

THEORY OF PLANNED BEHAVIOR: A PERSPECTIVE IN INDIA'S INTERNET BANKING

Dr. Rajesh Bhatt

Head, Department of Business Administration
Bhavnagar University, Bhavnagar

ABSTRACT

The banking services in India have gone through many fold changes. Accessing the account from a distant place is not a privilege but minimum services offerings in today's world. One of such facility is internet banking. The wider acceptance of Internet Banking is due to its inherited time and cost saving benefits to mutual side viz. bank and the customer. It shows an attitudinal preference as well as transformation by customers. As such attitude is a hypothetical construct that represents an individual's like or dislike for an object / item. Attitudes are positive, negative or neutral views of an object. This paper highlights component of attitude for internet banking services through empirical study using The Theory of Planned Behavior

Key Words: Internet Banking, Theory of Planned Behavior, Attitude, Theory of Reasoned Action

INTRODUCTION

Attitude research has had a pervasive impact on the understanding of consumer behavior in general with the development of a wide range of attitude theories (Lutz 1991). Researchers that assess attitudes do this by asking questions or making inferences from behavior. Attitudes are not directly observable, but must be inferred from what consumers say. Or in other words attitude assessment procedures assess the respondent's evaluation of the attitude object. The term is often defined as (Fishbein and Ajzen 1975): "a learned predisposition to respond in a consistently favorable or unfavorable manner with respect to a given object". As seen in this definition the concept object has a central place in attitude theories. If we were interested in learning about consumers' attitude toward online shopping our object might include the Internet (technology), payment, security and delivery.

LITERATURE REVIEW

INTERNET BANKING

Internet banking becomes a major trend in the financial marketplace and the number of users of the internet banking has been increasing significantly. Internet banking is a new type of information system that uses the innovative resources of the Internet and WWW to enable customers to effect financial activities in virtual space (Grandy T. 1995). One of the first examples of the growing importance of information systems in the banks was the establishment in October 1995 of fully-fledged virtual banking by the Security First Network Bank in the USA (Shih Y., Fang K., 2004). This venture has subsequently attracted considerable attention in financial and information technology communities. In case of India, commercial banks have been quick to realize the importance of internet banking to competitive advantage. Internet banking users in India have risen dramatically after its introduction. With the introduction of internet banking, customers can now perform transactions by themselves.

Internet banking is extremely beneficial to customers because of the savings in costs, time and space it offers, its quick response to complaints, and its delivery of improved services, all of which benefits make for easier banking (Turban, E., Lee, J., King, D. and Chung, H. M., 2000). Bank customers, now, perform their banking transactions at the place and time of their choice because of internet banking. Although internet banking may help banks to reduce costs, time and space, there are important considerations such as the factors that influence intention to use internet banking and that affect adoption to use new forms of internet banking. Research on the determinants of internet banking usage may, therefore, enhance the understanding of a customer's intention to use internet banking, and show how this intention affect internet banking usage behavior.

In recent years, understanding why people accept or reject computer systems such as internet banking has proven to be one of the most challenging issues in information system research (Swanson, E. B., 1988).

ATTITUDE

The heart of attitude research has been to specify the composition of an attitude to better understand and predict behavior. Each of these models that have been developed provides a different perspective on the number of component parts of an attitude and how those parts are arranged or interrelated. The most used model in consumer behavior research is the (Theory of Reason Action) TRA and (Theory of Planned Behavior) TPB. These two models will be described and analyzed in relationship to their contribution to understand and predict behavior.

THEORY OF REASONED ACTION

The Theory of Reasoned Action (TRA) is a model that finds its origins in the field of social psychology. This model developed by Fishbein and Ajzen (1975) defines the links between beliefs, attitudes, norms, intentions, and behaviors of individuals. According to this model, a person's behavior is determined by its behavioral intention to perform it. This intention is itself determined by the person's attitudes and his subjective norms towards the behavior. Fishbein and Ajzen (1975, p. 302) define the subjective norms as "the person's perception that most people who are important to him think he should or should not perform the behavior in question" (Fishbein and Ajzen 1975, p.302)

