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## Value-based Customers Satisfaction and Continuance Intention for Mobile Financial Services: the roles of Utilitarian, Hedonic, and Personal Values

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# **Value-based Customers Satisfaction and Continuance Intention for Mobile Financial Services: the roles of Utilitarian, Hedonic, and Personal Values**

## **Abstract**

“M-PESA” mobile financial service has remained a dominate player in the Kenya financial service market. This study presents a conceptual research model that is grounded in means-end theory. It connects customer value hierarchy to customer attitudes and post-adoption outcomes behavior. It aims to investigate the impacts of customer value in a hierarchical order on customer satisfaction and continuance use intention. When empirically validated, it will present a value-based framework for examining the influences of customer value on customer attitudes and behavior. The model presents both theoretical and practical implications for both academia and MFS providers and marketing managers.

Keywords: MFS, M-PESA, means-end theory, customer value hierarchy, utilitarian value, hedonic value, personal values

## **1.0 Introduction**

“M-PESA” mobile financial service (MFS), with a customer-base of over 23 million users, has continued to dominate the Kenya financial market (Omigie, Zo, Rho, & Ciganek 2017). Other players include Airtel with 5.9 million customers, Equitel with 2 million customers, and Mobikash with 1.8 million customers (Mobile World Live, January, 2017). These players compete and strive to deliver MFS with real value such as service quality, customization, convenience, and other intangibles that meet customer satisfaction, satisfy important personal goals and value, and encourage continued usage (Deng, Lu, Wei, & Zhang, 2010). This will help them to retain existing customers and attract new ones, increase their market shares, gain profitability, and facilitate long-term viability and survival of their service (Bhattacharjee, Perols, & Sanford, 2008).

However, the MFS providers may face difficulties regarding the types of services to provide, and the components of customer value to target so as to achieve customer satisfaction, and inspire outcomes behaviors (Stahl, Barnes, Gardial, Parr, & Woodruff, 1999). These value components would have to be extracted from other streams of literature prior, and assessed to ascertain their viability to convey higher-level outcomes of customer experience, influence the customers’ pre-adoption and post-adoption behavior, and provide useful clues for creating and delivering value-based mobile financial services (Thong, Hong, & Tam, 2006). The components of value that diminish after the initial use of a MFS, may hinder the realization of post-usage of the service because customers are not satisfied with the service. Consequently, this may affect the market shares and long-term profitability of the service.

Mobile financial service consists of mobile banking services and Mobile payment services (Lee, Park, Chung, & Blakeney, 2012; Tiwari, Buse, & Herstatt, 2007). In this paper, mobile financial service (MFS) refers to mobile phone-based financial (or mobile money) service. Mobile phone-based financial service is a MFS that is based on short messaging service (e.g. PayPal and M-PESA), near field communication (e.g. VIVOtech) and unstructured supplementary service data (e.g. M-PESA) system (Au & Kauffman, 2008; Lerner, 2013).

Several literature exists on mobile financial service adoption and acceptance (Omigie, et al., 2017; Thakur & Srivastava, 2014), business model (Pousttchi & Hufenbach, 2012), regulatory and contracting issues (Kemp, 2013), but few exist on post-adoption of MFS (Yu & Fang, 2009; Zhou, 2013), and none exist on MFS instrumental and terminal values (Omigie, Zo & Rho in process).

However, most of these studies utilized attitude and adoption models such as technology acceptance model, innovation diffusion theory, diffusion of innovation theory, elaboration likelihood model, self-service technology attitude/intention to use model, task technology fit, theory of planned behavior, unified theory of acceptance and use of technology, information system success model, ubiquitous computing framework, benefit cost framework, Rasch measurement model, self-developed model (Shaikh & Karjaluo, 2015). But our study extends the means-end theory and customer value hierarchy to examine value-based customer satisfaction and continuance intention toward mobile financial service (Gutman, 1982, 1997; Robert B. Woodruff, 1997).

MFS is one of the cardinal drivers of financial inclusion in developing countries. Low-income customers and large segment of under-banked and un-banked population utilize mobile financial service to receive and send money, pay for goods and services, and access credit and insurance services (Mazer & Rowan, 2016). Also, the utilization of MFS in the banking, commerce, healthcare, agricultural, transportation, insurance, and government sectors have steadily increased (Donovan, 2012).

