# An Empirical Examination of the Relation between Consumption Values, Mobil Trust and Mobile Banking Adoption

Murat Burucuoglu<sup>1</sup>, Evrim Erdogan<sup>2</sup>

<sup>1</sup>Departmant of Management and Organization, Ondokuz Mayis University, Turkey

<sup>2</sup>Department of Business, Faculty of Economics and Administrative Sciences, Ondokuz Mayis University, Turkey

Correspondence: Murat Burucuoglu, Department of Management and Organization, Alacam Vocational School, Ondokuz Mayis University, Alacam, Samsun, Turkey. E-mail: murat.burucuoglu@omu.edu.tr

Received: September 7, 2016	Accepted: September 29, 2016	Online Published: November 23, 2016
doi:10.5539/ibr.v9n12p131	URL: http://dx.doi.org/10.553	9/ibr.v9n12p131

# Abstract

The purpose of this study is to examine the relations among consumption values of the consumers relevant to mobile banking services, adoption to mobile banking and mobile trust. For this purpose, we propose a structural model which demonstrates the relations between consumption values, mobile banking adoption and mobile trust of consumers. The data had been collected through survey applied on individuals who are using mobile banking services in Turkey. It had been reached to 175 participants in total. The obtained data had been analyzed by partial least squares path analysis (PLS-SEM) which is known as second generation structural equation modeling. As the result of the research, it had been concluded that the conditional value, emotional value and epistemic value –from among consumption values- have positive and statistically meaningful effect on adoption to mobile banking, and that the social value has negative and statistically meaningful effect. It is being observed that there is positive and statistically meaningful effect. It is and conditional value, emotional value and functional value. And there are positive and statistically meaningful relations on trust relevant to mobile banking and adoption to mobile banking.

Keywords: mobile banking, consumption values, m-trust, mobile banking adoption

# 1. Introduction

Self-service technologies, which had emerged by the fast development of the technology, had caused the rise of new conditions in between the enterprises and customers. Along with the development of self-service technologies, the customers have become both the producer and user of the service they get (Li, 2013). And the banks, by keeping pace with the changing conditions, have formed new channels such as ATM, internet banking and mobile banking for their customers (Laukkanen & Pasanen, 2008). Along with the development of mobile technologies and mobile devices, the mobile banking has started gain a significant seat within the banking industry due to its characteristics such as interactivity, ease and availability everywhere provided by the mobile technologies (Gu, Lee & Suh, 2009).

The increase of the use of smart phones as a part of the daily lives of the consumers has increased the popularity and use mobile applications. The rise of various mobile applications by the integration of technology within commercial life is enabling the consumers to easily use such applications in their daily lives, shopping and financial transactions. The number of services provided by mobile banking is increasing, and the technical problems are decreasing. All these developments have an effect that increases the use of mobile banking applications.

While a part of the consumers are quickly adapting the new technologies in banking industry, it is being understood that a part of them are encountering adoption and trust problems (Wang, Lin & Luarn, 2006; Chung & Kwong, 2009; Koo & Wati, 2010). This fast development has directed the banking industry to determine the factors that are limiting use of mobile banking services by the consumers and that may increase the use of these applications. In this study, it has been searched how the dimensions consisting the Consumption Values Theory affect the adoption of consumers to mobile banking and the trust of consumers towards mobile banking.

## 2. Theoretical Backgrounds

Mobile banking had provided its first service by the end of 1990s with the cooperation of German company Playbox and Deutsche Bank (Shaikh & Karjaluoto, 2015). Mobile banking is being defined as realizing the interaction in between the bank and the customer through mobile phones, personal digital assistants (PDA), and other tools except smart phones and computers (Barnes & Corbitt, 2003; Tobbin, 2012). In mobile banking, the users are able to realize writing cheques, account transactions and various payments by using the internet baking on their mobile tools (Lee & Chung, 2009).

Several recent studies have focused on evaluating the impact of e-commerce and mobile banking adoption on daily business practices of the firms (Aboelmaged & Gebba, 2013; Riasi & Pourmiri, 2015; Qu, Pinsonneault, Tomiuk, Wang & Liu, 2015; Tran & Corner, 2016; Hanna, 2016). Recent improvements in technology have led to changes the interactions between consumers and banks. Banks are continuously producing innovative banking services to meet consumer needs and expectations. Due to increase the flexibility and mobility of the financial services, mobile banking application has been recently seen as promising development in financial service (Tran and Corner, 2016). According to the research of Juniper Research; the mobile phone devices is forecast to reach two billion users by the end of the 2020. This rate will present %37 of the global adult population. The forecast indicates that the mobile banking will be a huge market

(https://www.juniperresearch.com/press/press-releases/mobile-banking-users-to-exceed-1-bn-this-year).

Mobile baking adoption is closely related with the acceptance process of the technology by the consumer. And mobile banking adoption may be specified as the intentions of the customers to use mobile banking services, their adoption of mobile banking and their willingness for using mobile banking. In literature, there are many studies examining the factors affection the adoption of mobile banking (Luarn & Lin, 2005; Gu et al., 2009; Akturan & Tezcan, 2012; Laukkanen & Pasanen, 2008; Li, 2013; Ying & Can, 2010; Tobbin, 2012; Shen, Huang, Chu & Hsu, 2010; Cudjoe, Anim & Nyanyofio, 2015; Saeed, 2011; Hanafizadeh, Behboudi, Koshksaray & Tabar, 2014). The variables which is commonly studied in mobile banking adoption models are perceived ease of use, perceived usefulness, performance expectancy, relative benefits of the mobile banking and trust (Oliveria, Faria, Thomas & Popovic, 2014). In this study, consumption values and trust variables are being used in the research model to explain the consumer mobile banking adoption.

