

Factors Affecting Consumers' Online Shopping Behaviour: A Weight Analysis and Meta-Analysis

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Abstract: This study explores the main factors that affect consumers' buying behaviour towards e-retailers. The aim of the research is to synthesize finding from existing research to make a conclusion. To identify the most used constructs and their significant relationship with each other, a weight-analysis and meta-analysis technique were used. A total of 75 quantitative research studies were used for this study. The study identifies the 15 'best' predictors of intention to use, 2 best predictors of attitude and 1 best predictors of use behaviour in the weight analysis technique. These best predictors also found statistically significant in meta-analysis. This research also discussed about implication for theory and practiced, research direction for future studies and limitations of this study.

Keywords: consumer online shopping behaviour, intention to use, use behaviour, weight analysis, meta-analysis

1. INTRODUCTION

The e-retail market in India is expected to reach \$200 billion by 2026 from \$15 billion in 2016 (Akamai India, 2018). With the help of 300-350 million online shoppers India's online Gross Merchandise Value (GMV) expected to reach \$100 to 120 billion by 2025 (The Economic Times, 2020). Online shopping provides convenience to buyers because they can place order any time and from anywhere with the help of e-retailers' mobile app or website, pay via debit/ credit cards/cash on delivery and goods delivered within a specified time period to their address. With the rise of number of local and global retailers offering the merchandize only through online channel or along with traditional brick and mortar stores, e-retailing growing rapidly nowadays (Thakur & Srivastava, 2015). The online sale of consumers goods by store base retailers or pure-play e-retailers' to the public is called online retail (A.T. Kearney, 2015).

Many researchers conducted the empirical studies on factors affecting online buyers' behaviour related to online setting in different countries or regions. In these studies, researchers identified a lot of factors or variables or constructs with different research models which affects online buyers' behaviour. Different studies were conducted in different countries, so there were a difference in the results of most of these studies according to country in which the studies were conducted, sample size, target population and time(year) of study conducted, so the result or findings from these studies are often inconclusive and inconsistent. Thus, it is very difficult task to make a conclusion about factors' affecting online consumers

behaviour without describe, evaluate, synthesize and integrate the finding of these studies. Hence, the sole objective of this study is to identify the main factors that affect consumers' buying behaviour when they shop online. Therefore, it is important and essential to highlight, summarise and clarify the results of existing studies in order to provide a comprehensive picture of online buyers' behaviour. This study focuses to identify the determinants of consumers' behaviour towards online shopping or e-retailers with the help of meta-analysis because, some researcher found meta- analysis is a better tool than traditional literature review(Borenstein et al., 2009; Hunter and Schmidt, 2004). Meta-analysis is an effective to integrate the result of different studies systematically(Liu et al., 2019). A meta-analysis with weight analysis(Jeyaraj et al., 2006) provides one of the strong analyses(Rana et al., 2015) and contribute to a clear, concise and conclusive view(Baptista & Oliveira, 2016) of determinants of consumer behaviour in online environment. The results of weight analysis with meta-analysis for factors affecting consumers' online buying behaviour can be considered as a guideline for future studies. Besides, to identify the factors affecting consumers' buying behaviour, this research also examines the trends of theories used by past researchers as well as subgroup analysis according to country and years of study conducted. The paper is structured as: background and theoretical framework; research methodology; the results of weight analysis, meta- analysis publication bias; discussion part of our finding; theory and implication of the study; conclusion and finally limitations of the study and direction for future research.

2. BACKGROUND AND THEORETICAL FRAMEWORK

Online shopping behaviour refers to consumers' behaviour to purchase from e-retailers/online shopping sites instead of traditional shopping style like brick and mortar. To understand and analyse the consumers' behaviour towards online shopping or to identify the factors that consumers consider during shopping from e-retailers or shopping sites, a review of past researches in this area or related areas of information technology, theories and models used by these researches is necessary. In this section, a summary of all the included studies like year, sample size, technology, country where these studies is conducted and theoretical models are reviewed and summarized. Many studies have investigated the factors affecting online consumers' purchase behaviour but literature on this area is disintegrate and distinct. Research has focused on various context, such as m-shopping and online shopping(Celik, 2016; Chopdar & Sivakumar, 2019; Dewi et al., 2020; Raman, 2019; Rehman et al., 2019; S. Singh & Srivastava, 2018; Tak & Panwar, 2017; Tandon & Kiran, 2018), e-commerce or m-commerce (Chi, 2018; Khoi et al., 2018; Sim et al., 2018; Wang, 2008), e-banking (Ahmad et al., 2020), e-learning(El-Masri & Tarhini, 2017; Farooq et al., 2017; Gunasinghe et al., 2020; Zwain, 2019), m-payment(K. Gupta & Arora, 2020; Patil et al., 2020), travel apps(A. Gupta et al., 2018) and online food delivery app(Gunden et al., 2020).As already discussed that different studies for determinants of consumer behaviour in online setting have been fragmented and contradictory. Researchers have been taken different approaches to identify the factors affecting online consumers' behaviour. Some studies use specific theories, models and framework as presented in Table 7. Table 8 presents a description of all the main factors with definitions. A complete list of articles or studies reviewed and analysed by the researchers is presented in Table 1. Followings are the description of the IS theories used by past researchers that was reviewed in this research.

Theory of Reasoned Action

TRA is one of the most fundamental and influential theories of human behaviour by(Ajzen, 1991). Fishbein and Ajzen (1975) proposed that attitudes and subjective norms are significant predictor of behavioural intention of a particular action, such as shopping online. Furthermore, it has been shown a person's specified behaviour is determined by behavioural intention to perform an action.

