



AWARENESS AND BEHAVIORAL INTENTION OF MOBILE BANKING APPS DURING OFFLINE SHOPPING

Dr. V. Venkateshwarlu,
Assistant Professor,
MBA Department,
SVS Group of Institutions, Warangal
Telangana, India.
venkat_mba@svsit.ac.in

Abstract

The factors influencing mobile banking app usage during offline shopping had been assessed in this research work. An empirical investigation had been made (N = 160) with a measurement model through multiple regression analysis. The past experience had been considered as mediating variable so that the research gap is fulfilled in this area. Many studies have been conducted with technology acceptance model but none of them have used past experience as mediating variable. In this research it is found that past experience does not mediating effect between consumer attitude and behavioral intention during offline shopping. This study is helpful for information technology and marketing professional in banking sector.

Keywords: Consumer attitude, consumer behavioral, mediation analysis, mobile banking, behavioral intentions, technology acceptance model.

Introduction

Rapid advancements in mobile technology had influenced shopping behavior of consumers. Mobile payments and online payments have been common in the recent years. Yet, there is need to evaluate the factors influencing consumer behavior. During online shopping payment can be made both in either offline or online mode. Next, during offline shopping payments can be made in online mode (through PhonePe, Gpay or specific banking app). Each bank is providing its unique app to provide variety of services to customers. In this regard the consumer behavior for using mobile banking app in offline shopping had become an interesting area of research. Even though companies have made strong effort to provide all categories in online shopping portals, sometimes people prefer to touch the product before they purchase it. Customers are given opportunity through banking apps and mobile apps (PhonePe, Gpay) to make payments in online more during physical shopping (offline shopping) for products.

Technology acceptance model (TAM) had been widely applied to know the intention and behavior of consumers for mobile banking. Digital banking, mobile payments and online payments are some terms which means use of internet or networks to make payments without using cash. Hence impact of selected factors on consumer intention with mediating effect of past experience had been analyzed in this research study. Consumers develop their attitude, intention and behaviors with their past experience. For example a customer who experience transactions failure may lose trust in online payment and prefers to carry cash. The past behaviors and past experiences on future intention and future behavior of customers.

Research Objectives

- To know the impact of selected factors on behavior intention of consumers towards mobile banking apps.
- To study the mediating effect of past experience on relationship between awareness and behavioral intention.
- To described the mediating role of past experience on relationship between consumer attitude and behavioral intention.
- To give some suggestions for mobile apps developers and banking professionals.

Scope of the study

Mobile banking and banking apps is broad area of research. Consumer behavior may vary according to demographic characteristics but this study considers only the relationship between selected factors. Behavior can be evaluated from various kinds of theories but in this study only variables from the view point of technology acceptance mode had been considered. This study does not focus on the gap between intention and behavior. There are evidences in the past where intentions have not been transformed to actual behaviors.

Literature Review

Awareness, attitude, perceived use has significant relationship with adoption of mobile banking (Raza et al, 2017). Perceived ease of use and perceived security influences consumer behavior for use of mobile wallets (Sunny & George, 2018). Social risk, performance risk and attitude have impact on consumer adoption mobile adoption intention (Aturan & Tezcan, 2012). Due to increased availability of 3G and 4G networks, the usage of smart phones had increased. Sharma (2019) had considered two variables autonomous motivation and controlled motivation with an extension to technology acceptance model (TAM) for determining mobile banking acceptance. Continuous intention towards mobile banking can be predicted through perceived risk, perceived usefulness and task-technology fit (Yuan et al, 2016). High mobile-banking adopters and low mobile-mobile adopters are influenced by trialability, ease of use, credibility, trust and compatibility (Koksal, 2016). According to Chawla and Joshi (2019) the intention for usage of mobile wallets are influenced by factors such as perceived usefulness, life style compatibility, security, ease of use and trust. They have considered students and working professionals in metro cities as respondents for their study.

Young consumers' behavioral intention towards mobile banking is influenced by perceived usefulness, credibility, structural assurance, and user satisfaction (Priya et al, 2018). Demographic variables have been considered as moderators and trust had been selected as mediator by Chiu et al (2017) while determining the factors influencing on behavioral intention towards mobile banking. Chopdar et al., (2018) had conducted a study in cross cultural context and found that security and privacy have moderating impact during mobile shopping. Consumer behavioral researchers and mobile app developers have been given suggestions for their cross cultural mobile shopping study. Laukkanen (2016) had used method of binary logistic models and found gender and age are strong predictors for selecting seeming similar service innovations. Suki and Ramayah (2012) had argued that gaming zones are more essential to attract the users

towards social networking sites. Zhang and Kizildag (2018) had explained that factors such as privacy, reliability, technology safety are motivators for consumers to adopt mobile banking services. Deb and Lomo-David (2014) found through empirical evidence for positive relationship between perceived usefulness, perceived ease of use and Social Influence to positive attitude towards m-banking.