The scope of interest to attitude researchers is voluntary actions, ones under the person's volitional control. The most immediate determinant of such action is, from this perspective, presumably the person's behavioral intention – what a consumer intends to do. TRA is a model developed by Martin Fishbein and Icek Ajzen (Fishbein and Ajzen 1975) which proposes that one's intention to perform or not perform a given behavior is a function of two cognitive variables: (1) one's attitude toward the behavior in question, and (2) one's subjective norm, which represent one's general perception of how important others desire the performance or non-performance of the behavior. From this, intentions are influenced both by personal attitudinal judgments (consumers personal evaluation of shopping online) and by social-normative considerations (what consumers think other people think they should do in proportion to shop online). It is important to note that the TRA model is relevant to behavior that is under the volitional control of the person (Fishbein and Ajzen 1975). The TRA model is expressed as follows:

$$BI \text{ (Behavioral Intention)} = AB (w1) + SN (w2)$$

Here, BI refers to one's behavior intention; AB represents one's attitude toward the behavior; SN represents one's subjective norm; and w1 and w2 represent the weights for each factor. This relationship between the key variables attitude/intention and behavior is showed in figure 1.

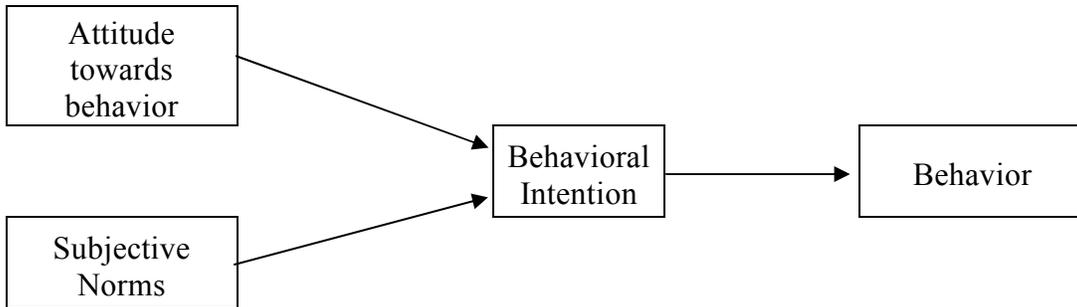


Figure 1: Theory of Reasoned action

TRA also claims that all other factors which influence the behavior only do so in an indirect way by influencing the attitude or subjective norms. Fishbein and Ajzen (1975) refer to these factors as being external variables. These variables can be for example, the characteristics of the tasks, of the interface or of the user, the type of development implementation, the political influences, the organizational structure, etc. (Davis, Bagozzi and Warshaw, on 1989). A meta-analysis on the application of the theory of reasoned action showed that the model can produce good predictions of choices made by an individual when facing several alternatives (Sheppard, Hartwick, and Warshaw, on 1988).

All models that try to explain and predict behavior have limitations. The TRA model developed by Fishbein has a composition where behavior may be predicted from measures of behavior intention only under certain closely specified conditions (Ajzen and Fishbein 1972; Fishbein 1973). This mean that high correlations between intention and behavior are attainable only when (Foxall 2005):

- the cognitive measures and measures of behavior are equally specific
- the period of time which intervenes between the measurement of the behavioral intention and that of the behavioral criterion is very short
- when novel consequences of behavior or reference group evaluations of the action under investigation do not intervene
- when the behavior is voluntary and amenable to reason
- when the intention which accurately predicts behavior is that which immediately precedes the act

These premises reduce the TRA model's ability to predict consumer behavior. Restricting the TRA to behavior that is volitional means it requires only motivation on the part of the individual (Foxall 2005). Consumer behavior includes enactment preconditions such as resources, skills and cooperation. In conclusion, the TRA model has limitations when researchers shall try to predict consumer behavior. And, because of its relation to meta-theory, the TRA model provides imperfect information to those who work with the adaptation of electronic commerce application.

THEORY OF PLANNED BEHAVIOR

The Theory of Planned Behavior (Ajzen, on 1985; on 1991) is an extension of the Theory of reasoned action. According to the author, the need for this new model results from limitations on behaviors on which people had little control. Ajzen added therefore a third element to his model, which according to him has an influence on a person's intention to perform a behavior which he called perceived behavioral control.