The Technology Acceptance Model (TAM)

The root of TAM is the extension of TRA with two technology acceptance measures- perceived usefulness (PU) and perceived ease of use (PEOU) that show how users accept and use of new technology (Davis et al., 1989). The main purpose of TAM is to check the impact of two external variables (PU and PEOU) to internal variable (attitude and purchase intention). Perceived usefulness (PU) is defined as the subjective probability of potential user that using a certain technology (online shopping) will increase his or her action and perceived ease of use (PEOU) refers to the degree to which the potential user expects the technology to be free of effort (Davis et al., 1989). TAM suggests about the determinants of behaviour towards a new technology.

The Innovation Diffusion Theory

The Innovation Diffusion Theory named as “Diffusion of Innovations (DOI)” was first proposed by Roger in 1962 in the book entitled DOI with four elements include: innovation, communication channel, time and social system. Rogers (1983) has defined Innovation as “an idea, practice, or object that is perceived as new by an individual or other unit of adoption.” This theory is used to predict and explain the adoption behaviour and diffusion behaviour towards innovation technology with main independent factors including complexity of technology, compatibility of technology, relative advantage (Rogers, 1962).

UTAUT, UTAUT2, UTAUT3

Unified Theory of Acceptance and Use of Technology by Venkatesh et al. (2003) is one of the most comprehensive theory that used eight technology used models or theories to develop UTAUT that comprises four variables, namely performance expectancy, effort expectancy, social influence and facilitating conditions as independent variables and Behavioural Intention and use behaviour of new technology as dependent variables. Age, gender, experience and voluntariness is used as a moderator in this theory (Venkatesh et al. 2003). Venkatesh et al. (2012) proposed an extended version of UTAUT model with three more factors namely hedonic motivation, habit and price from employee technology acceptance context to consumer technology acceptance context, which is popularly known as UTAUT2. UTAUT2 have been used by many researchers in diverse areas and found more capable for better prediction of behavioural intention and use behaviour (K. Gupta & Arora, 2020). Farooq et al. (2017) extended the UTAUT2 model with new variable ‘Personal Innovativeness in IT’ and renamed it as UTAUT3.

Theory of Planned Behaviour (TPB)

Ajzen (1991) developed the theory of planned behaviour as a extension of theory of reasoned action (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975) that links beliefs to behaviour. The TPB suggest that an individuals’ behavioural intention is depends on three core components namely attitude, subjective norms and perceived behavioural control while behavioural intention is good determinants of human use behaviour. Thus, a person with a favourable attitude, subjective norms, perceived behavioural control and intention determine the prospective behaviour of a particular person (Ajzen, 1991).

The Social Cognitive Theory SCT

The social cognitive theory is a learning theory of explaining human behaviour in which three primary behavioural drivers: environmental factors, cognitive factors and behavioural factors have a triadic mechanism (Bandura, 1977, 1982). Social cognitive theory is widely accepted theory for individual behaviour that examines how a individuals adopt a particular behaviour (Bandura, 1977, 1982).

The stimulus-organism-response (S-O-R)

The stimulus-organism-response (S-O-R) framework describe the impact of environment stimuli ((e.g., colour, light, music, and scent), which affects organisms (consumers) and result as individual’s response (Mehrabian & Russell 1974). The organism is represented by cognitive (thoughts, belief and perception) and affective responses that mediate the relationships between the stimuli (atmospheric cues) and the

individual's responses. The response represents the final outcome the approach or avoidance behaviours of the consumer (Aggarwal & Rahul, 2017; Chang & Chen, 2008; Prashar et al., 2017).

3. RESEARCH METHODOLOGY

3.1 Selection criteria of included studies

In this study researchers are focused on synthesize the results of selected studies of last 15 years to check the overall relationship between variables or constructs.

1. Only such articles that published and studied after 2005 were accepted that written in English. This date has been chosen because after that e-shopping is widely accepted in India.
2. Only empirical study is included that measure key variables of intention to online purchase and actual behavior.
3. Only study include that measured intention to buy or actual buying/usage as outcome.
4. The study included from all countries, demographics like age, cultures, and from all context like B2C, B2B, e-banking, m-banking, e-retailing, e-tailing, e-shopping, e-commerce and m-commerce etc.
5. The study included that match assumptions of normality of sample or significantly large sample size.
6. The studies must include the sample size and correlation coefficient between components.

The sample for this study ranging from 2005 to 2020, a span of 15 years is when the research on e-retailing is took off. In order to locate the studies for further analysis, this study employed data from many sources: Google Scholar, ProQuest, Emerald Insight, the Wiley Online Library, Science Direct and Web of Science. After search, researcher found 780 studies related to keywords used for searching like online shopping, online retailing, e-retailing, e-tailing, mobile shopping, online purchase intention, intention to use, Intention to adopt, actual online purchase and online usage behavior. In addition to this to find out the relevant studies reference list of some selected studies were checked and searched them on Google Scholar database. The key authors in related research were identified and used their name as a search term in sir previously selected data base. 340 articles were duplicated or found same article on different data bases, they were excluded. Out of remaining articles only 440 articles were fully downloadable. After that each article opened and read by researchers so that it can be verified according to given criteria of selection of studies. Out of these articles mostly were qualitative studies and they did not provide statistical evaluation like sample size and coefficient correlation. Qualitative research and secondary database studies were excluded to avoid biases (Baptista & Oliveira, 2016). After the verification we found 180 quantitative articles that was matched with the research criteria. After that, we included 75 articles with 84 datasets for our research. List of all the included studies are shows in Table 1. The sample selected in this research found suitable when compared to other studies that were published in reputed journals, e.g. Blut et al. (2015) selected 89 studies, Ismagilova et al. (2020) selected 69 studies, Z. Li et al. (2020) selected 33 studies, Naranjo Zolotov et al. (2018) selected 60 studies, Pelaez et al. (2017) selected 35 studies, Sarkar et al. (2020) selected 118 studies, Tamilmani et al. (2020) selected 60 studies for analysis.