Methodology

Sample for this study had been selected with simple random sampling. A list of contacts has been gathered from social networking sites and link for the survey had been forwarded. An explanation was given about the purpose of research. The demographic characteristics (gender, age) had been used to describe the profile of respondents. The categorical variable type of banking app had been used to know frequency of mobile banking app. Independent variables is awareness, attitude, ease of use and past experience. Next, the dependent variables are behavioral intention towards mobile banking app and the mediator is past experience with mobile app while making digital transactions. Structural equation modeling (SEM) had been used for testing relationship between the variables. SPSS and SPSS AMOS are used for conducting data analysis. Descriptive statistic, frequency analysis and reliability tests have been conducted. The items for each construct had been taken from research works related to technology acceptance models. According to requirements of this study all the items have been modified. Suggestions of subject experts and making professional have been taken during generation of items. Exploratory factor analysis had also been conducted to know the factor loadings. It is confirmed that all the items are loading on their respective constructs. Hence the validity of the measurement model had been obtained from all the aspects.

H1: There is direct impact of awareness (AW) on behavioral intention (BI) for using mobile banking app.

H2: There is direct impact of ease of use (EU) on behavioral intention (BI) for using mobile banking app.

H3: There is direct impact of attitude (AT) on behavioral intention (BI) for using mobile banking app.

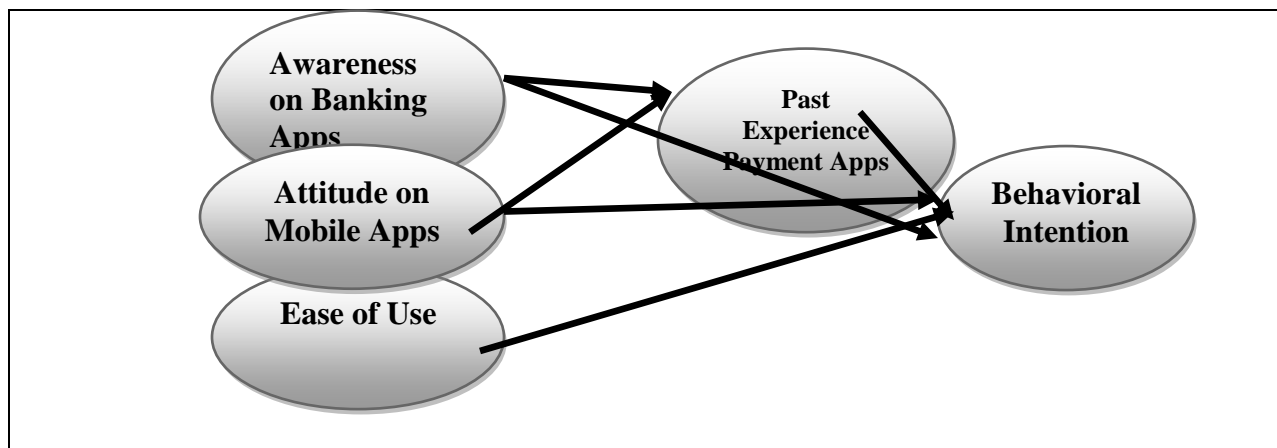
H4: There is direct impact of past experience (PE) on behavioral intention (BI) for using mobile banking app.

H5: Past experience (PE) has a mediating impact on relationship between awareness (AW) and behavioral intention (BI).

H6: Past experience (PE) has mediating impact on relationship between attitude (AT) and behavioral intention (BI).

Figure 1

Conceptual diagram of study



(Source: Own creation)

Data Analysis

Among the respondents (N = 160) the demographic characteristics have been found through frequency analysis for gender (male = 66.90%, female = 33.10%), age groups (up to 30 years = 20.0%, 31 to 40 years = 47.50%, above 40 years = 32.50%). Based on Table 1 it is observed about usage of app (specific banking app = 38.10%, mobile app = 61.90%). Majority of the respondents are male and middle aged adults.

Table 1.

Profile of respondents

Variable	Characteristic	Percent
Gender	Male	66.90
	Female	33.10
Age group	up to 30 years	20.00
	31 to 40 years	47.50
	Above 40 years	32.50
Type of app	Specific bank app	38.10
	Mobile app	61.90

(Source: Primary data)

Table 2.