The "value" concept is being used as a variable affecting the consumer mobile banking adoption different from the current common literature. Perceived value concept helped in explaining consumers decision making behaviors for years. Also many studies use perceived value and technology adoption relation to explain better understanding consumer technology adoption (Turel, Serenko & Bontis, 2007; Kim, Chan & Gupta, 2007; Kleijnen, De Ruyter & Wetzels, 2007; Liu, Zhao, Chau & Tang, 2015). Turel et al. (2007) stated that perceived value can be used to explain the consumer technology adoption in connection with the cognitive structure of technology adoption. Perceived value has a unidimensional and multidimensional structure (S ánchez-Fern ández & Iniesta-Bonillo, 2007; Karjaluoto, Jayawardhena, Leppaniemi & Pihlström, 2012). Consumption Value Theory is one of the multidimensional models of perceived value.

Consumption Values Theory developed by Sheth, Newman & Gross (1991a; 1991b) is consisting the theoretical basis of this study. The marketing literature, consumption values and benefit are being defined as factors established on creating value and customer loyalty, and determining the procurement decision and the use of products and services in the future (Pura, 2005). Before making explanations relevant to consumption values theory, it will be beneficial to define what the value means for the consumer. Value, in respect of the consumer, is being defined as the general assessment of the consumer regarding the benefits obtained from the products and services considering the things given and obtained by the consumer (Zeithaml, 1988). In this definition, Zeithaml (1988) deems the value perception of the consumer relevant to a product or service as the combination of costs assumed in obtaining the product or service and of the benefits gained after obtaining. And in this study, value has been defined based on the definition of Zeithaml (1988) as general assessment of the consumers regarding the benefits obtained by the use of mobile banking services.

Sheth et al. (1991a; 1991b), by the Consumption Values Theory they had developed, are specifying that the preferences of the consumers is a function of the consumption values. According to Consumption Values Theory, the preference decisions of the consumers are realizing as being affected from five consumption values as being functional value, emotional value, social value, conditional value and epistemic value. This theory is able to be applied on many preferences of the consumers as from consumer nondurables to services.

Why the consumers purchase a product or why they don't purchase a product, why they prefer a type of product and why they prefer a brand over the other consist the focus point of the consumption values theory (Sheth et al.,

1991a). Consumption Values Theory is based on three basic assumptions while examining the preference behaviors. These are in the form that the preferences of the consumers is a function of the multiple consumption values, that the contribution of each consumption value may be different in each preference decision, and that the consumption values are independent from each other (Sheth et al., 1991b).

Some limitations are required to be considered in the implementation of the Consumption Values Theory. The theory is able to be applied in personal decision making conditions, and in their systematic and voluntary preferences. More clearly, the theory examines the behaviors in which the consumers are not being obliged to make a preference and in which they are not obliged to use a product or service that some other selects for him and that consist of their voluntary preferences (Sheth et al., 1991a).

When banking and banking transactions are in subject, trust is coming to the forefront as one of the main factors affecting the behaviors of consumers. Trust has descriptions that differentiate from each other in literature depending on different research fields such as sociology, social psychology, psychology and marketing (Papadopoulou, Andreou, Kanellis & Martakos, 2001; Suh & Han, 2002). Fukuyama (1995) defines trust as cooperative behaviors of others and reliability expectation that affect the economic performance of a country. Trust may be deemed as the basis of any business or personal interaction. The enterprises or individuals require trusting the government or the institutions that they are a party of (Aksoy, 2012). Trust is being deemed as a basic factor in establishing long-term relations with the consumers and in maintaining it (Sharma & Patterson, 2000). And the thing being referred in this study is relevant to the fact that trust is the consumer's certainty about the supplier. Actually the trust felt towards mobile banking along with being a part of the trust felt by the consumers towards the bank, and along with the trust that the consumers feel towards electronic banking and the trust that the consumer feels towards the bank being related, it cannot be said that they are being assessed within the same frame. Because many consumers are able to remain loyal due to their trust towards their bank, but they are able to stay distant to technology based new applications of the bank.

Chung and Kwon (2009) specify that trust is an effective factor in mobile banking. Mobile banking may face difficulties in gaining the trust of the customers compared to internet banking due to constraints arising from a narrower display, slow pace and limited information presentation. In order to overcome these difficulties, the banks are required to be more objective and reliable in mobile banking services. And another difficulty in establishing trust in mobile banking is the change of trust against mobile banking as per time. And this problem is arising from lack of establishment of face-to-face relation with the customers.

# 3. Conceptual Framework and Hypotheses Development

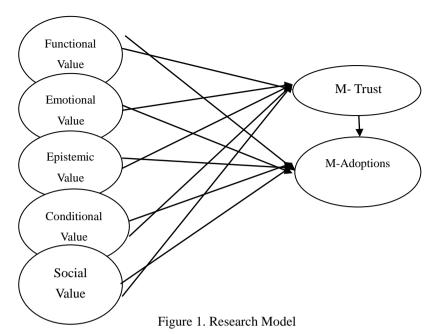
### 3.1 Consumption Values Relevant to Mobile Banking Services

In the consumption values theory developed by Sheth et al. (1991a; 1991b), there are five consumption values affecting the preferences of the consumers. These values are functional value, emotional values, social values, conditional value and epistemic value. The consumption values theory has been used in many studies in marketing literature (see. Finch, 2006; Lin, Huang & Wang, 2010; Lin & Huang, 2012; Punj, 2011; Peng, Chen & Wen, 2014; Wang, Liao & Yang, 2013; Bolker, Gimpel & Hedman, 2009).

Bolker et al. (2009) had examined the experiences of smart phone users with the consumption values theory, and had concluded that all five consumption values have significant contributions to explain and understand the consumer experiences. McManus & Standing (2004), in their study realized to understand the mobile trade adoption and its reasons, suggest that consumption values theory and five sub-values of this theory may be used.

The functional value is being deemed as a significant value affecting the preferences of the consumers (Sweeney & Soutar, 2001). The functional value is being defined as the value arising when the products and services fulfill their functional, beneficial and physical purposes, and functional value is relevant to the performance, reliability, durability and price of the product and service (Sheth et al., 1991a; 1991b). There are studies regarding that the functional value affects the information technology systems (Tzeng, 2011), mobile services (Pura, 2005, Turel et al., 2007), use of mobile applications (Wang et al., 2013), and use of mobile banking services (Goh, Suki & Fam, 2014). Considering the studies performed, the hypothesis regarding functional value has been developed as follows.