Prior studies have established the significant effects of customer value customer attitudes and behavior toward mobile services ( Omigie et al., 2017; Carlson, O’Cass, & Ahrholdt, 2015; Hau & Thuy, 2012; Kuo, Wu, & Deng, 2009). Current study builds on these existing literature in marketing and psychology research to examine the impacts of higher-level of MFS perceived value and personal values on customer satisfaction and continuance intention toward mobile financial services, by identifying desired value attributes of mobile financial service, the higher-level consequences of the performance of these value attributes at higher-level of abstraction, and their impacts on customer attitudes and post-adoption outcomes behavior (Woodruff & Gardial, 1996).

Customers’ choices, actions and corresponding behaviors are goals and value-motivated, and the means-end theory and the customer value hierarchy helps to understand the impacts of higher-level goals and values on customer attitudes and outcomes behaviors (Gutman, 1982, 1997; Woodruff, 1997; Stahl et al., 1999). This is because customers perceive higher customer value if the use of a MFS provides desirable outcomes, which ultimately leads to customer satisfaction and favorable outcome behaviors. Customer value hierarchy proffers better understanding of the means-end theory by focusing more comprehensively on customers’ value perception than on just the narrow views of service attributes, and on the higher-level value outcomes of using a service (Sanchez-Fernandez & Iniesta-Bonillo, 2007). It is rational to infer that the choice and action to use a mobile financial service follows a customer value hierarchy in a means-end fashion.

This study conceptualizes a model that is grounded on means-end theory by connecting customer value hierarchy of MFS to customer satisfaction and continuance intention. The model will empirically examine the impacts of the lower-level desired value attributes (i.e. *excellence, monetary, transaction and safety, aesthetic, symbolic, experiential, social affiliation, and self-actualization values*) as formative components of the higher-level desirable value consequences (such as *utilitarian and hedonic, and personal values*) (Ruiz, Gremler, Washburn, & Carrión, 2008; Sanchez-Fernandez & Iniesta-Bonillo, 2007), and the effects of these desirable outcomes on customer satisfaction and continuance intention, as well as the impacts of customer satisfaction on

continuance intention as a direct and mediating determinant. We shall adopted repeated indicator technique (Afthanorhan, 2014), and utilize Smart PLS 3.0 and data from M-PESA customers to empirically validate our model.

The findings will present important implications for MFS providers by equipping them with relevant strategic tools to effectively and advantageously reposition their financial services to meet customer satisfaction, and continuous patronage. Besides, it will provide the academia with the understanding of the impacts of customer value abstraction on customer satisfaction and continuance intention toward MFS in a hierarchical order. Finally, it will simplify the roles of customer value hierarchy in linking the means-end theory to customer attitudes and outcome behavior in the post-adoption stage.

## **2.0 Literature Review and hypotheses development**

### *2.1 The Means-end theory*

The Means-end theory provides a value-based integrated framework that hierarchically connects a product or service and its attributes through desirable outcomes to higher-level goals or value that in turn influence customers' choice behavior accordingly (Gutman, 1982, 1997). The means-end theory (MET) posits that customers' choices to use any service follow learning processes influenced by the service and its attributes, the attributes performance, and the desirable outcomes produced by reason of their abilities to facilitate the realization of desired goals or value in use situation (Robert B. Woodruff, 1997). The theory helps to explain the relationship between the perceived value or personal values to attitudes and behavior (Hsiao, Ju & Li, 2012; Yang & Chang, 2012). The central focus of this theory is that customers' behaviors are goal/value-motivated. And customers use service attributes as means to realize their motives, value, and desired end states, which in turn influence consumption and use behavior (Barrena & Sanchez, 2013).

