

## Online Consumer Behavior - An Analysis with the Theory of Planned Behavior

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### ABSTRACT

*The aim of present study is to examine factors that affecting the formation attitude and their impact on purchase behavior in decision making process. This research is based on data that obtained through a survey study. In this study, the hypotheses were presented considering the variables were associated with perceived risk and technology acceptance and TAM2 model that in 2000 by Venkatesh & Davis 2000 was presented Hypotheses were tested by SPSS AMOS (version 21) software and finally became clear that some of the factors have the strong impact on consumers buying intent.*

**Keywords:** shopping intention, perceived risk, perceived usefulness, and online shopping.

### INTRODUCTION:

Digital marketing is growing at a rapid pace in most of the countries in the world. While all other Industries are struggling with a low growth rate, Digital marketing industry is booming high and already achieved a growth rate of 30% last recent past years. Some of the applications of E-Marketing, such as order tracking, online banking, and payment systems are the main reason for growth. Digital Marketing has reached almost all the business sectors in India. E-Commerce has transformed the way business is done in India. The Indian e-commerce market is expected to grow to US\$ 200 billion by 2026 from US\$ 38.5 billion as of 2017.

### Theoretical background of the study:

The basic assumption of Technology Acceptance Model (TAM) is that intention is a major determinant of behavior. TAM suggests two important determinants of behavior intention are Perceived Usefulness (PU) and Perceived Ease of Use (PEOU). TAM basically designed to assess the worker adoption of technology in the workplace (Davis 1989). TAM initial gave very low importance of subjective norms — “the perception that most people who are important to the individual think he/she should or should not perform the behaviour in question” (Ajzen and Fishbein, 1991, p.19). Ajzen theory of planned behavior, subjective norms plays important role in determining behavior intent. Laroche, Yang, Goutaland and Bergeron (2005) perceived risk plays important online marketing in comparison to the off line marketing. Koufaris, Kambil, Labarbera (2001) suggest an enjoyment role in on-line purchase. The present study include social norms, shopping enjoyment and perceived risk in TAM for determining shopping intention.

### Study Objectives:

- To analysis, the social norms effect on the shopping intention of the online shopper
- To analysis, the perceived risk effect on the shopping intention of the online shopper.

Study variables are perceived usefulness, perceived ease of use, social norms, shopping enjoyment, shopping intent, perceived risk, and online buyer behavior.

### **Attitude towards online marketing:**

Kim and Park (2005) claim consumers' information search behavior affects their attitude towards online shopping behavior. Bianchi and Andrews (2012) report that Consumers' attitude towards purchasing online has a positive influence on their intentions to continue purchasing online. Consumer attitudes positively influence consumer shopping intentions (Chen, Zhang, Jin & Yang 2018). Attitude towards security issues is negatively associated with online purchase reported by Das, Echambadi, McCardle, and Luckett (2003) and he also suggests that greater the security concerns and likely lower online purchase. Attitude toward Internet shopping positively influences intention to shop online (Shim, Eastlick, Lotz, & Warrington 2001).

**H1:** Attitude toward online shopping is positively related to the behavioral intention of online shopper.

### **Perceived risk:**

Perceived online risk has a negative influence on consumers' attitudes towards continuing to purchase online (Bianchi & Andrews 2012); smaller effect than trust reported by (Buttner & Goritz 2008). Chen, Zhang, Jin and Yang (2018) reports that perceived risk has significant negative impact on shopping intention. Pires, Stanton, Eckford, (2004) claims that increased internet purchasing experience reduces perceived risk of the online consumer.

**H2:** Perceived risk is a significant negatively influence shopping attitude towards of the shopper.

**H3:** Perceived risk is a significant negatively influence of on shopping intentions.

### **Perceived usefulness:**

Davis (1989) defines Perceived Usefulness (PU) as "the degree to which a person believes that using a particular system would enhance his or her job performance." Perceived usefulness has a significant impact on the online shopping intention is reported by Kim and Malhotra (2005) ; Xie, Zhu, Lu,& Xu (2011), but in contrast, Aghdaie, Piraman, and Fathi (2013) claims that perceived usefulness doesn't have the significant influence on shopping intention. Perceived risk of online shopping and perceived ease of use of the Web site both have significant influence on attitude towards online purchasing (Heijden, Verhagen, & Creemers, 2001).