H1: Functional value affects consumers' mobile banking adoptions.



Social value specifies the dimension of value relevant to the one or more social groups that the consumer is in relation with. Social value consists of the perceptions of demographic, socio-economic, cultural and ethnical groups stereotyped as positive or negative in the society in which the consumer lives (Sheth et al., 1991a; 1991b). There are studies in the direction that social value affects use of mobile services (Tang & Foster, 2007; Yang & Jolly, 2009), use of mobile applications (Wang et al., 2013) and use of mobile banking services (Goh et al., 2014). Considering the studies performed, the hypothesis regarding social value has been developed as follows.

H2: Social value affects consumers' mobile banking adoptions.

Regarding emotional value, one of the factors motivating the customers in preferring the products and services and in establishing connection with them is emotions (Levy & Hino, 2016). It is related with the ability of product and service to mobilize the affections or emotions. In other words, it is the value dimension relevant to emotions caused by the product or service in the consumer (Sheth et al., 1991a; 1991b). There are studies in the direction that emotional value is effective in the use of mobile services (Yang & Jolly, 2009; Turel, Serenko & Bontis, 2010; Tang & Foster, 2007), in the use of mobile applications (Wang et al., 2013), and in the use of mobile banking services (Goh et al., 2014). Considering the studies performed, the hypothesis regarding emotional value has been developed as follows.

H3: Emotional value affects consumers' mobile banking adoptions.

Regarding epistemic value, it is being defined as the value dimension gained by the ability of the product or service to arouse curiosity, bring in innovation and satisfy the knowledge need (Sheth et al., 1991a; 1991b). There are studies in the direction that epistemic value affects use of mobile services (Tang & Foster, 2007; Tzeng, 2011), use of mobile applications (Wang et al., 2013) and use of mobile banking services (Goh et al., 2014). Considering the studies performed, the hypothesis regarding emotional value has been developed as follows.

H4: Epistemic value affects consumers' mobile banking adoptions.

Regarding the conditional value, it means the value dimension gained by the special conditions which the consumer faces in a case of decision making. The obtained benefit is frequently relevant to the condition involved (Sheth et al., 1991a; 1991b). Wang et al. (2013) had concluded in their study that consumption values play intermediacy role in the relation in between conditional value and use of mobile applications. Goh et al. (2014) had concluded in their study that there is no relation in between conditional value and intention of using mobile banking. Considering the studies performed, the hypothesis regarding conditional value has been developed as follows.

H5: Conditional value affects consumers' mobile banking adoptions.

# 3.2 M-Trust and Adoption of Mobile Banking

In the studies performed relevant to trust in mobile banking, Bidarra, Muñoz-Leiva & Li & Dana-Cabanillas (2013) specify that trust positively affects the attitudes relevant to ease of use of mobile banking and use of electronic

0/.

system, and that it negatively affects the perception of risk. Gu et al. (2009) had concluded by their studies that trust against mobile banking affects the intention of using mobile banking. Koo & Wati (2010) had concluded in their studies that trust has direct effect on satisfaction of end users and perceived practicality. Hanafizadeh et al. (2014) specify by their studies that trust had direct effect on the intention of using mobile banking.

The following hypothesis had been developed based on the studies examining the relations in between m-trust and adoption of mobile banking.

H6: M-Trust affects consumers' mobile banking adoptions.

# 3.3 M-Trust and Consumption Values

As no study directly examining the relation in between m-trust and consumption values is found as the result of the literature review performed, there are several studies analyzed trust and value relationship. Harris & Goode (2004) finds out a strong positive relation between perceived value and trust in online markets. Kim, Zhao & Yang (2008) explains perceived value is important in influencing customer trust. Karjaluoto et al. (2012) study shows that perceived value (functional value, monetary value, social value and emotional value) used as a variable in the model increases trust in telecommunication industry.

The following hypotheses had been developed for determining the relations in between consumption values regarding mobile banking services and m-trust.

H7a: Functional value affects consumers' m-trust toward mobile banking.

H7b: Emotional value affects consumers' m-trust toward mobile banking.

H7c: Epistemic value affects consumers' m-trust toward mobile banking.

H7d: Conditional value affects consumers' m-trust toward mobile banking.

H7e: Social value affects consumers' m-trust toward mobile banking.

## 4. Research Design

# 4.1 Data Collection

Survey method had been used in the collection of data. The data had been collected through accidental sampling from consumers who are using mobile banking services in Turkey. For the participants of the survey, it was found sufficient for them to perform at least one transaction over the mobile applications of their bank. The data had been collected within the period of March-June 2016, and 175 usable surveys in total had been obtained.

### 4.2 Sample Characteristics

In the following table, there are demographic features of the participants using the mobile banking services and their frequencies of using mobile banking.

	11	70
Gender		
Female	69	39.4
Male	106	60.6
Income		
0-1300 TL	74	42.3
1301-2500 TL	37	21.1
2501-3500 TL	28 24	16.0
3501-4500 TL	24	13.7
4501 TL and over	12	6.9
Age 18-25		
18-25	81	46.3
26-35	51	29.1
36-45	29	16.6
46 and over	14	8.0
Education		
Less- High School	6	3.4
High School	18	10.3
College	28	16.0
Bachelor of Science	102	58.3
Master Degree and PhD	21	12.0
Frequency of Mobil Banking Use		
10 and less	121	69.1
11-30	36	20.6
31 and over	18	10.3

Table 1. Demographic Features of the Participants

# 4.3 Questionnaire Design

The survey used in this study has been formed by using the previous studies in literature. The questions relevant to functional value had been formed by using the studies of Goh et al. (2014), Wang et al. (2013), Lee, Kim, Lee & Kim (2002), Sweeney & Soutar (2001), the phrases relevant to emotional value had been formed by using the studies of Wang et al. (2013); Lee et al. (2002), Sweeney & Soutar (2001), the phrases relevant to social value had been formed by using the studies of Goh et al. (2014), Wang et al. (2013), Lee et al., (2002), Sweeney & Soutar (2001), the phrases relevant to social value had been formed by using the studies of Goh et al. (2014), Wang et al. (2013), Lee et al., (2002), Sweeney & Soutar (2001), the phrases relevant to epistemic value had been formed by using the studies of Goh et al. (2014), and the phrases relevant to conditional value had been formed by using the studies of Goh et al. (2014) and Wang et al. (2013). And the phrases relevant to m-trust and m-banking adoption had been formed by using the study of Salimon, Yusoff & Mokhtar (2016). Five point Likert scale had been used in the survey.