Zeithaml, (1988) utilized MET to examine the relationships that exist between perceived quality, perceived price and perceived value. She argues that value represents a higher-level abstraction/concept because it's individualistic and personal. Woodruff & Gardial, (1996) extended the MET to conceptualize customer value hierarchy (CVH). The framework examines value in a broader context, and as higher-order outcomes experienced when a product or service is used. The CVH recognizes that value is represented in a hierarchical order of attributes, consequences, and desired end states. The lower-order value attributes serve as means of realizing the higher-order value consequences, while the level of abstraction and stability increase along the hierarchy. Chiu, Wang, Fang, & Huang, (2014) argue that customers use products and services not only because of their attributes but also for the benefits and value they convey. These benefits and value represent the higher order goals that motivate customers' choice behavior. They argue it's reasonable to ignore the lower order attributes and adopt the higher order benefits and values as means to understand customers' behavior in any context. Flint, Woodruff, & Gardial, (1997) extended MET to conceptualize a value change framework that links customer perception of value (values, desired value, and value judgments) to customer satisfaction. Values are personal goals, desired value is what customers want to happen, and value judgment is what has happened. In a means-end hierarchy, it is reasonable to consider values and desired value as lower-order value attributes, and value judgment as higher-order value consequences because value judgments is based on a customer's perception of product or service performance in

use situation. Woodruff, (1997) argues that desired value is created in hierarchical order, with each layer of abstraction - attributes, consequence and goal – having the ability to stimulate satisfaction during and after use. The lower-order value attributes in the hierarchy represent the characteristic of the service. Higher up are outcomes and goals that make those attributes desirable and relevant to the customers.

Based on these literature, it is reasonable to link lower-order value attributes of mobile financial service through formative higher-order value consequences to customer satisfaction and continuance intention because of the greater inclusiveness (degree of similarity) between the lower-order and higher order value (Woodruff & Gardial, 1996).

## *2.2 Continuance intention*

In this study, continuance intention is defined as customers' choices and decisions to continue to use mobile financial service in the post-adoption stage. Post-adoption behavior is important for the continued success, survival, and long-term viability of a MFS. It provides cheap cost of retaining existing customers (Bhattacharjee et al., 2008), and suggests that customer will continue to use and recommend M-PESA to others.

## *2.3 Customer satisfaction*

Customer satisfaction is the judgment that a MFS or its attributes provide pleasurable experience that is fulfilling when the service is used. It serves as an indicator to evaluate fulfilled experiences formed in response to use behaviors toward MFS (Oliver, 1993; Oliver and Desarbo, 1998). Customer satisfaction is positive or negative feeling that a customer has about the value they receive for using MFS (Woodruff & Gardial, 1996). It signals an attitude change resulting from use experience that M-PESA service meets customers' expectation and gives them satisfying experience, thereby confirming how please they are using the service (Anol Bhattacharjee, 2001; Spreng & Olshavsky, 1993). Customer satisfaction has been shown to influence continuance intention toward mobile payment (Zhou, 2014), mobile instant messaging services (Oghuma et al., 2016) and massive open online course (Alraimi, Zo, & Ciganek, 2015). Thus,

*H1: customer satisfaction positively influences customers' continuance intentions*

## *2.4 Customer MFS Value (perceived and personal)*

Customer value is a key driver of customer decision-making process, attitudes and behavior (Omigie et al., 2017). Customer value is the perception of what a customer wants to happen (i.e. the consequences) in specific use situation with the help of a product or service offering to actualize desired purpose or goals (Stahl et al., 1999). Every choice and decision to use a mobile financial service is partly guided by the fulfillment of perceived value (like utilitarian and hedonic) and personal values (Ahtola, 1985; Rosenberg, 1956). For example, a customer may earn extrinsic (utilitarian) value like monetary value for using a mobile financial service, and simultaneously gets more intrinsic (hedonic) value like experiential value, and personal values like family safety, and funs.

Perceived value is judgment based on preference; it is evaluated based on customers' perceptions of use experience (Holbrook, 2005), i.e. customers think about value of service based on desired value and received

value (Woodruff, 1997). Personal values are important personal beliefs that customers hold about themselves, and the goals they seek to satisfy. Personal values guide customers' behavior, preferences, and judgment (Rokeach, 1973).

Customer MFS value is operationalized as an integrated model comprising MFS perceived (utilitarian and hedonic) value and MFS personal values. The perceived value constructs include excellence (Chahal & Kumari, 2012), transaction (Grewal, Monroe, & Krishnan, 1998), aesthetic and monetary (Omigie et al., 2017), safety, experiential, symbolic (Smith & Colgate, 2007), and utilitarian and hedonic value (Chiu et al., 2014), while those of personal values include personal (Rokeach, 1973), self-actualization and social affiliation (Koo, Kim, & Lee, 2008), values.