Perceived behavioral control refers to readily available resources, skills, and opportunities as well as the person's own perception towards the importance of achieving the results. The concept of Perceived Behavioral Control is close to the concept of self-efficacy of Bandura (1982). The latter explains that beliefs of an individual concerning his self-efficacy can have an influence on his choice of activities,

his preparation for the activity and finally on the effort that he will exert during the activity in question. Therefore, if for example two individuals have the strong intention to learn a new language, the one who thinks that he will succeed in mastering it, is the one who will tend to persevere more than the other who doubts in his capacities (Ajzen, 1991).

Ajzen's model uses three variables (attitude, subjective norms, and perceived behavioral control) to demonstrate the direct influence that they have on the behavioral intention. The behavioral intention in turn influences the behavior. The figure below illustrates the links between the various variables:

$$B \sim BI = AB (w1) + SN (w2) + PBC (w3)$$

Here, B refers to behavior; BI refers to one's behavior intention; AB represents one's attitude towards the behavior; SN represents one's subjective norm; PBC refers to perceived behavioral control; and $w1$, $w2$ and $w3$ represent the weights for each factor. This relationship between the key variables attitude/intention and behavior is exhibited in figure 2.

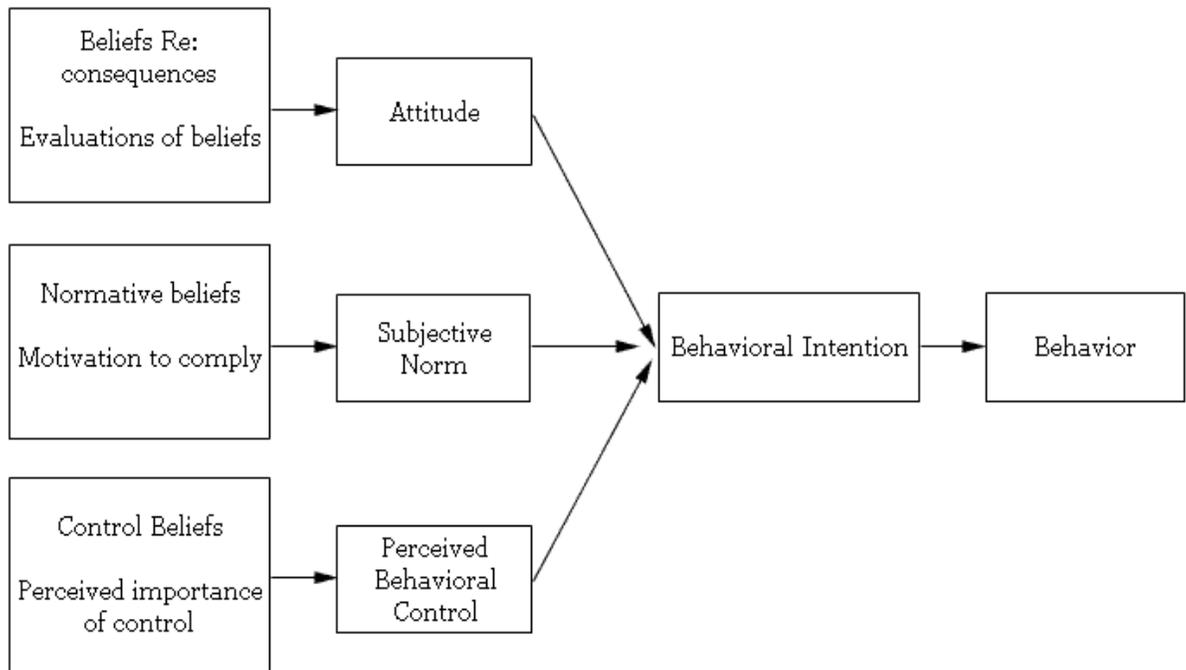


Figure 2: Theory of Planned Behavior from Dillon and Morris (1996)

Taylor and Todd (1995) made a research on the theory of planned action in the specific context of new technologies. The authors used existing literature in order to identify antecedents of attitude, subjective norms and perception of control. Their results show that factors that determine attitude are perceived utility, perceived ease of use and compatibility. As for subjective norms, it seemed that the influence of peers and superiors had the greatest impact. Finally, self-efficacy and positive conditions such as available resources and technology are considered as factors determining the perceived behavioral control.