# 4.4 Scale Validity and Reliability

In the assessment of validity and reliability of the structure, factors loads, Cronbach Alpha coefficient, composite reliability, average variance extracted (AVE) and discriminant validity criteria had been used. Factor loads are being used in the assessment of validity of combination, and factor loads are generally over 0.50, and the ideal factor load is over 0.70 (Hair, Black, Babin, Anderson & Tatham, 2006).

Structures	Variables	Factor Loadings	C.Alfa	C.R.	AVE
Functional Value	FV1	0.813	0.844	0.883	0.532
	FV2	0.770			
	FV3	0.810			
	FV4	0.598			
	FV5	0.762			
	FV6	0.647			
	FV7	0.629			
	CV1	0.690	0.767	0.842	0.518
Conditional Value	CV2	0.633			
	CV3	0.636			
	CV4	0.829			
	CV5	0.790			
Epistemic Value	EPV1	0.859	0.760	0.860	0.673
	EPV2	0.805			
	EPV3	0.796			
Emotional Value	EV1	0.726	0.780	0.850	0.532
Linouonai value	EV2	0.781			
	EV3	0.757			
	EV4	0.715			
	EV5	0.660			
Social Value	SV1	0.766	0.876	0.909	0.668
	SV2	0.818			
	SV3	0.850			
	SV4	0.867			
	SV5	0.782			
M-Trust	MT1	0.814	0.875	0.907	0.621
	MT2	0.710			
	MT3	0.642			
	MT4	0.822			
	MT5	0.899			
	MT6	0.814			
M-Banking Adoption	MA1	0.746	0.860	0.891	0.505
	MA2	0.715			
	MA3	0.768			
	MA4	0.668			
	MA6	0.653			
	MA7	0.744			
	MA8	0.688			
	MA9	0.698			

Table 2. Reliabilities and Validities of the Model

As it given in Table 2, it is being observed that the factor loads of all the variables in the research are over 0.50 and statistically significant. It may be said that the variables represent the structures in the research. Cronbach Alpha coefficient had been used in assessing the reliabilities of the variables. It is being expected for the Cronbach Alpha coefficient to be over 0.70 (Hair et al., 2006). And the composite reliability value is being

calculated as the internal consistency of Cronbach Alpha coefficient, and it is being required to be over 0.70, and the average variance extracted is required to be over 0.50 (Fornell & Lacker, 1981; Hair et al., 2006; Hair, Sarstedt, Hopkins & Kuppelwieser, 2014). It is being observed that the Cronbach Alpha coefficients of the structures of the research are over 0.70, that their combined reliability values are over 0.70, and that their AVE values are over 0.50. And this may be deemed as an indicator that the combination validity of the structures of the research is provided.

In the assessment of the discriminant validity, Fornell & Lacker (1981) criteria had been used. The square root of average variance extracted (AVE) being higher than the correlation among all structures and each phrase is being deemed as an indicator that structures have discriminant validity (Fornell & Lacker, 1981).

As seen in the above table, as the diagonal values relevant to each structure are higher than the values in their own columns, discriminant validity among structures had been enabled.

	Conditional	Emotional	Epistemic	Functional	M-Banking	M-Tru	Social
	Value	Value	Value	Value	Adoption	st	Value
Conditional	0.720						
Value							
Emotional Value	0.488	0.729					
Epistemic Value	0.355	0.359	0.820				
<b>Functional Value</b>	0.592	0.548	0.288	0.723			
M-Banking	0.765	0.623	0.423	0.656	0.711		
Adoption							
M-Trust	0.545	0.542	0.343	0.631	0.653	0.788	
Social Value	0.087	0.401	0.260	0.027	0.082	0.183	0.817

Table 3. Correlations among the Structures

Note: Bold elements placed on the diagonal line represent the square root of AVE

## 4.5 Data Analysis and Results

In the analysis of research model, partial least squares path analysis (PLS-SEM) had been used. The PLS-SEM approach had been developed by Wold and had been expanded by Lohmöler (Hair, Sarstedt, Ringle & Mena, 2012). The PLS-SEM approach is a regression based approach minimizing the residual variances of latent structures (Hair, Ringle & Sarstedt, 2011). The PLS-SEM approach is also being known as second generation structural equation modeling measuring the measurement model and structural model at the same time (Compeau & Higgins, 1995).

SmartPLS 3.0.4 (Ringle, Wende & Becker, 2015) software had been used in the analysis of the research model. PLS algorithm had been calculated in the calculation of the path coefficients relevant to the research's model and  $R^2$  values. And boot strapping method had been used in the calculation of the t values of the research model and their significance. In this research, t values and significances had been calculated by selecting 1.500 sub samples from the original data.

In the following table, there are results of analysis relevant to research model.