3.2 Data extraction

After critically examined each article items extracted were following: name of authors, publication year, sample size, variables (independent – dependent), correlation coefficient between constructs, relationship is significant or not, context (e-banking, m-shopping, e-retailing etc.), country name from where sample was collected, target population and theory (on which study is based). The list of all useful datasets is available in Table 1.

3.3 Merging of variables

During the process of data extraction, the study found that authors of selected studies defined different variables or constructs with different names, but those stand similar meanings. So, these synonyms name of constructs reduced in single name (i.e. intention to use, intention, behavioural intention, intention to

adopt and intention to purchase were reduced to behavioural intention, similarly e-trust, online trust, internet trust, trust in online retailer or e-retailer were reduced as trust. After the merging process, all the relationships of variables that were examined three or more times in the total selected studies (Baptista & Oliveira, 2016; Rana et al., 2015) were included in this study and used for further analysis in the next section.

4. RESULTS

4.1 Weight analysis

Jeyaraj et al., (2006) used weight analysis technique to check the predictive power of independent variable. In a given relationship this weight analysis indicates the prediction power of independent variable over dependent variable (Jeyaraj et al., 2006). In this study all the relation that were examined three or more time included for further analysis. To comply with this condition 20 independent and 3 dependent constructs were found with their 24 relationships shows in Table 2. In this paper weight is calculating with the help of significant relationship and all the relationship between two variables. A ratio is calculated by dividing the total number of significant relationships by total number of relationships identified between independent and dependent variable in the selected studies (Rana et al., 2015; Tamilmani et al., 2020). For this significant relationships is labeled as (a) and to the total no of relationship between independent and dependent variable is labeled as (b) and thus $(a)/(b)$ formula is used to calculate weight (Rana et al., 2015; Tamilmani et al., 2021). After dividing $(a)/(b)$ if weight is one (1) it indicates the significant relationship between the two variables in all the included studies and if weight is zero (0) it indicates that there is not significant relationship between two variables in all the included studies (Jeyaraj et al., 2006; Rana et al., 2015). If independent variables examined five or more time is can be considered “well-utilized” and if examined less than five time in the selected studies, can be considered “experimental” predictors of dependent variables (Jeyaraj et al., 2006). Furthermore “well-utilized” qualifies as “best predictor” of dependent variable if weight equal to or more than 0.80 and “experimental” qualifies as “promising” predictors of dependent variable if weight equal to 1 (Jeyaraj et al., 2006). Table 3 shows “well utilized” independent variables and Table 4 shows independent variables qualifies as “best predictor” of dependent variable. In our study 19 variables identifies as the “well utilized” (five or more examinations) predictor of consumer behavioural intention towards e-retailers out of these 19 variables following 15 variables with weight: attitude (1), effort expectancy (0.80), e-service quality (1), facilitating conditions (0.806), habit (1), hedonic motivation (1), performance expectancy (0.902), perceived usefulness (0.941), personal innovativeness (0.909), price value (0.80), satisfaction (1), self-efficacy (0.9), subjective norm (0.916), trust (0.884) and utilitarian motivation (1) identifies as ‘best predictor’ for behavioural intention because these “well utilized” predictor have weight equal to or more than 0.80. The other four “well utilized” variables: perceived behaviour control (0.750), perceived ease of use (0.714), perceived risk (0.583) and social influence (0.648) having weight less than 0.80 identified as least/worst predictive (Jeyaraj et al., 2006) variables of behavioural intention. Information quality and perceived value identified as experimental predictors (less than 5 examination) of behavioural intention. Out of these two experimental predictors, perceived value qualifies as the “promising predictor” of consumer behavioural intention with perfect weight of one (1). No type of relationship was found non-significant in “promising predictor” (experimental predictors with weight 1), so researchers should evaluate such “promising predictor” for further study to qualify it as “best predictors” (Franque et al., 2020; Jeyaraj et al., 2006; Rana et al., 2015). Perceived ease of use and perceived usefulness are only two “well utilized” (five or more examinations) predictors of attitude and also qualify as “best predictors” with weight 0.81 and 0.91. Behavioural intention is only one predictor of use behavior and identified as “well utilized” and “best predictor” with perfect one (1) weight.