In this study, customer MFS values is defined as customer perceived preference for, and the evaluation of mobile financial service value attributes, value attributes performance, and value consequences, and the attainment of customer personal values in specific use situation (Woodruff, 1997), and their abilities to hierarchically meet customer satisfaction and encourage continuance intention.

## 2.5 MFS utilitarian value

Utilitarian value reflects extrinsic utility of using a mobile financial service, and represents an outcome resulting from customers' conscious pursuit of an intended consequences (Babin, Darden, & Griffin, 1994). Utilitarian value is the functional, instrumental, task-related, service-oriented, rational, cognitive attributes that are linked to the basic use motivation such as meeting psychological and safety needs – i.e. a means to an end (Sanchez-Fernandez & Iniesta-Bonillo, 2007). In this study, *MFS utilitarian value* is operationalized as a formative higher-order value consequences consisting of *excellence* (Holbrook, 2005), *monetary* (Omigie et al., 2017), *transaction* (Grewal et al., 1998), and *safety* (Smith & Colgate, 2007) value. It represents the functional benefits obtained from the task-related attributes performance of excellence, monetary, transaction and safety value of MFS. These variables influence the higher-order utilitarian values of using a mobile service (Wetzels et al., 2009).

### 2.5.1 Excellence value

Excellence value is the ability of a MFS to perform its function well in all situations (Holbrook, 2005). It is a utilitarian value that evaluates customer perception of quality of a MFS obtained for using the service. Excellence value suggests the reactive responses of service providers to their customers in a bid to make them understand the ability of their service offering to provide a means to a self-oriented end (Mathwick, Malhotra, & Rigdon, 2001).

The perception of excellence of a MFS enhances customer satisfaction (Zeithaml, 1988), suggests that M-PESA possesses excellent quality, and Safaricom (i.e. the service provider) possesses the expertise to deliver excellent MFS (Mas & Ng'weno, 2009). Excellence value conveys higher-order utilitarian value (Wetzels et al., 2009).

### *2.5.2 Monetary Value*

Monetary value is the monetary benefit of using a MFS to send money, pay bills, and pay for goods and services. Monetary value is utility obtained from comparison of what is received to what is given (Zeithaml, 1988). Monetary value is a utilitarian benefit in the form of value for money, economic value, low price, and reasonable charges of using a MFS. It conveys utilitarian values at higher-order (Wetzels et al., 2009), and suggests that customers receive value for their money, and are reasonably charged for using M-PESA service (Omigie et al., 2017).

### *2.5.3 Transaction Value*

Transaction value is perceived psychological satisfaction or pleasure received in form of a good deal for using a MFS (Parasuraman & Grewal, 2000). Transaction value is usually relevant during and immediately after a service is purchased or subscribed, and places a dynamic effect on perceived utilitarian value; and suggests efficient transaction that customer received in the form of psychological satisfaction of using a service delivery process (Chahal & Kumari, 2012).

Transaction value differs from monetary value. It represents the worth of a service and a good “deal” resulting from the difference between the actual price of a service and its reference price. If the reference price of a service is less than its actual price the transaction value is negative, but if the reference price is more than the actual price, the transaction value is positive. Therefore the satisfaction and pleasure that arise from this transaction is the transaction value.

Mobile payment transaction activities require that service providers inform customers of every financial transactions, account balances, and confirmations of payment (Kim, Mirusmonov, & Lee, 2010). Besides, utilitarian activities such as connectivity, authentication, authorization, transaction activities, and confirmation of complete transaction that are undertaken to complete a mobile payment process enhance transaction value (Shon & Swatman, 1998). This in turn increases both utilitarian and hedonic benefits such as safety and pleasure of using the service (Turel, Serenko, & Bontis, 2010).