Table 4. The Results of PLS Analysis

Path	Hypothesis	Beta	t-value	р	Non-Supported/Supported
Functional Value -> M-Banking Adoption	H1	0.101	1.434	0.152	Non-Supported
Social Value -> M-Banking Adoption	H2	-0.126	2.664	0.008	Supported
Emotional Value -> M-Banking Adoption	H3	0.256	4.052	0.000	Supported
Epistemic Value -> M-Banking Adoption	H4	0.111	2.263	0.024	Supported
Conditional Value -> M-Banking Adoption	H5	0.447	8.266	0.000	Supported
M-Trust -> M-Banking Adoption	H6	0.193	3.351	0.001	Supported
Functional Value -> M-Trust	H7a	0.396	4.566	0.000	Supported
Emotional Value -> M-Trust	H7b	0.178	2.089	0.037	Supported
Epistemic Value -> M-Trust	H7c	0.082	1.226	0.220	Non-Supported
Conditional Value -> M-Trust	H7d	0.189	2.611	0.009	Supported
Social Value -> M-Trust	H7e	0.063	0.977	0.329	Non-Supported

Functional value is increasing trust in mobile banking, but it doesn't have an effect on the adoption of mobile banking. Emotional value has an effect increasing the trust in mobile banking and the adoption of mobile banking. While the epistemic value has no statistically significant effect on the trust relevant to mobile banking, it has an effect that increases the adoption of mobile banking. Conditional value increases the trust relevant to mobile banking and the adoption of mobile banking. While the social value has no effect on mobile banking trust, it has an effect decreasing the adoption of mobile banking. Finally, it is possible to say that that trust relevant to

mobile banking have an effect increasing the adoption of mobile banking.

And finally an assessment will be made relevant to the  $R^2$  and conformity goodness of the research model.  $R^2$  is representing the extracted variance of each variable (Hair et al., 2012). It is a significant criteria used in the assessment of structural equation model along with the significances of  $R^2$  path coefficients.  $R^2$  is getting a value in between 0 and 1, and high  $R^2$  values are being deemed as the indicator of well decisiveness. In the researches on consumer behaviors, this value being over 0.20 is being deemed as high (Hair et al., 2011). When the  $R^2$ values in this research are considered, m-trust  $R^2$  value is 0.489, and  $R^2$  value relevant to m-banking adoption is 0.729. And these values are indicators that the structures of the research have strong decisiveness on m-trust and m-banking adoption.

SRMR criteria had been used in assessing the conformity goodness of research model. SRMR is providing the difference in between observed and expected correlations. This value being smaller than 0.10 is an indicator that the research model is valid (Hu & Bentler, 1999; Henseler et al., 2014). In our research, SRMR value is 0.081. And this value is an indicator that the research model is a valid model.

# 5. Conclusion and General Discussion

Our findings indicate that conditional value is being deemed as the consumption value that most strongly affects the adoption of mobile banking. Due to many of its features such as the situation of the users, feeling of time pressure, flexibility of making transaction as independent from place, it is being observed that conditional factors have significant place in the use of mobile banking. Goh et al. (2014) couldn't find in their study any relation in between conditional value and use of mobile banking. As the result of the research, it is being observed that conditional value have positive effect on trust relevant to mobile banking. Conformity of mobile banking to the status of the users may be deemed as a factor increasing trust in mobile banking.

According to the results of the research, it is being observed that emotional value has positive and statistically significant effect on adoption of mobile banking and trust relevant to mobile banking. The satisfaction and good feelings caused by the use of mobile banking services are increasing the use of mobile banking. The studies in literature relevant to mobile service, mobile applications and mobile banking services are also supporting this result (Yang & Jolly, 2009; Turel et al., 2010; Tang & Foster, 2007; Wang et al., 2013; Goh et al., 2014). It may be said that the good feelings of the users for the mobile banking services, their satisfaction from the use of these services, finding them interesting and entertaining are enabling the increase of trust relevant to mobile banking services and applications.

According to the results of the research, it is being observed that epistemic value has positive and statistically significant effect on mobile banking adoption, but that it doesn't have a significant effect on trust relevant to mobile banking. As the users' care on innovation increases, their rates of using mobile banking service –which is a new e-commerce channel-, are increasing. The studies in literature realized relevant to mobile services, mobile applications and mobile banking services are also supporting this result (Tang & Foster, 2007; Wang et al., 2013; Goh et al., 2014; Tzeng, 2011). Despite having studies in literature regarding that the functional value affects mobile services, use of mobile services and use of mobile banking services (Pura, 2005; Turel et al., 2007; Wang et al., 2013; Goh et al., 2014), no significant relation could be found in between functional value and adoption of mobile banking by this study. But it had been concluded that functional value has a strong effect on trust relevant to mobile banking. It can be said that the perception of mobile banking services as quality, high performance and economic by the users increases the trust relevant to mobile banking.

According to the results of the research, it had been concluded that social value has negative and statistically significant effect on mobile banking adoption, and that it doesn't have significant effect on trust relevant to mobile banking. Mobile banking users' desire to be accepted by others, and their perceptions consisting social value such as a tool of expressing themselves and as assigning a personal meaning in respect of gaining social approval have an effect that decreases the mobile banking adoption of the consumers. Because benefits, economic reasons such as economy of the use of mobile banking rather than social norms, saving of time and decrease of energy cost lies on the basis of use of mobile banking applications by the consumers. In literature, there are studies regarding that social value is effective in the use of mobile services, in the use of mobile applications and in the use of mobile banking services (Yang & Jolly, 2009; Tang & Foster, 2007; Wang et al., 2013; Goh et al., 2014).

In the research, it had been concluded that trust relevant to mobile banking has positive and statistically significant effect on adoption of mobile banking. By many studies in literature (Lee, Lee & Kim, 2007; Gu et al., 2009; Hanafizadeh et al., 2014; Bidarra et al., 2013), it is being observed that trust relevant to mobile banking is effective on adoption of mobile banking. It is possible to say that as the trust of users relevant to mobile banking increases, the intentions of using mobile banking will also increase.

## 6. Suggestions

#### 6.1 Theoretical Suggestions

In our study, the effect of consumption values relevant to mobile banking services on adoption of mobile banking and on trust relevant to mobile banking had been examined. It is being observed that there are limited studies in literature which examine the adoption of mobile banking in the context of consumption values theory. No other study examining the consumption values which may be effective on trust relevant to mobile banking had been found. For these reasons, we can say that the consumption values may be used in defining the adoption of mobile banking. And when the percentage of explaining the consumption values and mobile banking is considered, it is possible for us to say that this rate may be deemed as a good determinant compared to consumer researches. In the same manner, when the rate of explaining of adoption of mobile banking by consumption value and trust relevant to mobile banking is considered, it is being observed that it may be used as a good determinant.

