0.71	1.00	5.00
Innovativeness	3.24	0.77	1.00	5.00
Discomfort	3.17	0.71	1.00	5.00
Insecurity	4.38	0.59	1.00	5.00
TRI score	2.82	0.40	2.00	4.00

Note: TRI score = Optimism mean + Innovativeness mean + (6-discomfort mean) + (6-insecurity mean)

Table V.
Structural model tests

		D only		D + I		
No	Hypotheses	β	t	β	t	Supported
H1	TRI → ATT	*0.26****	*4.52*	*0.26****	*4.30*	Yes
H2	ATT → BI	*0.78****	*26.91*	*0.78****	*26.70*	Yes
H3	FI → TRI	*0.31****	*5.62*	*0.32****	*5.74*	Yes
H4	FI → ATT	*0.13***	*2.19*	*0.13***	*2.21*	Yes
H5	FI → BI	0.07	1.74	0.07	1.80	No
H6	SMA*FI → TRI			*−0.14***	*2.13*	Yes
H7	SMS*FI → TRI			−0.03	0.59	No
Other paths necessary to test moderating effects						
–	SMA → TRI	0.02	0.28	−0.01	0.12	No
–	SMS → TRI	0.01	0.05	−0.02	0.41	No
–	SMA*SMS → TRI			0.05	0.77	No
–	SMA*SMS*FI → TRI			0.04	0.64	No

Notes: Italic values: **significant at 0.05 and ***significant at 0.01; D Only: Direct Effects Only; D + I: direct effects and interaction terms; Greyed out cells are not applicable for the specific column; ATT + FI→BI **=>** $R^2 = 0.63$ (D only) vs $R^2 = 0.70$ (D + I); TRI + FI→ATT => $R^2 = 0.11$ (D only) vs $R^2 = 0.09$ (D + I); SMA*SMS*FI→TRI => $R^2 = 0.10$ (D only) vs $R^2 = 0.12$ (D + I)

conducted to examine this issue in a non-Western country. The study results yielded new insights for both theory and practice.

First, the psychometric properties and explanatory power of TRI 2.0 was tested in a mobile shopping context. However, the scale was found not to perform well in terms of validity, reliability and explanatory power. It thus established a foundation for further prospective research to investigate its psychometric properties using a more representative sample of the population of potential mobile shoppers rather than just a mere student sample. Second, young customers appear to perceive mobile shopping as insecure and uncomfortable. It seems that the concerns of potential mobile shoppers about network security, privacy protection, risk of transactions and uncertainty about after sale service still remain (Gao *et al.*, 2015; Persaud and Azhar, 2012).

Third, fashion involvement seems to be an important antecedent of TRI and attitude. A review of the literature on technology acceptance and use suggests a prevalent anchor of the social cognitive approach, which underscores the effects of social influence on the adoption decisions of end users (Venkatesh *et al.*, 2003). As stated before, those customers characterized as being highly involved in fashion trends form positive attitudes towards and inclined to purchase the products/services that deliver social prestige (Deeter-Schmelz *et al.*, 2000; Summers *et al.*, 2006). The main motivation for the early adopters of technological innovations was also to gain and/or maintain social status that same as the fashion pioneers wanted (Rogers, 1983, p. 215). Especially, younger customers were assumed as seeing mobile phones as a status symbol and considered buying a fashionable phone (Abeele *et al.*, 2014). Shang *et al.* (2005) argue that this same fact also was true for online shopping, which was perceived as a new style of life and socially appropriate behaviour. This finding suggests that practitioners should keep in mind addressing their young customers' need to belong to a group and enhance their self-identities through socially approved status symbols, as they formulate their own promotion strategies.

The other important contribution of this study is that the attitude-behavioural intention relationship was confirmed as a technology readiness context. Among the other constructs, attitude was found to be the strongest determinant of behavioural intentions to use a mobile shopping channel. According to Ajzen (2001), when the early stages of technology adoption wherein the customer's cognitions and emotions become a part of his/her understanding of new technology, the significance of attitude towards that adoption increases, which in turn influences the intention to adopt it. In a meta-study performed by Ingham *et al.* (2015), it was found that TAMs with an attitude construct included explained more of the variance in online shopping intentions than the TAMs without that attitude. Therefore, contrary to Venkatesh *et al.* (2003), attitude construct should be included in any technology readiness and acceptance research performed either for theoretical or practical purposes.

Finally, the significant positive effects of fashion involvement on mobile shopping readiness levels were observed in both models. This regarded effect seems to be moderated by the ability to modify self-presentation, such that it is more silent among those who score low on this dimension. This finding is not in line with Kim and Hahn's (2015) study, which reported the positive influence of the ability to modify self-presentation on fashion involvement in a mobile context. Further, the effect of fashion involvement on technology readiness was not found to vary across the sensitivity to the expressive behaviours of others. Much further research is still required to gain further insights into these contradictory findings, the variability of customer behaviour across cultures, the difference between the study participants and the use of self-monitoring scales that could possibly cause them.

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