4.2 Meta-analysis

Meta-analysis is a technique of quantitative nature that compare effect size across relationship between variables or constructs(Naranjo Zolotov et al., 2018). Meta-analysis is a quantitative technique that compare effect size across relationship between variables or constructs (Naranjo Zolotov et al., 2018). According to Gene Glass (1976) Meta analysis refers to analysis of analysis and defined as “the statistical analysis of a large collection of analysis results from individual studies for the purpose of integrating the finding”(Glass, 1976). Meta analysis provides aggregate of results from literature review of previous comparable and relevant studies on a particular topic to make a quantified synthesis (Bowman, 2012). In this study, correlation coefficient and standardized regression coefficient are used as effect size from the metrics of different studies(Naranjo Zolotov et al., 2018). Standardized regression coefficient and correlation coefficient can be used interchangeably in a quantitative meta-analysis (Bowman, 2012). In this study, Meta Essential software (Suurmond et al., 2017) is used because Meta Essential is freely available on website (www.metaessentails.com) and provides wide range of automatically calculate effect size from reported statistics. We used r family (correlation between two variables) workbook of Meta Essential Software for this study. In this workbook, we input data related to study name, r (coefficient of correlation of particular relation), sample size of individual study and subgroup for every relationship found in the included studies. As suggested by Peterson& Brown (2005) if r is absence in the selected studies, this study used Beta coefficient as a effect size as $r = \beta + .05 \text{ lemda}$. The number of studies, size of sample, meta-analysis results (average β or r, value of p, Z and Q, I², CI, and Fail safe) of the 24 relationships are summarized in Table 5. Standard normal deviation (z-value), p-value, I² and confidence interval (95%) are calculated in this study by following the approach (Liu et al., 2019; Naranjo Zolotov et al., 2018). Effect of the individual relationship is significant if ($p < 0.5$) and non-significant if ($p > 0.5$).Hamari & Keronen (2017)interpreted correlation effect size as “small” when correlation values between 0.10-0.30, “medium” when values of correlation is between 0.30-0.50 and “large” for correlation values between 0.50-1.00 According to Cohen(1992) effect sizes calculated from correlation can be categorized as strong(0.50), moderate(0.30) and weak(0.10) as a rules of thumb. In figure 1 blue bullet shows the effect size and blue line of forest plot represent the confidential interval for the individual relationship at 95%. I² statistics is used to asses Heterogeneity (Higgins and Thompson 2002, Bornstein et al. 2009). If I² is near zero than observed variance is fallacious and there is nothing to explain but if I² is large, then subgroup analysis or meta-regression techniques can be used to check and explain the reason for variance(Borenstein et al., 2009).The value of I² for all the relationship is over 88%, that indicate a high heterogeneity between these independent and dependent variables except information quality to Behavioural intention relationship. This study shows a high level of heterogeneity because, the average I² across all 24 calculated is 92.4%, which is higher than the recommended level of 75%(Higgins et al., 2003; Higgins & Thompson, 2002). Higgins et al. (2003) suggest a tentative benchmarks of value in order of 25% as low, 50% as moderate and 75% as high heterogeneity for given relationship. As suggested by Borenstein et al. (2009) we perform a two subgroups analysis the first subgroup analysis includes first group for Indian studies and second group for outside India studies or we can say other countries. For second subgroup analysis first group for the years 2007 to 2013 and the second group for the years 2014 to 2020. Results of Table 6 shows that I² remain very high for all the relationship for each of the subgroup except SE-BI (only for year wise subgroup analysis). Fixed effect model considers the true effect size for all studies is same while random effect model considers that there is a variation in true effect size from one study to another study(Borenstein et al., 2009). Due to the more degree of precision in true effect size in mete analysis “Random effect” mode is preferred over “fixed effect” model for meta-analysis (Hunter and Schmidt, 2004).“Fixed effect” model considers all the studies “homogenous” in the population and effect

size is also same for all the studies (Tamilmani et al., 2021). “Fixed effect” model considers that there is a variation between studies (Hunter and Schmidt, 2004) and “Random” effect model consider both within study and between study variance (Naranjo Zolotov et al., 2018). For this research, the random effects model was chosen due to three reasons: (1) considering the above advantages, (2) for this study data come from independents studies as a random sample and (3) Blut et al. (2015), Franque et al. (2020), Naranjo Zolotov et al. (2018) and Tamilmani et al. (2020) also suggested that “random effect” model is more realistic according the study they conducted. The meta-analysis result shows in Table 5 indicate that total effect of all the 24 relationships found to statistically significant ($p < 0.01$). In the total 24 relationship, 1 relationship perceived risk to intention is negatively correlated and the remaining all relationship is positively correlated. The significance results of all the relationship are also supported by the high absolute z value with the maximum z value for effort expectancy to Intention (14.19) and minimum z value for perceived value to intention (2.61). There are strong relationships between behavioural intention and attitude ($r = 0.58$), habit ($r = 0.61$), hedonic motivation ($r = 0.52$), information quality ($r = 0.55$), performance expectancy (0.54), e-service quality ($r = 0.55$), perceived usefulness ($r = 0.50$), satisfaction ($r = 0.63$), self-efficacy ($r = 0.51$). Moderate relationship between behavioural intention and effort expectancy ($r = 0.47$), facilitating conditions ($r = 0.48$), perceived behavioural control ($r = 0.42$), perceived ease of use ($r = 0.35$), personal innovativeness ($r = 0.47$), perceived value ($r = 0.51$), price value ($r = 0.46$), social influence ($r = 0.45$), subjective - norm ($r = 0.40$), trust (0.47) and utilitarian motivation (0.44). lower relationship between intention and perceived risk (-0.29). There is also a strong relationship between perceived usefulness and attitude ($r = 0.51$) and between behavioural intention to use behaviour ($r = 0.62$). By using the “best predictors” and “promising predictor” of all the relationship we build the suggested model (see Fig. 2).

4.3 Evaluation of publication bias

Probability of publication of the studies with high effect size and significant result over the studies that report relatively lower effect size and also un significant result refer to the publication bias (Borenstein et al., 2009). Borenstein et al.(2009) and Harrison et al.(2017) discuss different reasons of publication bias: (i) to get the desired results researchers may modify their results and models; (ii) past studies may focus to publish the results that are statistically significant; (iii) reviewers of the journals may recommend the studies that have statistically significant results; (iv) higher probability to included published studies. We tested the publication bias using meta essential. We assessed publication bias using Rosenthal Fail -safe N test. The fail -safe N indicate how many studies with non-significant results or unpublished studies is required to nullify the effect between independent and dependent variables and construct (Pelaez et al., 2019; Rosenthal, 1979). The value of Fail -safe N should exceed $5k + 10$ (where k represent the total of identified studies or correlations for a particular relation)(Li et al., 2020; Rosenthal, 1979). In this study, all the Fail - safe N value for 24 relationships shows in Table 5 is exceed the thumb rule ($5k + 10$), that signalize the total number of studies required with non-significant results. The value of Fail -safe N indicate that publication bias is not an issue for this study.