#### 6.2 Managerial Suggestions

In the research, it is being observed that conditional value has the strongest effect on the adoption of mobile banking. The enterprises wanting to increase the use of mobile banking may out the ease of use of mobile banking compared to branch banking and internet banking, lack of pressure of time and place and ease of making transaction to the forefront in their marketing implementations and strategies. By this way, they may both increase the adoption of mobile banking and decrease the crowdedness of branches. According to the results of the research, the second strongest effect is in between functional value and trust relevant to mobile banking. When the practitioners make the implementations and services of mobile banking as in conformity with quality standards, accessible, user friendly, secure and economic with consistent performance, they may increase the trust of users relevant to mobile banking, or may enable them to use it more securely. And another significant effect is in between emotional value and adoption of mobile banking. The practitioners may increase the adoption of mobile banking when they make the mobile banking services more attractive and entertaining and when they design them as to enable customer satisfaction.

## 7. Constraints and Future Researches

This study has many constraints. First of all, the research had been realized on a relatively narrow group selected by sampling method due to constraints of time and cost. The repetition of the research on a wider sample group will be beneficial for the validity of the results of the research. Our study is subject to mobile banking services in general. Further researches should adopt the model for activities like money transfer, investment instruments and credit application. Furthermore, the consumer consumption value relation with the risk perception, ease of use, usefulness and usability may be evaluated as valuables for future studies.

## References

- Aboelmaged, M., & Gebba, T. R. (2013). Mobile banking adoption: an examination of technology acceptance model and theory of planned behavior *International Journal of Business Research and Development (IJBRD)*, 2(1), 35-50.
- Aksoy, R. (2012). Trust as a marketing value and trust attitudes of the consumers towards electronic markets. *International Journal of Management Economics and Business*, 2(4), 79-90.
- Akturan, U., & Tezcan, N. (2012). Mobile banking adoption of the youth market: Perceptions and intentions. *Marketing Intelligence & Planning*, 30(4), 444-459. http://dx.doi.org/10.1108/02634501211231928
- Barnes, S. J., & Corbitt, B. (2003). Mobile banking: concept and potential. *International Journal of Mobile Communications*, 1(3), 273-288. http://dx.doi.org/10.1504/IJMC.2003.003494
- Bidarra, S., Muñoz-Leiva, S. H. F., & Li & Dana-Cabanillas, F. (2013). Analysis and modeling of the determinants of mobile banking acceptance. *The International Journal of Management Science and Information Technology* (*IJMSIT*), (8-(Apr-Jun)), 1-27.
- Bødker, M., Gimpel, G., & Hedman, J. (2009). The user experience of smart phones: a consumption values approach. 8th Global Mobility Roundtable, GMR.
- Chung, N., & Kwon, S. J. (2009). Effect of trust level on mobile banking satisfaction: a multi-group analysis of information system success instruments. *Behaviour & Information Technology*, 28(6), 549-562. http://dx.doi.org/10.1080/01449290802506562
- Compeau, D. R., & Higgins, C. A. (1995). Application of social cognitive theory to training for computer

skills. Information Systems Research, 6(2), 118-143. http://dx.doi.org/10.1287/isre.6.2.118

- Cudjoe, A. G., Anim, P. A., & Nyanyofio, J. G. N. T. (2015). Determinants of mobile banking adoption in the Ghanaian banking industry: a case of access bank Ghana limited. *Journal of Computer and Communications*, 3(02), 1-19. http://dx.doi.org/10.4236/jcc.2015.32001
- Finch, J. E. (2006). The impact of personal consumption values and beliefs on organic food purchase behavior. *Journal* of Food Products Marketing, 11(4), 63-76. http://dx.doi.org/10.1300/J038v11n04\_05
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, *18*(1), 39-50. http://dx.doi.org/10.2307/3151312
- Fukuyama, F. (1995). *Trust: The social virtues and the creation of prosperity* (No. D10 301 c. 1/c. 2). New York: Free press.
- Goh, T. T., Suki, M. N., & Fam, K. (2014). Exploring a consumption value model for Islamic mobile banking adoption. *Journal of Islamic Marketing*, 5(3), 344-365. http://dx.doi.org/10.1108/JIMA-08-2013-0056
- Gu, J. C., Lee, S. C., & Suh, Y. H. (2009). Determinants of behavioral intention to mobile banking. *Expert Systems with Applications*, *36*(9), 11605-11616. http://dx.doi.org/10.1016/j.eswa.2009.03.024
- Hair, F. J., Ringle, C, M. & Sarstedt. (2011). PLS-SEM: Indeed a Silver Bullet, Journal of Marketing Theory and Practice, 19(2), 139-152. http://dx.doi.org/10.2753/MTP1069-6679190202
- Hair, F. J. J., Sarstedt, M., Hopkins, L., & Kuppelwieser, G. V. (2014). Partial least squares structural equation modeling (PLS-SEM) An emerging tool in business research. *European Business Review*, 26(2), 106-121. http://dx.doi.org/10.1108/EBR-10-2013-0128
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). *Multivariate data analysis* (Vol.6.). Upper Saddle River, NJ: Pearson Prentice Hall.
- Hair, J. F., Sarstedt, M., Ringle, C. M., & Mena, J. A. (2012). An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of the Academy of Marketing Science*, 40(3), 414-433. http://dx.doi.org/10.1007/s11747-011-0261-6
- Hanafizadeh, P., Behboudi, M., Koshksaray, A. A., & Tabar, M. J. S. (2014). Mobile-banking adoption by Iranian bank clients. *Telematics and Informatics*, *31*(1), 62-78. http://dx.doi.org/10.1016/j.tele.2012.11.001
- Hanna, N. K. (2016). E-commerce as a techno-managerial innovation ecosystem: Policy implications. Journal of Innovation Management, 4(1), 4-10.
- Harris, L. C., & Goode, M. M. (2004). The four levels of loyalty and the pivotal role of trust: a study of online service dynamics. *Journal of retailing*, 80(2), 139-158. http://dx.doi.org/10.1016/j.jretai.2004.04.002
- Henseler, J., Dijkstra, T. K., Sarstedt, M., Ringle, C. M., Diamantopoulos, A., Straub, D. W., & Calantone, R. J. (2014). Common beliefs and reality about PLS comments on Rönkkö and Evermann (2013). Organizational Research Methods, 1094428114526928. http://dx.doi.org/ 10.1177/1094428114526928
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1-55. http://dx.doi.org/10.1080/10705519909540118
- Karjaluoto, H., Jayawardhena, C., Lepp äniemi, M., & Pihlström, M. (2012). How value and trust influence loyalty in wireless telecommunications industry. *Telecommunications Policy*, 36(8), 636-649. http://dx.doi.org/10.1016/j.telpol.2012.04.012
- Kim, C., Zhao, W., & Yang, K. H. (2008). An empirical study on the integrated framework of e-CRM in online shopping: evaluating the relationships among perceived value, satisfaction, and trust based on customers' perspectives. *Journal of Electronic Commerce in Organizations*, 6(3), 1-19.
- Kim, H. W., Chan, H. C., & Gupta, S. (2007). Value-based adoption of mobile internet: an empirical investigation. *Decision Support Systems*, 43(1), 111-126. http://dx.doi.org/10.1016/j.dss.2005.05.009
- Kleijnen, M., De Ruyter, K., & Wetzels, M. (2007). An assessment of value creation in mobile service delivery and the moderating role of time consciousness. *Journal of retailing*, 83(1), 33-46. http://dx.doi.org/10.1016/j.jretai.2006.10.004
- Koo, C., & Wati, Y. (2010). Toward an Understanding of the Mediating Role of" Trust" in Mobile Banking Service: An Empirical Test of Indonesia Case. *Journal of Universal Computer Science*, 16(13), 1801-1824. http://dx.doi.org/10.3217/jucs-016-13-1801