Theory of Reasoned Action suggests that a person's behavior is determined by his/her intention to perform the behavior and that this intention is, in turn, a function of his/her attitude toward the behavior and his/her subjective norm. The best predictor of behavior is intention. Intention is the cognitive representation of a person's readiness to perform a given behavior, and it is considered to be the immediate antecedent of behavior. This intention is determined by three things: their attitude toward the specific behavior, their subjective norms and their perceived behavioral control. The theory of planned behavior holds that only specific attitudes toward the behavior in question can be expected to predict that behavior.

In addition to measuring attitudes toward the behavior, we also need to measure people's subjective norms – their beliefs about how people they care about will view the behavior in question. To predict someone's intentions, knowing these beliefs can be as important as knowing the person's attitudes. Finally, perceived behavioral control influences intentions. Perceived behavioral control refers to people's perceptions of their ability to perform a given behavior. These predictors lead to intention. A general rule, the more favorable the attitude and the subjective norm, and the greater the perceived control the stronger should the person's intention to perform the behavior in question.

RESEARCH METHODOLOGY

To assess the attitude for internet banking, a survey was conducted on total of 150 respondents from major cities of Gujarat State-India.

Sampling Method: Judgment Sampling Method (Non – Probabilistic Sampling Method)

Sampling Universe: Banking Customers

Sampling Unit: Internet Banking Customer

Instrument for Survey: Structured Non – Disguised Questionnaire using 7 Point Scale

ANALYSIS

As seen in the model three components were examined and then combined to form behavioral intention (BI), i.e. attitude towards the object, subjective norms & perceived behavioral control. In the case of attitude towards the object was evaluated by asking the respondents about their belief towards the object and the strength of the belief.

Subjective norms were examined by normative beliefs and the motivation to comply with it, while in the case of perceived behavioral control is examined by using two factors control belief and perceived importance of control. All three components combined give BI as the resultant.

As per the respondents profile shown in table no1 most of the respondents using internet banking belongs to the age group 20 to 40. The gender using most of the internet banking is male i.e. 78%, classifying by the education most users are either graduate or post graduate. Company employees are mostly using internet banking 42%. This indicates that the new age customers are more likely to use the internet banking. It has been observed that with the age of more than 50 are using internet banking by mere 2.0%.

Table no 2 depicts the internal consistency reliability using SPSS10.0 was assessed by computing Cronbach's alpha. The value ranges from 0.7368 ($\sum nbj mcj$) to 0.9156 (for perceived behavioral control). Hair, Anderson, Tatham and Black suggested that the lowest limit for Cronbach's alpha be 0.70. All constructs in our research model demonstrated acceptable reliability. These coefficients are represented for each of the constructs. It is clear from the table that some of the variables values are less than 0.70; they are A2, A4, b3e3 BL3, nb2mc2 & nb3mc3. This state that the variables are less reliable but as none of the resultant variable (Attitude towards the object, Subjective Norms, Perceived Behavioral Control & Behavioral Intention) is having less than 0.70, all the variables can be treated as if they all are reliable.

From the table 3 it is clear that all the responses fall between 0 to 90 (in three categories) with highest percentage in the first 0 to 30 category. The increase in value of attitude component points towards the values of beliefs and the importance of the belief for the consumer. Here most of the values are in 0 to 90 category, this depicts that most of the consumers have marked (on a seven point scale) on lesser value and this is not in the list of important factors for consumers.

The values in the table 4 depicts that the consumers are influenced by people in one's social environment on his/her behavioral intentions. The highest percentage is in the first category 0 to 30. It means that either the values of normative beliefs on a seven point scale are smaller or motivation to comply with it has a relatively less weightage assigned by consumers. Even 100% of the responses fall between 0 to 90 range. This denotes that the consumers don't get much influenced by others in his/her social environment and the later does not much affect the behavioral intention.