Items, validity and source

Variable	Item	Alpha	Source
Awareness (AW)	▪ I am having good knowledge on mobile banking apps.	0.759	Own
	▪ I am familiar with mobile banking technology.		
	▪ I know the process of mobile banking.		
Ease of use (EU)	▪ I can easily perform mobile banking transactions.	0.856	Modified from previous

	<ul style="list-style-type: none"> ▪ It is easy for me to install banking related apps. ▪ I can make easily make settings for mobile apps. 		papers
Consumer attitude (AT)	<ul style="list-style-type: none"> ▪ I like mobile banking. ▪ Mobile banking apps are very in offline shopping. ▪ Mobile payments during offline shopping is important to me. 	0.923	Modified from previous papers
Past experience (PE)	<ul style="list-style-type: none"> ▪ I have not faced troubles with mobile banking. ▪ Mobile banking transactions are highly secured during offline shopping. 	0.910	Own
Behavioral intention (BI)	<ul style="list-style-type: none"> ▪ I like to use mobile banking in offline shopping. ▪ I will install mobile banking apps and use it during shopping. 	0.895	Modified from previous papers

(Source: Own preparation)

Table 3.

Multiple regression analysis

Hypothesis	Path	Coefficient	Direct effect	
			p-value	Result
H1	AW→BI	0.075	0.369	Not significant
H2	EU→BI	0.156	0.044	Positive
H3	AT→BI	0.166	0.030	Positive
H4	PE→BI	-0.119	0.145	Not significant

Notes: AW = Awareness, AT = Attitude, EU = Ease of use, PE = Past experience, BI = Behavioral intention

(Source: Output from SPSS AMOS)

Multiple regression analysis had been conducted for evaluating the impact of independent variables on dependent variable. Impact of awareness on behavior intention (M = 3.406, BI = 3.879) had been assed Awareness (M = 3.881, SD = 0.788) had no significant relationship with behavioral intention ($\beta = 0.075$, $p = 0.369$). Ease of use (M = 4.087, SD = 0.669) has positive significant relationship with behavioral intention ($\beta = 0.156$, $p = 0.044$). Attitude of consumers (M = 3.912, SD = 0.932) had positive impact on behavioral intention ($\beta = 0.0166$, $p = 0.030$). Past experience (M = 3.506, SD = 0.933) has significant negative relationship with behavioral intention ($\beta = -0.119$, $p = 0.145$). Hence hypotheses H1 and H4 are not significant whereas H2 and H3 are supported.

Table 4.

Meditational analysis

Path	Coefficient	p-value	Indirect effect		Result
			Bias CI		
			Lower Bound	Upper Bound	
AW-->PE-->BI	0.043	0.257	-0.030	0.139	No mediation
AT--> PE-->BI	-0.004	0.395	-0.038	0.012	No mediation

(Source: Output from SPSS AMOS)

The role of mediating variable past experience (PE) had been evaluated for testing H5 and H6. Relationship between awareness and behavioral intention is not mediated by past experience ($\beta = 0.043$, $p = 0.257$, [-0.030, 0.139]). The relationship between attitude and behavioral intention is not mediated by behavioral intention ($\beta = -0.004$, $p = 0.395$, [-0.038, 0.012]). Hence H5 and H6 have not supported as per Table 3.

Discussion

Consumer behavioral intentions are influenced by attitude and ease of use. Past experience of consumers with mobile banking apps does not having mediating effect between consumer attitude and behavioral intentions. The use of mobile app (PhonePe and GPay) is high compared to specific banking payment apps. However ICICI bank had been more popular with regard to mobile banking payment interface. The awareness on mobile banking apps had increased in recent years but it does not have significant relationship with behavioral intention. Hence attitude and ease of use should be given priority while designing mobile banking payment apps.

Future research

Majority of research works have focused on behavioral intention with widely used framework. But few studies have been conducted using moderating variables. Therefore moderating effect of categorical variables should be considered by future researchers. This study provides knowledge with relevance to local context. But the same model should be tested in various research settings. The validity and reliability of the proposed model in this study can be tested through longitudinal studies by scholars in future.

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Appendix

Table 5.

Exploratory factor analysis

	Rotated Component Matrix ^a				
	Component				
	1	2	3	4	5
AW1			.933		
AW2			.938		
AW3			.929		
AT1	.974				
AT2	.974				
AT3	.980				
BI1				.970	
BI2				.971	
PE1					.912
PE2					.915
EU1		.956			
EU2		.885			
EU3		.912			

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 5 iterations.