Online consumer behavior - an analysis with the theory of planned behavior

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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

Davis (1989) has developed a theory call Technology Acceptance Model (TAM), which formed on the basis Theory of Reasoned Action (TRA), TAM was used to access the computer acceptance in the workplaces. TAM is measured by the intention and the influence of attitude, perceived usefulness, and perceived ease of use toward the intention to use. Ajzen (1991) includes social norms and perceived behavior control in the Theory of Planned Behavior (TPB), is the extension of the Theory of Reasoned Action (TRA), and he believes it could explain more about behavior. TAM model is used in this present study to explain the online consumer behaviors with the inclusion of two constructs from TPB. There are social norms and PBC.

Study objectives:

To analysis, the social norms effect on the buying intention of the online shopper.

To analysis the perceived risk effect on the buying intention of the online shopper.

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

Davis (1989) said that Perceived Usefulness (PU) is “the degree to which a person believes that using a particular system would enhance his or her job performance”. Perceived usefulness can be considered as the extent to which consumers feel the online shopping could add value and efficacy to them when performing online shopping (Lai & Zhaocheng Wang 2012). Convince, efficiency in operation and payment methods are the main elements of perceived usefulness. Rohm and Swaminathan’s (2004); Bhatnagar and Ghose (2004) found that convenience is the main reason for consumer go with online shopping. Convenience is the main motive for a consumer choosing online shopping (Robinson, Dall’Olmo Riley, Rettie, & Rolls-Willson 2007). Perceived usefulness have a significant impact on the shopping intention to purchase the via internet (Kim & Jones 2009; Xie, Zhu, Lu, & Xu 2011), but Aghdaie et al. (2011) said that perceived usefulness doesn’t have the significant influence on shopping intention.

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”. PEOU role in online shopping contest is how to test in many studies but results do not consist of one and another. Perceived ease of use has a significant correlation with online shopping behavior (Aghdaie, Piraman, and Fathi 2013). Nai-Hua Chen (2019) found that PEOU has a positive effect on customers’ intention. Makame, Kang, and Park (2014) claims that Perceived ease of use has a positive impact on perceived usefulness. Zhang, Prybutok, and Koh 2006 said that there is a positive significant relationship between PEOU with PU.

Perceived risk:

Perceived risk has a negative effect on PU but not significant Nai-Hua Chen 2019. Although risky but online shopping also brings benefits to consumers: consumers access many booths at the same time (Nguyen Thanh Do and Ha Ngoc Thang, 2014)

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. Social norms have a direct influence on buying intention of the online shopper witness in many study results (Leeraphong&Mardjo, 2013; Xie et al., 2011). Lim, Osman, Salahuddin, Romle, and Abdullah (2016) claims that subjective norm have a significant effect on online purchase intention but does not significantly influence actual online shopping’s. He, Lu, and Zhou (2008) concludes that the recommendations by third parties (subjective norm)
significantly impacted the purchase intention of the online consumers. Zing et al. 2006 found that subjective norms does not influence the intention to shop 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 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 for measuring Subjective Norm, Perceived Behavioral Control each 4 items were adopted Ajzen (1991) and Perceived risk 4 items were adopted from Laroche et al (2005). Buying intent was adopted from Pavlou (2003) 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 structural equation model 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 has 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).
MASTER VALIDITY PULGIN

Table no: 1

**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

|      | CR  | AVE | MSV | MaxR(H) | 1   | 2   | 3   | 4   | 5   | 6   | 7   |
|------|-----|-----|-----|---------|-----|-----|-----|-----|-----|-----|-----|
| PU   | 0.907 | 0.734  | 0.097 | 1.001     | 0.857 |
| BI   | 0.978 | 0.936  | 0.013 | 0.998     | 0.033 | 0.968 |
| PEOU | 0.949 | 0.862  | 0.089 | 1.014     | 0.016 | 0.019 | 0.929 |
| SN   | 0.937 | 0.833  | 0.028 | 1.016     | 0.049 | -0.005 | 0.046 | 0.913 |
| PBC  | 0.866 | 0.707  | 0.039 | 1.026     | -0.128† | 0.114 | 0.078 | 0.041 | 0.841 |
| PR   | 0.826 | 0.657  | 0.046 | 1.163     | 0.068 | -0.095 | 0.142† | 0.168* | -    | 0.198** | 0.81 |
| OBB  | 0.725 | 0.577  | 0.097 | 0.805     | 0.312* | 0.298* | 0.053* | -0.054 | 0.193 | 0.215 | *   | 0.759 |

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.
Figure No:1

(PEU - 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:

| Hypothesis | Pathway | Estimate | S.E. | C.R. |
|------------|---------|----------|------|------|
| H1         | P. USEF <--- P. USF | .150 | .116 | 1.290 | .197 |
| H2         | P. USEF <--- P. RISK | -.071 | .076 | -.937 | .349 |
| H5         | B. INT <--- P. USEF | .181 | .082 | 2.195 | .028 |
| H4         | B. INT <--- PBC | -.128 | .089 | -1.426 | .154 |
| H6         | B. INT <--- Social norms | -.092 | .132 | -.702 | .483 |
| H3         | B. INT <--- P. RISK | .135 | .082 | 1.659 | .097 |
| H7         | B. INT <--- Social norms | .190 | .061 | 3.096 | .002 |

Table: 2

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

Results of study:

H5 and H7 are accepted, this implies that PU has a significant impact on the buying intent of the online consumer this finding in line with Enrique et al. (2008); Kim & Song (2010); Xie et al. (2011). H7 was accepted, buying intent has a significant impact on online shopping behavior. H1, H2, H3, H4, and H6 were rejected. In the present study, perceived risk and social norms have a negative impact on the buying intent but the impact is not statistically significant.

Conclusion:

Social norms and perceived risk (PR) have a negative impact on the buying intent in consist with Pavlou (2003); Nai-Hua Chen 2019 and this has to be reduced to improve buying intent. Buying intent has a significant impact on OBB. The reduction of PR will improve the online market and the marketer has to make efforts to create a positive image that will change social norms in favor of the online market

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| Measure  | Estimate | Threshold | Interpretation |
|----------|----------|-----------|----------------|
| CMIN     | 246.967  | --        | --             |
| DF       | 157      | --        | --             |
| CMIN/DF  | 1.573    | Between 1 and 3 | Excellent |
| CFI      | 0.958    | >0.95     | Excellent      |
| SRMR     | 0.074    | <0.08     | Excellent      |
| RMSEA    | 0.047    | <0.06     | Excellent      |
| PClose   | 0.632    | >0.05     | Excellent      |
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