Table 5 shows individual's perceived ease or difficulty of performing the particular behavior (Ajzen, 1988). It is assumed that perceived behavioral control is determined by the total set of accessible control beliefs. Here the highest value in the table is 49 (32.67%) that is in the 121 to 150 range & in the 91 to 120 range the frequency is 35 (23.33%) this indicates that either control belief has higher value or the perceived power of the control factor has a higher value assigned by the consumer. Consumer believes that he/she has higher perceived behavioral control over his/her behavioral.

Table 6 shows an indication of an individual's readiness to perform a given behavior. Here the frequency of responses is distributed in 0 to 120 range. This indicates that the responses are different and different consumers are showing different level of willingness towards performing the behavior, as in our case it is willingness to adopt internet banking.

Hypothesis 1:

Null Hypo H ₀	All three elements, attitude towards the object, subjective norms & perceived behavioral control are not different for consumers.
Alt Hypo H ₁	All three elements, attitude towards the object, subjective norms & perceived behavioral control are different for consumers.

Based on the values given in the table no. 2, 3, 4 & 5, to measure the extent to which the data match in-between Chi-Square test was executed and the results are shown in table no 7:

- 33 cells (100.0%) have expected frequencies less than 5. The minimum expected cell frequency is 1.5.
- 35 cells (100.0%) have expected frequencies less than 5. The minimum expected cell frequency is 1.4.
- 36 cells (100.0%) have expected frequencies less than 5. The minimum expected cell frequency is 1.4.
- 39 cells (100.0%) have expected frequencies less than 5. The minimum expected cell frequency is 1.3.

Table no. 7 indicates that for all the variables asymptotic significance is greater than 0.05 that indicates that all the variables are different in nature as well as the values are concerned. Results show that all the consumers treat the variables viz. attitude towards the object, perceived behavioral control and subjective norm differently and specifically more importantly assign different values to these variables.

Now we have to find out the whether the behavioral intention is affected by all three variables.

Hypothesis 2:

Null Hypo H ₀	All three elements, attitude towards the object, subjective norms & perceived behavioral control do not affect behavioral intention equally.
Alt Hypo H ₁	All three elements, attitude towards the object, subjective norms & perceived behavioral control affect behavioral intention equally.

Here regression model has been used to analyze the relationship between all the elements.

In the table no. 8, 9 & 10 correlations are presented between attitude & behavioral intention, perceived behavioral control & behavioral intention and subjective norm & behavioral intention. In all cases significance level is 0.000 which means that the relationship between all the variables is significant. In the first case p value is 0.478, second case p value is 0.713 and in the third case p value is 0.767. The values indicate that the relationship is strong and except the variable 'attitude towards the object' (with a value of 0.478), each of the two variables are having very strong relationship between perceived behavioral control with behavioral intention and subjective norms with behavioral intention.

LIMITATIONS

Despite this, the study has some potential limitations. First, although intention to use internet banking was measured, the relationship between intention and behavior was not. However, this is not a serious problem because TPB predict behavior from intention. Additionally, there is substantial empirical support for the intention-behavior link. Ajzen and Madden found a similar result for TRA and TPB. Second, the sample size is mere 150 units, limited to some metro cities of the state Gujarat which may not represent the entire population. Third, various internet banking systems are used by many different people. In other situations, subjective norm may influence behavioral intention. An objective for future research would be, to identify the conditions under which Subjective Norms & Perceived Behavioral Control are important.

REFERENCES

1. AJZEN I. (1991). « The theory of planned behavior », *Organizational Behavior and Human Decision Processes*, vol. 50, pp. 179-211
2. Ajzen, I. & Driver, B. L. (1992), Applications of the theory of planned behavior to leisure choice. *Journal of Leisure Research*, 24, 207-224.
3. Ajzen, I. & Madden, T. J. (1986). Prediction of goal-directed behavior: Attitudes, intentions, and perceived behavioral control. *Journal of Experimental Social Psychology*, 22, 453-474.
4. AJZEN, I. (1985). From intentions to actions: A theory of planned behavior. In J. Kuhl & J.
5. Beckmann (Eds.), *Action Control: From cognition to behavior* (pp. 11- 39). Heidelberg: Springer.
6. Ajzen, I. (1991). The theory of planned behavior, *Organizational Behavior and Human Decision Processes*, 50, 179-211