### *2.5.4 Safety Value*

Safety value is utilitarian utility that is linked to basic use motivation such as safety needs (Keller 1993). Safety value suggests that a MFS is secured and free from potential danger or fraud, and that customers’ personal privacy and information about their transaction activities are protected and secured (Mbogo, 2010). Safety value helps to increase customers’ sense of safety, beliefs, and confidence about a MFS and its delivery channel (Smith & Colgate, 2007). Information about service safety attributes enhances information quality (Alba et al., 2017), and information quality influences the utilitarian value of a service or system (Kim & Oh, 2011). M-PESA service is safe and reliable to use (Mbogo, 2010) and should have been designed with adequate security features such as confidentiality, authentication, data integrity, and non-repudiation of transaction (Shon & Swatman, 1998). These features provide adequate security and confidentiality for all mobile payment transactions.

## 2.6 MFS Hedonic value

Hedonic value indicates the intrinsic benefits of using a mobile financial service. It represents the outcomes arising from spontaneous hedonic responses that capture the basic duality of reward for customer behavior. Hedonic value of a MFS refers to symbolic, aesthetic, and experiential aspects of consumption; it is more subjective and personal than utilitarian value (Babin et al., 1994; Ladeira et al., 2016). Hedonic value suggests increased arousal, heightened involvement, perceived freedom, fantasy fulfillment, and experiential, non-instrumental, affective, worth of MFS, or associated with using the service (Sanchez-Fernandez and Iniesta-Bonillo 2007).

In this study, *MFS hedonic value* is operationalized as a formative higher-order consequences comprising *aesthetic* (Omigie et al., 2017), *symbolic, and experiential value* (Hur et al., 2010), and convey higher-order hedonic value (Wetzels et al., 2009). Therefore, hedonic value is the psychological benefits obtained from the pleasure-related attributes performance of aesthetic, symbolic and experiential value of MFS (Ladeira, 2016).

### 2.6.1 Symbolic Value

Symbolic value addresses the extent to which a customer derives psychological, social, cultural and ethnical benefits (Smith & Colgate, 2007) for using a MFS. Symbolic value is utility obtained to satisfy internally generated needs such as the desire to feel a sense of self-concepts, self-attainment, and self-worth, self-enhancement, and image projection (Hur et al., 2010), or utility obtained for associating with a service, or being defined by using a service (Park, Jaworski, and MacInnis, 1986). Services are evaluated and adopted based on their symbolic qualities (Solomon 1983).

M-PESA service is designed with some symbolism that promotes Kenya national identity, language and lifestyle. For instance, the name “M-PESA” (“M” for “mobile”, “PESA” for “money”) (Omigie, Zo, Rho and Ceganek 2017) conveys symbolic value that promotes the Swahili language. Also, M-PESA Chama promotes Kenyan culture, and customers utilize the service to make contributions for Harambees, and other development projects ([www.safaricom.co.ke](http://www.safaricom.co.ke)). It is reasonable to assume that M-PESA service is perfect for the customers’ lifestyle, promotes customers beliefs, culture, values, and national identity, as well as makes life easier for them (e.g. Hur et al., 2010).

### 2.6.2 Experiential Value

Experiential value is utility that the use of a MFS conveys to fulfill hedonic needs such as sensory pleasure, emotional needs, social relational needs, and epistemic needs and cognitive stimulus (Park et al., 1986, p. 136; Keller, 1993; Hur et al., 2010). This utility is a feeling of happiness or pleasure obtained during and after the process of making mobile payments, mobile purchases, or mobile fund transfers (Smith & Colgate, 2007). Also MFS provides experiential benefits through efficient interactivity, seamless aesthetic, and information symmetry among the service, the service provider, and the customers (Wu and Liang 2009).



### 2.6.3 Aesthetic value

Aesthetic value is a feature of mobile financial service that arouses emotion and visual appeal (Sheth et al., 1991). Aesthetic value is utility such as feeling of attraction conveyed by visuals. It is an appeal that comes from the artistic designs and physical attractiveness of a service brand. Aesthetic value represents the tangible feature of service quality and the intrinsic feature of service excellence (Holbrook, 2005). The aesthetic value of M-PESA includes attributes of visual attraction, such as M-PESA apps aesthetic, color and brand logo, and they strongly influence customer pre-adoption choice behavior for the services (Omigie et al., 2017). Aesthetic value is both component and conveyor of hedonic of value at higher-order (e.g. Turel, Serenko and Bontis 2010; Wetzels et al., 2009).