**H4:** PU is a significant positive influence the shopping attitude of the online shopper.

### **Perceived ease of use:**

Davis (1989) defined Perceived Ease of Use (PEOU) as the "degree to which a person believes that using a particular system would be free from effort." Zhang, Prybutok, and Koh 2007; Makame, Kang, and Park (2014) said that there is a positive significant relationship between PEOU with PU. Chen (2019) also reports that PEOU has a positive effect on customers' intention. Perceived ease of use has a significant correlation with online shopping behavior. (Aghdaie et al. 2013)

**H5:** PEOU is a significant positive influence the attitude towards to shopper.

### **Social norms:**

Ajzen (1991) defined "person's perception that most people who are important to him think he should or should not perform the behavior in question" (p. 195). Leeraphong & Mardjo (2013); Xie et al (2011) said that social norms significant influence on buying intention of the online shopper. ). Lim, Osman, Salahuddin, Romle, and Abdullah (2016) claims that subjective norm is significant influence on the buying intent but not significantly influence on the actual purchases.

**H6:** Social norms is significantly negatively influence to behavioral intention of the online shopping activities.

### **Shopping enjoyment:**

Koufaris et al (2001) suggest that shopping enjoyment have significant positive influence on online shopping and attitude towards online shopping.

**H7:** Shopping enjoyment is positively related to attitude towards online shopping.

**H8:** Shopping enjoyment is positively related to intention to shop in online.

### **Questionnaire contraction and Data processing:**

The present study uses primary data for the analysis. Data were collected on the basis self-administer questionnaire. Overall, 250 questionnaires were distributed and 171 respondents were received. The study area is Thanjavur Dist.

The questionnaire was designed on the basis of previous studies. Five items were used to measure the Perceived Usefulness (PU) and four items were used to measure Perceived Ease of Use (PEOU), and both PU and PEOU were adopted from Davis et al. (1989) and (Venkatesh & Davis 2000) respectively and for measuring Subjective

Norm 2 items were adopted Ajzen (1991) and Perceived risk four items were adopted from Wang et al (2018).shopping intent was adopted from Ghani et al. (1991) and online buyer behavior was measured on the basis of frequency and quantities they usually brought. All the questions were designed on the five-point Likert scale. The present study uses Measured Structural Equation Model (MSEM) to test hypotheses which are shown in the research design (figure no: 1), before running the model, reliability and convergent validity were tests. To improve average variance (AVG) two items have removed (1 from PU and 1 from PEOU). The validity of the data set has been testing by master validity plugin which is available in stat wiki .com (Gaskin & Lim 2016).

### **STATISTICAL ANALYSIS:**

For analyzing data AMOS software was used. In order to test the research hypotheses, measured structural equation model was used. Before running the model, data reliability and validity was tested. Exporter factor analysis and confirmatory factor analysis were executed. The below table shows that the study data has no validity issues. For testing reliability, cronbach alpha was calculated. All the variable shows acceptable alpha (level.70) in this study. Measured structural equation model used to test the hypotheses, shopping attitude was considered as dependent variable and perceived usefulness, perceived risk, perceived ease of use and shopping enjoyment as independent variable. Next shopping intent as the dependent variable and attitude, perceived risk, social norms shopping enjoyment taken as independent variable.  
Variable observing measures

#### **Perceived Usefulness (Davis 1989):**

Using the system improves my performance in my online shopping.  
Using the system in my shopping increases my productivity.  
Using the system enhances my effectiveness in my shopping behavior.  
I find the system to be useful in my online shopping.  
Perceived Ease of Use ((Venkatesh & Davis 2000)  
Interacting with the does shopping web site not require a lot of my mental effort.  
I find the online shopping to be easy to use.  
I find it easy to get the online shopping to do what I want it to do.

#### **Attitude:**

A1. Shopping by mobile phone is a good idea  
A2. I am favorable toward mobile shopping  
A3. Shopping by mobile phone is a wise idea  
A4. I am positive about mobile shopping

#### **Perceived risk (Wang 2018):**

1. Return and exchange opportunities are not as good on the internet as in the offline shop  
2. A risk when buying groceries via the internet is receiving low-quality products or incorrect items  
3. Security around payment on the internet is not good enough  
4. There are too many untrustworthy shops on the internet

#### **Social norms (Ajzen 1991):**

1. People who influence my behavior think that I should use the online shopping  
2. People who are important to me think that I should use the shopping.  
3. I am considering my friends suggestions in online shopping.