7. Ajzen, I. and M. Fishbein (1977), "Attitude-behavior relations: A theoretical analysis and review of empirical research." *Psychological Bulletin* 84: 888-918
8. Ajzen, I., Ed. (1985). *From intentions to actions: A theory of planned behavior.* Action
9. BANDURA A. (1982), Self-efficacy mechanism in human agency, *American Psychologist* 37 (2) 122-147
10. Bandura, A. (1977). Self-efficacy: Toward a unified theory of behavioral change. *Psychological Review*, 84, 191-215
11. Bandura, A. (1982). Self-efficacy: Mechanism in human agency. *American Psychologist*, 37, 122-147
12. Catania, C. A. (1998). *Learning.* New jersey, Prentice Hall control: From cognition to behavior. Berlin, Springer-Verlag
13. Davies, J. D., G. R. Foxall, et al. (2002). "Beyond the intention - behaviour mythology: an integrated model of recycling behaviour." *Marketing theory* 2: 29-113
14. Davis, F.; Bagozzi, R.; and Warshaw, R. (1989), User Acceptance of Computer Technology: A Comparison of Two Theoretical Models. *Management Science*, Volume 35, 1989, pp. 982-1003
15. Fishbein, M., and I. Ajzen (1975), *Belief, Attitude, Intention and Behavior*, Reading, Addison-Wesley
16. Fishbein, M., Ed., (1973), *The prediction of behavior from attitudinal variables*, *Advances in Communications Research*, New York, Harper & Row
17. Fishbein, M.A. Et Ajzen, I. (1975). *Belief, attitude, intention and behavior: an introduction to theory and research*, Reading, MA, Addison Wesley
18. Foxall, G. R. (2001). "Foundations of consumer behaviour analysis," *Marketing theory* 1(2): 165-199
19. Foxall, G. R. (2005). *Understanding Consumer Choice*, London, Palgrave Macmillan
20. Grandy, T., "Banking in E-space", *The banker*, Vol. 145, December 1995, pp. 74-75
21. Liska, A. E.(1984). A critical examination of the causal structure of the Fishbein/Ajzen attitude behavioral model, *Social Psychology Quarterly*, 47, 61-74
22. Lutz, R. J., Ed. (1991). *The role of attitude theory in marketing*, *Perspectives in Consumer Behavior*, Upper Saddle River, NJ, Prentice Hall
23. Netemeyer, R. G., S., Burton, et al. (1991), "A comparison of two models for the prediction of volitional and goal-directed behaviors: a confirmatory analysis approach." *Social Psychology Quarterly* 54: 87-100
24. Ryan, M. J. (1982). Behavioral intention formation: The interdependency of attitudinal and social influence variables. *Journal of Consumer Research*, 9, 263-278

25. Sheppard, B. H., Hartwick, J. & Warshaw, P. R. (1988), The theory of reasoned action: A meta-analysis of past research with recommendations for modifications and future research. *Journal of Consumer Research*, 15, 325-343
26. Sheppard, B.H., Hartwick J., & Warshaw., P.R. (1988), The theory of reasoned action: A meta-analysis of past research with recommendations for modifications and future research. *Journal of Consumer Research*, Vol. 15, 1988, pp. 325-343
27. Shih, Y. and Fang, K., "The Use of a Decomposed Theory of Planned Behavior to Study Internet Banking in Taiwan", *Internet Research*, Vol. 14, No. 3, 2004, pp. 213-223
28. Swanson, E. B., *Information System Implementation: Bridging the Gap between Design and Utilization*, Irwin, Homewood, IL, 1988
29. Taylor, S. & Todd, P. (1995), Decomposition and crossover effects in the theory of planned behavior: A study of consumer adoption intentions. *International Journal of Research in Marketing*, 12, 137-156
30. Turban, E., Lee, J., King, D. and Chung, H. M., *Electronic Commerce: A Managerial Perspective*, Prentice-Hall, Upper Saddle River, NJ., 2000

APPENDIX

Table 1: Demographic Data of the Respondents

Category	Value	Frequency	% age
Gender	Male	117	78.00%
	Female	33	22.00%
Age	<20	3	2.00%
	20-29	66	44.00%
	30-39	51	34.00%
	40-49	27	18.00%
	>50	3	2.00%
	Education	High School Or Less	9
Graduate		72	48.00%
Post Graduate		69	46.00%

Occupation	Student	27	18.00%
	Academics	21	14.00%
	Company Employee	63	42.00%
	Govt. Employee	6	4.00%
	Businessman	15	10.00%
	Self-employed	9	6.00%
	Other	9	6.00%

Table 2: Cronbach's alpha (Internal Consistency Reliability)

For finding the validity of the data available Cronbach's alpha (Internal Consistency Reliability) has been carried out. The results are shown in the below given table.