### 2.7 MFS personal values

Personal values consist of terminal (or self-actualization) and instrumental (or social affiliation) values (Rokeach 1973; Shim and Eastlick 1998). *Terminal* (or *self-actualization*) values are desired end-states of existence. They are beliefs that customers have about the goals they strive to actualize (e.g. peace of mind). *Instrumental* (or *social affiliation*) values (e.g. funs) are desired modes of action that convey customers' beliefs about the ways to realize terminal (self-actualization) values (Rokeach 1973; Lai 1995; Shim and Eastlick 1998).

In this study, *MFS personal values* is operationalized as a formative higher-order values consequences comprising *self-actualization* and *social affiliation values*. Personal values such as self-actualizing and social affiliation values have been investigated to hierarchically influence customer shopping attitude and behavior (Shim and Eastlick 1998), and online shopping re-patronage intention (Koo, Kim & Lee 2008).

### 2.8 Relationship between MFS perceived and personal values, and customer satisfaction and continuance intention

Utilitarian, hedonic, and personal values have been investigated to influence customer satisfaction and outcomes behaviors. Kim and Oh (2011) confirm that utilitarian and hedonic value strongly influence continued usage intention towards mobile data service, while only utilitarian value significant influences behavioral intention. This difference in results is moderated by prior experience. Pöyry et al., (2013) prove that both utilitarian and hedonic motivation influence browsing behavior, which in turn mediate their impacts on customer purchase, referral, and continuance intention. However, only utilitarian motivation impacts on customer desire to participate in online exchange activities. Chiu et al., (2014) empirically show that utilitarian and hedonic value influence repeated purchase intention towards e-commerce system and services at higher-order, while Ladeira et al., (2016) show that only hedonic product value influences customer satisfaction because of the pleasurable performance that the product attributes exhibit.

Thuy & Hau (2010) show that service personal values and service value at higher-order strongly and moderately influence customer satisfaction and loyalty toward banking service. Darvasula et al., (2011) prove that service personal values at higher-level influence service satisfaction, loyalty, and re-purchase, and

recommendation intentions toward firm service.

We assume based on prior literature that at higher-order of value consequence, desirable MFS utilitarian, hedonic, and personal values will facilitate the realization of customer satisfaction, or post-adoption outcomes behavior, or both (Stahl, et al., 1999). Thus,

*H2a: MFS Utilitarian value positively influence customer satisfaction*

*H2b: MFS utilitarian value positively influence continuance intention*

*H3a: MFS hedonic value positively influence customer satisfaction*

*H3b: MFS hedonic value positively influence continuance intention*

*H4a: MFS personal values positively influence customer satisfaction*

*H4b: MFS personal values positively influence continuance intention*

### **Integrated Research Model**

Figure 1 is an integrated research model linking lower-level value attributes and higher-level value consequences (value hierarchy) to customer satisfaction and continuance intention in a means-end fashion.