#### **Shopping intention (Lim et al., 2016):**

1. Given the chance, I intend to shop online  
2. I expect to continue online shopping in the future  
3. I intend to purchase products or services via online

#### **Shopping Enjoyment (Lim et al., 2016):**

1. I found my online shopping interesting.  
2. I found my online enjoyable.  
3. I found my online shopping exciting.

**Master Validity Table:**

The below table shows that data has no validity and reliability issues for executing SEM which run through AMOS software. The tables shows that there is no AVE, CR, correlations issues in the data set.

**Table no 1**

PEOU- Perceived Ease of Use, PU- Perceived Usefulness, SN- Social Norms SE- Shopping Enjoyment, ATT- Attitude, PR- Perceived risk, SI- Shopping intention.

**Validity Concerns:** this is no validity issue in the data set, suggested by master validity plugin by Gaskin & Lim 2016.

**-Significance of Correlations:**

† p < 0.100 \* p < 0.050  
 \*\* p < 0.010 \*\*\* p < 0.001

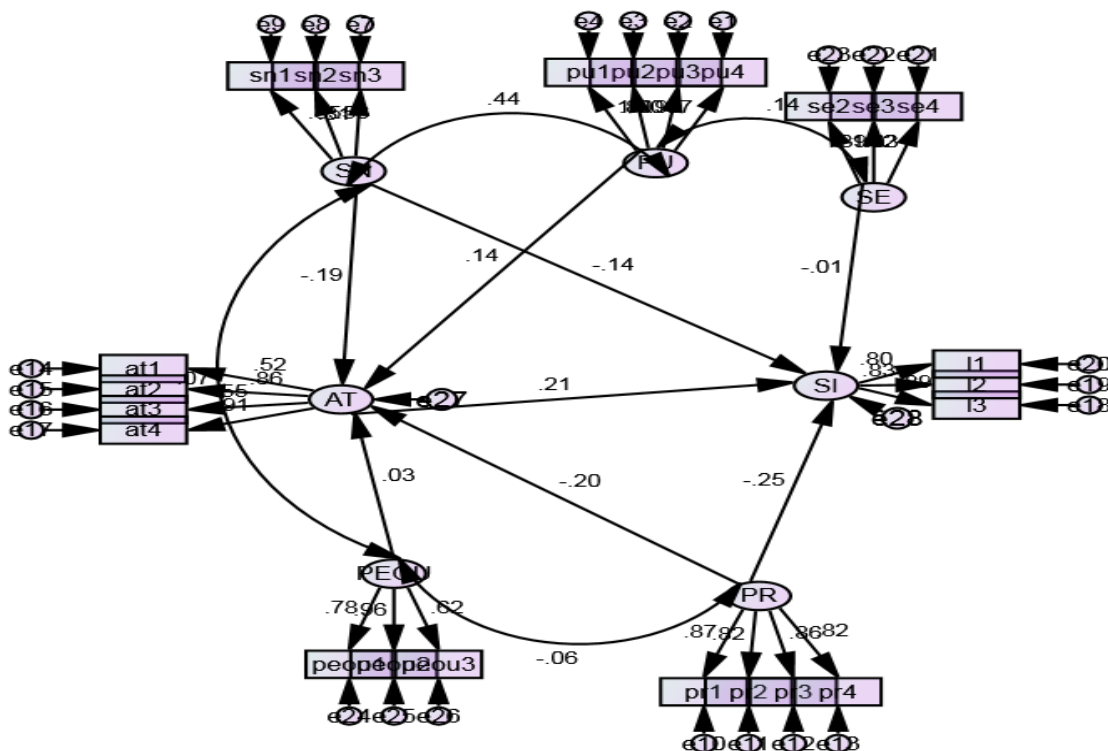
The above table shows (Table no: 1) shows that are validity issues in the data set such as composite reliability and average variance extraction and discriminate issues.

**RESEARCH DESIGN:**

The research design shows the proposed model of examination of variables in the study. The present study examines the effect of PEOU on PU and PR effect on PU and BI. PU and PR are vital factor on the online consumer behavior. (MSEM output in figure)

	CR	AVE	MSV	MaxR(H)	1	2	3	4	5	6	7
PU	0.888	0.616	0.29	0.905	0.785						
PEOU	0.876	0.703	0.103	0.878	-0.321***	0.838					
ATT	0.878	0.707	0.317	0.896	0.413***	-0.318***	0.841				
SI	0.789	0.556	0.383	0.8	0.510***	-0.183**	0.393***	0.746			
PR	0.799	0.572	0.383	0.813	0.539***	-0.311***	0.563***	0.619***	0.756		
ENY	0.96	0.924	0.123	1.007	0.321***	-0.163**	0.262***	0.342***	0.350***	0.961	
SN	0.857	0.697	0.154	1.001	0.175**	-0.164**	0.347***	0.213**	0.392***	0.139*	0.835