5. DISCUSSION

In the last many years different theoretical model, theories sample size, constructs have been used in many empirical studies related to e-commerce/ e-retailing by the authors. The analysis of these studies with the help of combining “meta-analysis” and “weight analysis” provide strong base to the results and concerned approach of the predictors of the dependent variable. In this study, analysis is started with “best predictors” independent variables of dependent variable identified with assuming the “best predictor” have the greater probability that it also gives a significant result in meta -analysis(Rana et al., 2015). All

the 15 identified “best predictors” of dependent variables of weight analysis, were also found statistically significant in the meta-analysis. This result is also consistent with the claim of studies conducted on meta-analysis (Baptista & Oliveira, 2016; Rana et al., 2015; Naranjo Zolotov et al., 2018) in the meta-analysis. In term of promising predictor, one out of one, was found statistically significant. In term of worst predictors (identified five or more times with weight > 0.80), five out of five predictors found statistically significant. Most of the best predictors, are part of either TAM (Davis et al., 1989) and UTAUT (Venkatesh et al., 2003), UTAUT2 (Venkatesh et al., 2012) and the study found these theories as most dominant theories. Study also argues that there should be conducted an empirical study of these predictors and their relationship, which can prove worth of the results of meta-analysis and weight analysis.

6. IMPLICATIONS FOR THEORY AND PRACTICE

The results of this study also proposed various implications for theory and practice. The results of weight analysis and meta-analysis in this study regarding independent and dependent variables can give a idea to researchers to drive a model of “best” and “promising predictors” behavioural intention and actual use behaviour in online shopping context. The higher or strong correlation of performance expectancy, attitude and satisfaction with behavioural intention shows that satisfied respondents with positive attitude and perceiving that online shopping is useful to adopt online shopping. The synthesis of literature shows that researchers have used a wide range of theories such as TRA (Fishbein and Ajzen 1975), TPB (Ajzen, 1991), The SCT (Bandura, 1982), TAM (Davis et al., 1989; Davis et al., 1992), SOR (Mehrabian and Russell 1974), UTAUT (Venkatesh et al., 2003), and UTAUT2 (Venkatesh et al., 2012). The result shows in Table 7. presents that UTAUT2 and TAM is most used theory followed by UTAUT and TPB. Most of the studies integrated more than one theory (Aggarwal & Rahul, 2017; Al-Maghrabi & Dennis, 2012; Ashraf et al., 2014; Buabeng-Andoh & Baah, 2020; Chawla & Joshi, 2020; Lim et al., 2016; Rahi & Abd. Ghani, 2018a; Rehman et al., 2019; S. Singh & Srivastava, 2018; Tarhini et al., 2017, 2019) in the online context, so this study also agrees with this practice and consider that it endows new knowledge and magnifies the theoretical model. This study also suggests that instead of using traditional theories (IDT, TRA, SCT, SOR etc.), researchers should use new theory such as UTAUT2 that is most used theory in this research with addition constructs of other theories. This study also found that “worst predictors” such as perceived behaviour control, perceived ease of use, perceived risk and social influence of “weight analysis” is also found statistically significant in the “meta-analysis” result. The result of this study can provide actual and emphatic selection of constructs for empirical studies in online context for future researchers that a particular construct should comprise or not in the research model. For example, best predictors of dependent variable with significant result should be used necessarily for further empirical research while “promising predictors” require further analysis to become “best predictor” of dependent variables.

7. CONCLUSIONS

The goal of our study begins with the evaluation of 75 selected articles related to e-commerce/e-retailing in the last 15 years and conduct a “weight analysis” and “meta-analysis” of constructs utilized. This goal was achieved by identified the total numbers of significant and non-significant relationship between the constructs, sample size, type of respondents, country of research, theories used for studies and other information necessary to conduct meta-analysis. The article identifies ‘best’, ‘worst’ as well as ‘promising’ predictors (Jeyaraj et al., 2006; Rana et al., 2015) of online shopping intention and use behaviour. The construct: attitude, effort expectancy, e-service quality, facilitating conditions, habit, hedonic motivation, performance expectancy, perceived usefulness, personal innovativeness, price value, satisfaction, self-

efficacy, subjective norms, trust and utilitarian motivation identifies as ‘best predictor’ for behavioural intention. Behavioural intention found as a ‘best predictor’ of use behaviour. The ‘best predictors’ and ‘promising predictors’ of dependable variables results of “weight analysis” is also found statistically significant in “meta-analysis” result and therefore this result provides a strong and safe base for future research related to consumers’ online shopping intention and use behaviour. We found most used construct from the Technology Acceptance Model, UTAUT and UTAUT2 model. On the basis of the results of this study attitude, e-service quality, perceived usefulness, personal innovativeness, satisfaction, self-efficacy, subjective norms, trust and utilitarian motivation should be used with UTAUT2 theory as a extension or integration of other theories with UTAUT2 to check the better amplification of intention and use behaviour towards online shopping. On the basis of these results this study Table 8 presents all major factors’ definition from the related literatures.

8. LIMITATIONS AND FUTURE RESEARCH

The use of meta-analysis and weight analysis to identify the relationship between variables may not give a true solution because of the some reason: (i) some qualitative and experimental studies were not included (ii) the article selected were limited to English language only (iii) only paper published in different journals were included so unpublished dissertation and conference paper were out of the scope of this study (iv) all the available statistical data like T-test and F-test were not considered for meta-analysis (v) In sub group analysis of culture value and demographics were not considered in this study that may affect consumer behaviour towards e-retailers. Besides the limitations discussed above future studies may consider cultural dimensions, legal environment and demographics as separate factors of the study. Future research may be conducted to check most frequently used model to see whether any other relationship is exists that is not used in this study. Future research may use other analysis technique to check to relevant variables’ relationships base on the primary studies that were out of the scope of this study. Empirical studies could be performed through data collected from primary sources to validate the result of this study.