Item	PCB	A	SN	$\Sigma cb_k pf_k$	$\Sigma b_i e_i$	BI	$\Sigma nb_j mc_j$	Cronbach's alpha
PBC ₁	0.781							0.9156
PBC ₂	0.862							
PBC ₃	0.882							
PBC ₄	0.766							
A ₁		0.746						0.8999
A ₂		0.659						
A ₃		0.779						
A ₄		0.693						
SN ₁			0.845					0.8794
SN ₂			0.835					
SN ₃			0.814					
cb ₁ pf ₁				0.789				0.9118
cb ₂ pf ₂				0.808				
cb ₃ pf ₃				0.814				
b ₁ e ₁					0.818			0.8197
b ₂ e ₂					0.756			
b ₃ e ₃					0.501			
BI ₁						0.801		0.8504
BI ₂						0.754		
BI ₃						0.503		
nb ₁ mc ₁							0.850	0.7368

nb ₂ mc ₂							0.669
nb ₃ mc ₃							0.634

Table 3: Attitude Component

Range		Frequency	Percentage
From	To		
0	30	100	66.67%
31	60	40	26.67%
61	90	10	6.67%
91	120	0	0.00%
121	150	0	0.00%
151	180	0	0.00%

Table 4: Subjective Norm

Range		Frequency	Percentage
From	To		
0	30	80	53.33%
31	60	52	34.67%
61	90	18	12.00%
91	120	0	0.00%
121	150	0	0.00%
151	180	0	0.00%

Table 5: Perceived Behavioral Control

Range		Frequency	Percentage
From	To		
0	30	12	8.00%
31	60	31	20.67%
61	90	19	12.66%
91	120	35	23.33%
121	150	49	32.67%
151	180	4	2.67%

Table 6: Behavioral Intention

Range		Frequency	Percentage
From	To		
0	30	13	8.67%
31	60	44	29.33%
61	90	62	41.33%
91	120	23	15.33%
121	150	3	2.00%
151	180	5	3.33%

Table 7: Test Statistics

	Attitude	Subjective Norm	Perceived Behavioral Control	Behavioral Intention
Chi-Square (a, b, c & d)	9.400	14.400	9.040	15.520
Degree of freedom	32	34	35	38
Asymp. Sig.	1.000	.999	1.000	1.000

Table 8: Correlations between Attitude and Behavioral Intention

		Attitude	Behavioral Intention
Attitude	Pearson Correlation	1	0.478**
	Sig. (2-tailed)		0.000
	N	150	150
Behavioral Intention	Pearson Correlation	0.478**	1
	Sig. (2-tailed)	0.000	
	N	150	150

** Correlation is significant at the 0.01 level (2-tailed).

Table 9: Correlations between Subjective Norm and Behavioral Intention

		Subjective Norm	Behavioral Intention
Subjective Norm	Pearson Correlation	1	0.713**
	Sig. (2-tailed)		0.000
	N	150	150
Behavioral Intention	Pearson Correlation	0.713**	1
	Sig. (2-tailed)	0.000	
	N	150	150

** Correlation is significant at the 0.01 level (2-tailed).

Table 10: Correlations between Perceived Behavioral Control and Behavioral Intention

		Perceived Behavioral Control	Behavioral Intention
Perceived Behavioral Control	Pearson Correlation	1	0.767**
	Sig. (2-tailed)	.	0.000
	N	150	150
Behavioral Intention	Pearson Correlation	0.767**	1
	Sig. (2-tailed)	0.000	.
	N	150	150

** Correlation is significant at the 0.01 level (2-tailed).