**Figure No: 1**



(PU - Perceived usefulness, PEOU-Perceived Ease of Use, SN-Social Norms, PBC-Perceived Behavior Control, BI -Buying Intent, OBB-online Buyer Behavior, PR-perceived Risk)

**RESULT AND INTERPRETATION:**

**Regression Weights: (Group number 1 - Default model)**

**Table No: 2**

				<b>Estimate</b>	<b>S.E.</b>	<b>C.R.</b>	<b>P</b>
(H1)	AT	<---	SN	-.084	.035	-2.410	.016
(H2)	AT	<---	PEOU	.014	.033	.413	.680
(H3)	AT	<---	PU	.065	.034	1.907	.056
(H4)	AT	<---	PR	-.087	.030	-2.932	.003
(H5)	SI	<---	AT	.362	.118	3.067	.002
(H6)	SI	<---	PR	-.184	.048	-3.842	***
(H7)	SI	<---	SE	-.004	.041	-.101	.920
(H8)	SI	<---	SN	-.100	.049	-2.034	.042

**Model fit summary:** Hu and Bentler (1999) suggest five measures and threshold for SEM fitness and are table below (table no.3) and present model shows excellent fitness in all five measures.

**Table No: 3**

<b>Measure</b>	<b>Estimate</b>	<b>Threshold</b>	<b>Interpretation</b>
CMIN	474.687	--	--
DF	240	--	--
CMIN/DF	1.978	Between 1 and 3	Excellent
CFI	0.956	>0.95	Excellent
SRMR	0.099	<0.08	Acceptable
RMSEA	0.06	<0.06	Excellent
PClose	0.024	>0.05	Acceptable

**Table No: 4**

<b>Measure</b>	<b>Terrible</b>	<b>Acceptable</b>	<b>Excellent</b>
CMIN/DF	> 5	> 3	> 1
CFI	<0.90	<0.95	>0.95
SRMR	>0.10	>0.08	<0.08
RMSEA	>0.08	>0.06	<0.06
PClose	<0.01	<0.05	>0.05

**RESULTS OF STUDY:**

H1 and H4 are accepted, this implies that social norms and perceived risk have a significant negatively influence on the shopping attitude of the online consumer this finding in line with Pavlou (2003)

H3 and H4 was rejected, this implies that PEOU and PU both failed to significantly influence on online shopping attitude, but PU almost approaching significant positive effect. The results partially supports (Xie et al., 2011).

H6 and H8 were accepted social norms and perceived risk (PR) have a significant negative influence on the buying intent, these findings in line with Pavlou (2003); Nai-Hua Chen 2019. H7 is also accepted, this implies that shopping attitude significantly positively influence the online shopping intention.

H5 was rejected, this shows that shopping enjoyment failed to significantly influence the shopping intention in contrast with Koufaris et al (2001).

## CONCLUSION:

Shopping attitude has a significant impact on online shopping intention. PR and SN plays negative role in online shopping and the marketer has to make effects to create loyalty that will change social norms in favor of the online market. To reduce the PR, the marketer has to make some effort reduce the transition difficulties.