Table 1 Summery of selected studies

No.	Study	Years	Sample size	Technology	Country	Respondents	Theoretical model
1	Lin (2007)	2007	297	online shopping	Taiwan	customers	TAM, TPB
2	Chang & Chen (2008)	2008	628	online retailing	Taiwan	users	SOR frameork
3	Wang (2008)	2008	240	e-commerce	Taiwan	users	Delone &Mclean

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4	Ganguly et al. (2009)	2009	290	online shopping	India	students	SDM
5	Ha & Stoel (2009)	2009	298	online shopping	USA	students	TAM
6	Udo et al. (2010)	2010	211	e-business	USA	students	SDM
7	Luarn & Juo (2010)	2010	476	m-payment	Taiwan	users	TAM
8	Carter et al. (2011)	2011	304	online tax filling	USA	Taxpayers	UTAUT
9	Chen & Yi (2011)	2011	626	electronic coupon	Taiwan	public	TPB
10	Gao & Deng (2012)	2012	246	e-book	China	users	UTAUT
11	Venkatesh et al. (2012)	2012	1512	m-internet	Hongkong	m-users	UTAUT2
12	Kim et al. (2012)	2012	293	internet shopping	Korea	public	SDM
13	Al-Maghrabi & Dennis (2012)	2012	234	online shopping	Saudi Arabia	online shoppers	TAM, TRA
14	E. C. Chang & Tseng (2013)	2013	332	online auction	Taiwan	users	SDM
15	Escobar-Rodríguez & Carvajal-Trujillo (2013)	2013	1360	online airline Ticket	Spain	user of online tickets	UTAUT2
16	Ashraf et al. (2014)	2014	218	online shopping	Canada	students	TAM, TPB
17	Rafique et al. (2014)	2014	147	online shopping	Pakistan	public	TAM
18	Cheah et al. (2015)	2015	426	online shopping	Australia	students	TPB
19	An et al. (2016)	2016	387	online shopping	China	public	UTAUT2
20	Aofan et al. (2016)	2016	186	m-learning	China	students	UTAUT
21	Celik (2016)	2016	483	online shopping	Turkey	online shoppers	UTAUT
22	Lim et al. (2016)	2016	662	online shopping	Malasiya	students	TAM, TPB
23	Prateek Kalia et al. (2016)	2016	308	e-retailing	India	online shoppers	SDM
24	Tak & Panwar (2017)	2017	350	m-shopping apps	India	students	UTAUT2

25	El-Masri & Tarhini (2017)	2017	389	e-learning	USA	e-learning users	UTAUT2
26	Tarhini et al. (2017)	2017	366	e-learning	England	students	UTAUT2, SCT
27	Farooq et al. (2017)	2017	481	e-learning	Malasiya	students	UTAUT2
28	Sharif & Ali Raza (2017)	2017	270	internet banking	Pakistan	students	UTAUT2
29	Prashar et al. (2017)	2017	318	online shopping	India	online shoppers	SOR Framework
30	Li et al. (2017)	2017	210	e-auction	China	users	Ext. TAM
31	Aggarwal & Rahul (2017)	2017	500	e-retailing	India	online shoppers	TAM, SOR
32	Tandon & Kiran (2018)	2018	500	online shopping	India	online shoppers	UTAUT2
33	Chua et al. (2018)	2018	384	social network apps	India	users	UTAUT
34	Farah et al. (2018)	2018	385	mobile banking	Pakistan	customers	UTAUT2
35	Gupta et al. (2018)	2018	343	Travel apps	India	users	UTAUT2
36	Paulo et al. (2018)	2018	335	M-tourist	Portugal	users	UTAUT2
37	Rahi & Abd. Ghani (2018)	2018	398	internet banking	Pakistan	internet banking users	UTAUT, DOI
38	S. Singh & Srivastava (2018a)	2018	855	m-banking	India	customers	SDM
39	aThongsri et al. (2018)	2018	359	m-learning	Thailand	students	UTAUT
40	Khoi et al. (2018)	2018	382	m-commerce	Vietnam	consumers	TPB
41	Asastani et al. (2018)	2018	156	m-commerce	Indonesia	online shoppers	UTAUT
42	Sim et al. (2018)	2018	278	m-commerce	Malasiya	m-users	UTAUT
43	Rahman et al. (2018)	2018	859	online shopping	Pakistan	consumers	TAM
44	S. Singh & Srivastava (2018)	2018	344	online shopping	India	online shoppers	TAM, SCT

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45	Alalwan et al. (2018)	2018	348	internet banking	Jordan	customers	UTAUT2
46	Taherdoost (2018)	2018	427	e-service	Malasiya	users	E-TAM
47	Changchit et al. (2019)	2019	790	online shopping	Thailand	consumers	TAM
48	Elanur Kaplan (2018)	2018	327	online shopping	Turkey	students	TPB
49	Chi (2018)	2018	796	m-commerce	China	consumers	TAM
50	Chopdar & Sivakumar (2019)	2019	302	m-shopping apps	India	E-commerce users	UTAUT2
51	Foroughi et al. (2019)	2019	369	mobile banking	Malasiya	m-banking users	TAM
52	Owusu Kwateng et al. (2019)	2019	300	mobile banking	Ghana	users of m-banking	UTAUT2
53	Oertzen & Odekerken-Schröder (2019)	2019	750	online banking	Germany	users of m-banking	TAM
54	Samsudeen & Mohamed, (2019)	2019	502	e-learning	Sri Lankan	students	UTAUT2
55	Tarhini et al. (2019)	2019	530	mobile commere	Oman	users	UTAUT2, SCT
56	Chawla & Joshi (2019)	2019	744	m-wallet	India	users	TAM, UTAUT
57	K. P. Gupta et al. (2019)	2019	660	payment bank	India	public	UTAUT
58	Rahi & Abd.Ghani (2019)	2019	398	internet banking	Pakistan	customers	UTAUT
59	Rahi et al. (2019)	2019	395	internet banking	Pakistan	customers	UTAUT
60	Rehman et al. (2019)	2019	187	online shopping	Pakistan	students and lecturers	TAM, TPB
61	Almaiah et al. (2019)	2019	697	mobile learning	Jordan	students	UTAUT
62	Raman (2019)	2019	909	online shopping	India	female online shoppers	TRA
63	Singh et al. (2019)	2019	412	online shopping	India	online shoppers	SDM