## Customer Value Hierarchy

Lower-level value attitudes

higher-level value consequences

Attitude

Outcome behavior

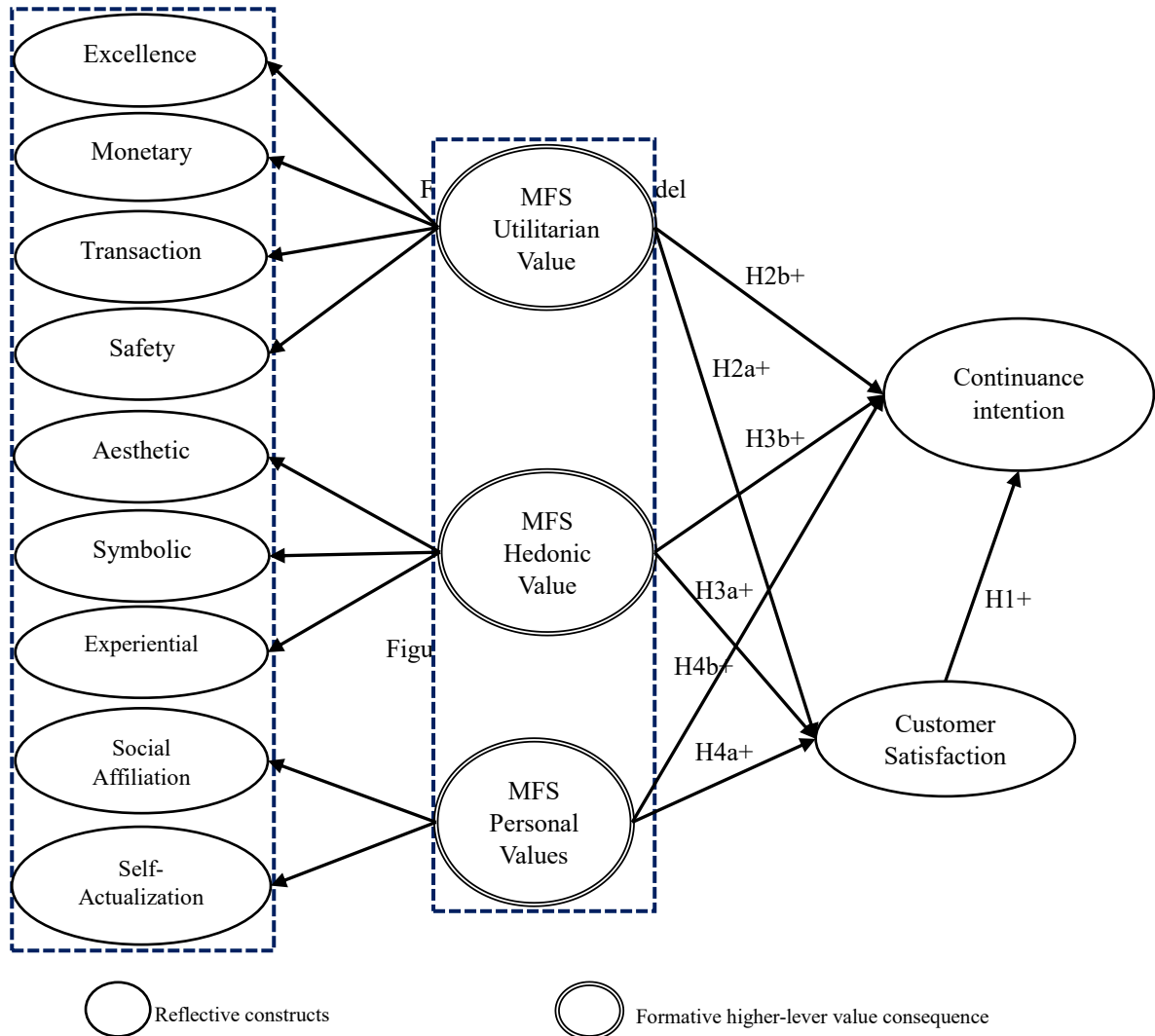


Figure 1. Proposed Research Model

### Conclusion

In this paper, we present the proposed model of a research in progress. The model is grounded on the means-end theory (MET) and customer value hierarchy. It connects customer value hierarchy of MFS to customer satisfaction and continuance intention. The model is needed to empirically examine the impacts of the lower-level desired value attributes (such as *excellence, monetary, transaction and safety, aesthetic, symbolic, experiential, social affiliation, and self-actualization values*), as formative components of the higher-level desirable value consequences (such as *utilitarian and hedonic, and personal values*) (Ruiz, Gremler, Washburn, & Carrión, 2008;

Sanchez-Fernandez & Iniesta-Bonillo, 2007) in a hierarchical order, and the effects of these desirable consequences on customer satisfaction and continuance intention, as well as the impacts of customer satisfaction on continuance intention as a direct and mediating determinant.

The model will explain the variance of customer satisfaction and continuance use intention, and consequently present a useful framework for analyzing the determinant of customers' attitudes and outcome behavior in mobile financial services context. It is hoped that the results of the analysis will suggest that the performance of all the nine lower-level value attributes conveys higher-order value consequences as conceptualized. The higher-order value consequences will facilitate the realization of customer satisfaction and continuance use intention, and customer satisfaction leads to continuance use intention. The results will present implication for academia and practice, and for future research.

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