## REFERENCES:

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211. doi:10.1016/0749-5978(91)90020-t.
- Amiri Aghdaie, S. F., & Yousefi, E. (2011). The Comparative Analysis of Affecting Factors on Purchasing Domestic and Imported Cars in Iran Market - Using AHP Technique. *International Journal of Marketing Studies*, 3(2). doi:10.5539/ijms.v3n2p142.
- Bianchi, C., & Andrews, L. (2012). Risk, trust, and consumer online purchasing behaviour: a Chilean perspective. *International Marketing Review*, 29(3), 253-275. doi:10.1108/02651331211229750.
- Chen, N. (2019). Extending a TAM–TTF model with perceptions toward telematics adoption. *Asia Pacific Journal of Marketing and Logistics*, 31(1), 37-54. doi:10.1108/apjml-02-2018-0074.
- Chen, W., Zhang, Q., Jin, M., & Yang, J. (2018). Research on online consumer behavior and psychology under the background of big data. *Concurrency and Computation: Practice and Experience*, e4852. doi:10.1002/cpe.4852.
- Das, S., Echambadi, R., McCardle, M., & Lockett, M. (2003). *Marketing Letters*, 14(3), 185-202. doi:10.1023/a:1027448801656.
- Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*, 13(3), 319. doi:10.2307/249008.
- Kim, J., & Park, J. (2005). A consumer shopping channel extension model: attitude shift toward the online store. *Journal of Fashion Marketing and Management: An International Journal*, 9(1), 106-121. doi:10.1108/13612020510586433.
- Kim, S. S., & Malhotra, N. K. (2005). A Longitudinal Model of Continued IS Use: An Integrative View of Four Mechanisms Underlying Postadoption Phenomena. *Management Science*, 51(5), 741-755. doi:10.1287/mnsc.1040.0326.
- Kim, S., & Jones, C. (2009). Online shopping and moderating role of offline brand trust. *Direct Marketing: An International Journal*, 3(4), 282-300. doi:10.1108/17505930911000874.
- Koufaris, M., Kambil, A., & Labarbera, P. A. (2001). Consumer Behavior in Web-Based Commerce: An Empirical Study. *International Journal of Electronic Commerce*, 6(2), 115-138. doi:10.1080/10864415.2001.11044233.
- Laroche, M., Bergeron, J., & Goutaland, C. (2003). How intangibility affects perceived risk: the moderating role of knowledge and involvement. *Journal of Services Marketing*, 17(2), 122-140. doi:10.1108/08876040310467907.
- Laroche, M., Yang, Z., McDougall, G. H., & Bergeron, J. (2005). Internet versus bricks-and-mortar retailers: An investigation into intangibility and its consequences. *Journal of Retailing*, 81(4), 251-267. doi:10.1016/j.jretai.2004.11.002.
- Leeraphong, A., & Mardjo, A. (2013). Trust and Risk in Purchase Intention through Online Social Network: A Focus Group Study of Facebook in Thailand. *Journal of Economics, Business and Management*, 314-318. doi:10.7763/joebm.2013.v1.68.
- Lim, Y. J., Osman, A., Salahuddin, S. N., Romle, A. R., & Abdullah, S. (2016). Factors Influencing Online Shopping Behavior: The Mediating Role of Purchase Intention. *Procedia Economics and Finance*, 35, 401-410. doi:10.1016/s2212-5671(16)00050-2.
- Lim, Y. J., Osman, A., Salahuddin, S. N., Romle, A. R., & Abdullah, S. (2016). Factors Influencing Online Shopping Behavior: The Mediating Role of Purchase Intention. *Procedia Economics and Finance*, 35, 401-410. doi:10.1016/s2212-5671(16)00050-2.
- Makame, W. H., Kang, J., & Park, S. (2014). Factors influencing electronic commerce adoption in developing countries: The case of Tanzania. *South African Journal of Business Management*, 45(2), 83-96. doi:10.4102/sajbm.v45i2.126.
- Pires, G., Stanton, J., & Eckford, A. (2004). Influences on the perceived risk of purchasing online. *Journal of Consumer Behaviour*, 4(2), 118-131. doi:10.1002/cb.163.

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- Shim, S., Eastlick, M. A., Lotz, S. L., & Warrington, P. (2001). An online prepurchase intentions model. *Journal of Retailing*, 77(3), 397-416. doi:10.1016/s0022-4359(01)00051-3.
- Van der Heijden, H., Verhagen, T., & Creemers, M. (2003). Understanding online purchase intentions: contributions from technology and trust perspectives. *European Journal of Information Systems*, 12(1), 41-48. doi:10.1057/palgrave.ejis.3000445.
- Venkatesh, V., & Davis, F. D. (2000). A Theoretical Extension of the Technology Acceptance Model: Four Longitudinal Field Studies. *Management Science*, 46(2), 186-204. doi:10.1287/mnsc.46.2.186.11926.
- Xie, G., Zhu, J., Lu, Q., & Xu, S. (2011). Influencing factors of consumer intention towards web group buying. *2011 IEEE International Conference on Industrial Engineering and Engineering Management*. doi:10.1109/ieem.2011.6118146.
- Zhang, X., Prybutok, V. R., & Strutton, D. (2007). Modeling Influences on Impulse Purchasing Behaviors During Online Marketing Transactions. *Journal of Marketing Theory and Practice*, 15(1), 79-89. doi:10.2753/mtp1069-6679150106.

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