64	Ahmad et al. (2020)	2019	493	e-banking	Pakistan	users	TAM
65	Chawla & Joshi (2020)	2020	744	mobile wallet	India	users	TAM, UTAUT
66	Dhiman et al. (2020)	2020	324	smart phone fitness apps	India	members of fitness club	UTAUT2
67	Gunasinghe et al. (2020)	2020	441	e-learning	Sri Lankan	Academician	UTAUT3
68	Gunden et al. (2020)	2020	650	online food delivery system	USA	users	UTAUT2
69	K. Gupta & Arora (2020)	2020	267	mobile payment system	India	users	UTAUT2
70	Beqqali Hassani et al. (2020)	2020	94	Information system	France	users	UTAUT2
71	Karjaluoeto et al. (2020)	2020	1165	payment system	Finland	users	UTAUT2
72	Zwain (2019)	2019	553	e-learning	Iraq	students	UTAUT2
73	Buabeng-Andoh & Baah (2020)	2020	361	e-learning	Ghana	teachers	TAM, UTAUT
74	Dewi et al. (2020)	2020	157	online retailing	Indonesia	online consumers	UTAUT
75	Patil et al. (2020)	2020	491	m-payment	India	public	UTAUT

Table 2. list of independent variables with 3 or more examination

SN	Independent Variables	DV	Sig (a)	Non-Sig	Total (b)	Weight (a/b)
1.	Attitude	BI	21	0	21	1
2.	Effort Expectancy		32	8	40	0.80
3.	E-Service Quality		7	0	7	1
4.	Facilitating Conditions		25	6	31	0.806
5.	Habit		22	0	22	1
6.	Hedonic Motivation		28	5	33	0.848
7.	Information Quality		1	2	3	0.333
8.	Perceived Behaviour Control		6	2	8	0.750
9.	Performance Expectancy		37	4	41	0.902
10.	Perceived Ease of Use		5	2	7	0.714
11.	Perceived Usefulness		16	1	17	0.941
12.	Personal Innovativeness		10	1	11	0.909

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13.	Perceived Risk		7	5	12	0.583
14.	Perceived Value		3	0	3	1
15.	Price value		12	3	15	0.80
16.	Satisfaction		9	0	9	1
17.	Self-efficacy		9	1	10	0.9
18.	Social Influence		24	13	37	0.648
19.	Subjective Norm		11	1	12	0.916
20.	Trust		23	3	26	0.884
21.	Utilitarian Motivation		6	0	6	1
22.	Perceived Ease of Use	ATT	9	2	11	0.818
23.	Perceived Usefulness		11	1	12	0.916
24.	Behavioural Intention	UB	34	0	34	1

Table No. 3 Well Utilized Predictors (5 or more examination)

SN	Independent variable	DV	Sig (a)	Non-Sig	Total (b)	Weight (a/b)
1.	Attitude	BI	21	0	21	1
2.	Effort Expectancy		32	8	40	0.80
3.	E-Service Quality		7	0	7	1
4.	Facilitating Conditions		25	6	31	0.806
5.	Habit		22	0	22	1
6.	Hedonic Motivation		28	5	33	0.848
7.	Perceived Behavioural Control		6	2	8	0.750
8.	Performance Expectancy		37	4	41	0.902
9.	Perceived Ease of Use		5	2	7	0.714
10.	Perceived Usefulness		16	1	17	0.941
11.	Personal Innovativeness		10	1	11	0.909
12.	Perceived Risk		7	5	12	0.583
13.	Satisfaction		9	0	9	1
14.	Self-efficacy		9	1	10	0.9
15.	Social Influence		24	13	37	0.648
16.	Subjective Norm		11	1	12	0.916
17.	Trust		23	3	26	0.884
18.	Utilitarian Motivation		6	0	6	1
19.	Perceived Ease of Use	ATT	9	2	11	0.818
20.	Perceived Usefulness		11	1	12	0.916
21.	Behavioural Intention	UB	34	0	34	1

Table 4. "Best predictor" (well utilized have weight equal to or more than 0.80)

SN	Independent variable	DV	Sig (a)	Non-Sig	Total (b)	Weight (a/b)
1.	Attitude	BI	21	0	21	1
2.	Effort Expectancy		32	8	40	0.80
3.	E-Service Quality		7	0	7	1
4.	Facilitating Conditions		25	6	31	0.806
5.	Habit		22	0	22	1
6.	Hedonic Motivation		28	5	33	0.848
7.	Performance Expectancy		37	4	41	0.902

8.	Perceived Usefulness		16	1	17	0.941
9.	Personal Innovativeness		10	1	11	0.909
10.	Price Value		12	3	15	0.80
11.	Satisfaction		9	0	9	1
12.	Self-efficacy		9	1	10	0.9
13.	Subjective Norm		11	1	12	0.916
14.	Trust		23	3	26	0.884
15.	Utilitarian Motivation		6	0	6	1
16.	Perceived Ease of Use	ATT	9	2	11	0.818
17.	Perceived Usefulness		11	1	12	0.916
18.	Behavioural Intention	UB	34	0	34	1