- Laukkanen, T., & Pasanen, M. (2008). Mobile banking innovators and early adopters: How they differ from other online users?. *Journal of Financial Services Marketing*, 13(2), 86-94. http://dx.doi.org/10.1057/palgrave.fsm.4760077
- Lee, K. C., & Chung, N. (2009). Understanding factors affecting trust in and satisfaction with mobile banking in Korea: A modified DeLone and McLean's model perspective. *Interacting with computers*, 21(5-6), 385-392. http://dx.doi.org/10.1016/j.intcom.2009.06.004
- Lee, K. S., Lee, H. S., & Kim, S. Y. (2007). Factors Influencing the Adoption Behavior of Mobile Banking: A South Korean perspective. *Journal of Internet Banking & Commerce*, 12(2), 1-9.
- Lee, Y., Kim, J., Lee, I., & Kim, H. (2002). A Cross-Cultural Study on the Value Structure of Mobile Internet Usage: Comparison Between Korea and Japan. *Journal of Electronic Commerce Research*, *3*(4), 227-239.
- Levy, S., & Hino, H. (2016). Emotional brand attachment: a factor in customer-bank relationships. *International Journal of Bank Marketing*, *34*(2), 136-150. http://dx.doi.org/10.1108/IJBM-06-2015-0092
- Li, F. (2013). Why users adopt mobile banking service: An empirical study. In 2013 10th International Conference on Service Systems and Service Management (pp. 490-493). IEEE. http://dx.doi.org/10.1109/ICSSSM.2013.6602554
- Lin, P. C., & Huang, Y. H. (2012). The influence factors on choice behavior regarding green products based on the theory of consumption values. *Journal of Cleaner Production*, 22(1), 11-18. http://dx.doi.org/10.1016/j.jclepro.2011.10.002
- Lin, P., Huang, Y., & Wang, J. (2010). Applying the theory of consumption values to choice behavior toward green products. In *Management of Innovation and Technology (ICMIT), 2010 IEEE International Conference on* 348-353. http://dx.doi.org/10.1109/ICMIT.2010.5492714
- Liu, F., Zhao, X., Chau, P. Y., & Tang, Q. (2015). Roles of perceived value and individual differences in the acceptance of mobile coupon applications. *Internet Research*, 25(3), 471-495. http://dx.doi.org/10.1108/IntR-02-2014-0053
- Luarn, P., & Lin, H. H. (2005). Toward an understanding of the behavioral intention to use mobile banking. *Computers in human behavior*, 21(6), 873-891. http://dx.doi.org/10.1016/j.chb.2004.03.003
- McManus, P., & Standing, C. (2004). Understanding the Reasons for Mobile Commerce Adoption and Use. ACIS 2004 Proceedings, 111. http://aisel.aisnet.org/cgi/viewcontent.cgi?article=1230&context=acis2004
- Oliveira, T., Faria, M., Thomas, M. A., & Popovič, A. (2014). Extending the understanding of mobile banking adoption: When UTAUT meets TTF and ITM. *International Journal of Information Management*, 34(5), 689-703. http://dx.doi.org/10.1016/j.ijinfomgt.2014.06.004
- Papadopoulou, P., Andreou, A., Kanellis, P., & Martakos, D. (2001). Trust and relationship building in electronic commerce. *Internet research*, 11(4), 322-332. http://dx.doi.org/10.1108/10662240110402777
- Peng, K. F., Chen, Y., & Wen, K. W. (2014). Brand relationship, consumption values and branded app adoption. *Industrial Management & Data Systems*, 114(8), 1131-1143. http://dx.doi.org/10.1108/IMDS-05-2014-0132
- Punj, G. (2011). Effect of consumer beliefs on online purchase behavior: the influence of demographic characteristics and consumption values. *Journal of Interactive Marketing*, 25(3), 134-144. http://dx.doi.org/10.1016/j.intmar.2011.04.004
- Pura, M. (2005). Linking perceived value and loyalty in location-based mobile services. *Managing Service Quality: An International Journal*, 15(6), 509-538. http://dx.doi.org/10.1108/09604520510634005
- Qu, W. G., Pinsonneault, A., Tomiuk, D., Wang, S., & Liu, Y. (2015). The impacts of social trust on open and closed B2B e-commerce: A Europe-based study. *Information & Management*, 52(2), 151-159. http://dx.doi.org/10.1016/j.im.2014.07.002
- Riasi, A., & Pourmiri, S. (2015). Effects of online marketing on Iranian ecotourism industry: Economic, sociological, and cultural aspects. *Management Science Letters*, 5(10), 915-926. http://dx.doi.org/10.5267/j.msl.2015.8.005
- Ringle, C, M., Wende, S., & Becker, J. M. (2015). SmartPLS 3. www.smartpls.com
- Saeed, K. (2011). Understanding the Adoption of Mobile Banking Services: An Empirical Assessment. In *AMCIS*. http://aisel.aisnet.org/amcis2011\_submissions/5
- Salimon, M. G., Yusoff, R. Z., & Mokhtar, S. S. M. (2016). The influence of e-satisfaction, e-trust and hedonic motivation on the adoption of e-banking and its determinants in Nigeria: A pilot study. *Mediterranean Journal of*

Social Sciences, 7(1), 54-63. http://dx.doi.org/10.5901/mjss.2016.v7n1p54

- S ánchez-Fern ández, R., & Iniesta-Bonillo, M. Á. (2007). The concept of perceived value: a systematic review of the research. *Marketing theory*, 7(4), 427-451. http://dx.doi.org/10.1177/1470593107083165
- Shaikh, A. A., & Karjaluoto, H. (2015). Mobile banking adoption: A literature review. *Telematics and Informatics*, 32(1), 129-142. http://dx.doi.org/10.1016/j.tele.2014.05.003
- Sharma, N., & Patterson, P. G. (2000). Switching costs, alternative attractiveness and experience as moderators of relationship commitment in professional, consumer services. *International journal of service industry* management, 11(5), 470-490. http://dx.doi.org/10.1108/09564230010360182
- Shen, Y. C., Huang, C. Y., Chu, C. H., & Hsu, C. T. (2010). A benefit–cost perspective of the consumer adoption of the mobile banking system. *Behaviour & Information Technology*, 29(5), 497-511. http://dx.doi.org/10.1080/01449290903490658
- Sheth, J. N., Newman, B. I., & Gross, B. L. (1991a). *Consumption values and market choices*. Cincinnati, OH: South-Western Publishing.
- Sheth, J. N., Newman, B. I., & Gross, B. L. (1991b). Why we buy what we buy: A theory of consumption values. *Journal of Business Research*, 22, 159-170. http://dx.doi.org/10.1016/0148-2963(91)90050-8
- Suh, B., & Han, I. (2002). Effect of trust on customer acceptance of Internet banking. *Electronic Commerce research* and applications, 1(3), 247-263. http://dx.doi.org/10.1016/S1567-4223(02)00017-0
- Sweeney, J. C., & Soutar, G. N. (2001). Consumer perceived value: The development of a multiple item scale. *Journal of retailing*, 77(2), 203-220. http://dx.doi.org/10.1016/S0022-4359(01)00041-0
- Tang, Y., & Forster, P. (2007). Exploring the value structure behind mobile auction adoption intention. *AMCIS 2007 Proceedings*, 499. http://aisel.aisnet.org/cgi/viewcontent.cgi?article=2009&context=amcis2007
- Tobbin, P. (2012). Towards a model of adoption in mobile banking by the unbanked: a qualitative study. *info*, *14*(5), 74-88. http://dx.doi.org/10.1108/14636691211256313
- Tran, H. T. T., & Corner, J. (2016). The impact of communication channels on mobile banking adoption. *International Journal of Bank Marketing*, *34*(1), 78-109. http://dx.doi.org/10.1108/IJBM-06-2014-0073
- Turel, O., Serenko, A., & Bontis, N. (2007). User acceptance of wireless short messaging services: Deconstructing perceived value. *Information & Management*, 44(1), 63-73. http://dx.doi.org/10.1016/j.im.2006.10.005
- Turel, O., Serenko, A., & Bontis, N. (2010). User acceptance of hedonic digital artifacts: A theory of consumption values perspective. *Information & Management*, 47(1), 53-59. http://dx.doi.org/10.1016/j.im.2009.10.002
- Tzeng, J. Y. (2011). Perceived values and prospective users' acceptance of prospective technology: The case of a career eportfolio system. *Computers & Education*, 56(1), 157-165. http://dx.doi.org/10.1016/j.compedu.2010.08.010
- Wang, H. Y., Liao, C., & Yang, L. H. (2013). What affects mobile application use? The roles of consumption values. *International Journal of Marketing Studies*, 5(2), 11-22. http://dx.doi.org/10.5539/ijms.v5n2p11
- Wang, Y. S., Lin, H. H., & Luarn, P. (2006). Predicting consumer intention to use mobile service. *Information systems journal*, 16(2), 157-179. http://dx.doi.org/10.1111/j.1365-2575.2006.00213.x
- Yang, K., & Jolly, L. D. (2009). The effects of consumer perceived value and subjective norm on mobile data service adoption between American and Korean consumers. *Journal of Retailing and Consumer services*, 16(6), 502-508. http://dx.doi.org/10.1016/j.jretconser.2009.08.005
- Ying, L., & Can, Z. (2010). Customer's adoption decision analysis of mobile banking service. In 2010 International Conference on Management and Service Science.http://dx.doi.org/10.1109/ICMSS.2010.5576874
- Zeithaml, V. A. (1988). Consumer perceptions of price, quality, and value: a means-end model and synthesis of evidence. *The Journal of Marketing*, 2-22. http://dx.doi.org/10.2307/1251446

# Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (http://creativecommons.org/licenses/by/4.0/).