Table 5.Summary of the meta-analysis of each relationship

S. N	IV-DV	F	Sample size	Average (β) or r	p value	z value	CI low	CI high	I2	Q	Fail safe
1	PE-BI	41	18641	0.54	0	14.01	0.48	0.60	97.35	1507.59	2685
2	EE-BI	40	17991	0.47	0	14.19	0.41	0.52	95.98	971.33	63009
3	SI-BI	37	15878	0.45	0	13.35	0.39	0.50	95.03	724.04	44082
4	HM-BI	33	15341	0.52	0	12.30	0.45	0.59	96.73	977.53	54882
5	FC-BI	31	14824	0.48	0	12.94	0.41	0.54	96.01	790.81	44068
6	TR-BI	26	11443	0.47	0	11.39	0.40	0.54	95.66	576.18	26029
7	HA-BI	22	11317	0.61	0	11.77	0.53	0.69	97.89	992.95	45069
8	ATT-BI	21	10178	0.58	0	6.89	0.43	0.70	98.92	1854.93	33897
9	PU-BI	17	8133	0.50	0	8.87	0.40	0.59	96.46	452.10	14399
10	PV-BI	15	7858	0.46	0	6.54	0.32	0.58	98.49	929.16	10697
11	PR-BI	12	5670	-0.29	0	-4.63	-0.41	-0.15	94.68	206.94	2270
12	PI-BI	11	4124	0.47	0	6.88	0.34	0.59	96.36	274.96	4363
13	SN-BI	11	5249	0.40	0	4.14	0.19	0.57	97.67	428.41	3114
14	SE-BI	10	4356	0.51	0	7.02	0.36	0.63	96.27	241.26	4660
15	SAT-BI	9	3846	0.63	0	7.94	0.48	0.74	97.05	270.91	384
16	PBC-BI	8	2711	0.42	0	3.32	0.13	0.64	97.87	328	1490
17	ESQ-BI	7	2696	0.55	0	4.37	0.27	0.75	98.26	348.78	2650
18	PEOU-BI	7	2468	0.35	0	5.77	0.21	48	91.44	70.12	854
19	UM-BI	6	2596	0.44	0	8.29	0.31	0.55	88.72	44.33	1244
20	PRV-BI	3	1037	0.51	0	2.61	-0.35	0.90	98.09	104.86	363
21	IQ-BI	3	1311	0.55	0	21.97	0.46	0.63	4.16	2.09	530
22	PU-ATT	12	5360	0.51	0	6.16	0.35	0.64	97.76	490.92	7164
23	PEOU-ATT	11	4610	0.41	0	6.36	0.27	0.53	94.36	177.31	3294
24	BI-UB	34	15944	0.62	0	10.77	0.53	0.70	98.40	2060	96493

ATT-Attitude, EE-Effort Expectancy, ESQ-E-Service Quality, FC-Facilitating Conditions, PV- Price, PRV- Perceived Value, IQ- Information Quality, HA-Habit, HM- Hedonic Motivation, PBC-Perceived Behavioural Control, PE- Performance Expectancy, PEOU-Perceived Ease of Use, PU- Perceived Usefulness, PI-Personal Innovativeness, PR- Perceived Risk, SAT-Satisfaction, SE-Self- efficacy, SI-Social Influence, SN-Subjective Norm, Trust, UM-Utilitarian Motivation, BI- Behavioural Intention

Table. 6 Summary of India- others countries and years (200-13)- (2014-20) comparison results

S. N	IV-DV	Place	Frequency	r	I2	Q
1	ATT-BI	India	6	0.46	99.04	520.98
		others	15	0.62	98.68	1059.57
		2007-13	3	0.36	90.27	20.56
		2014-20	18	0.61	99.00	1707.85
2	EE-BI	India	9	0.42	96.68	241.16
		others	31	0.48	95.82	718.32
		2007-13	4	0.39	99.15	353.39
		2014-20	36	0.47	94.33	616.14
3	ESQ-BI	India	4	0.35	79.33	14.52
		others	3	0.75	97.58	82.54
		2007-13	1	-----	-----	-----
		2014-20	6	-----	-----	-----
4	FC-BI	India	9	0.45	95.60	204.61
		others	22	0.49	96.40	583.24
		2007-13	2	0.60	99.03	103.10
		2014-20	29	0.47	95.40	630.18
5	HA-BI	India	6	0.52	93.79	64.45
		others	16	0.64	98.17	872.20
		2007-13	2	0.66	99.75	403.79
		2014-20	20	0.61	96.76	586.31
6	HM-BI	India	8	0.44	94.00	116.72
		others	25	0.54	97.08	821.43
		2007-13	5	0.56	98.06	206.55
		2014-20	29	0.51	96.48	766.11
7	IQ-BI	Others, 2014-20	3	-----	-----	-----
8	PBC-BI	India	2	0.23	76.97	4.34
		others	6	0.48	98.20	278.44
		2007-13				
		2014-20	8	-----	-----	-----
9	PE-BI	India	9	0.43	96.89	256.99
		others	32	0.57	97.26	1132.19
		2007-13	4	0.50	98.92	276.61
		2014-20	37	0.55	97.07	1228.75
10	PEOU-BI	India	1	-----	-----	-----
		others	6	-----	-----	-----
		2007-13	3	0.23	66.36	5.95
		2014-20	4	0.45	78.66	14.06
11	PU-BI	India	5	0.55	96.35	109.47
		others	12	0.49	96.68	361.84
		2007-13	4	0.44	94.10	50.80
		2014-20	13	0.52	96.79	404.59
12	PI-BI	India	3	0.41	95.26	42.19
		others	8	0.50	96.73	214.23
		2007-13	---	-----	-----	-----
		2014-20	11	-----	-----	-----
13	PR-BI	India	6	-0.28	93.70	79.36

		others	6	-0.30	95.95	123.34
		2007-13	3	-0.11	80.39	10.20
		2014-20	9	-0.34	94.53	146.14
14	PRV-BI	India	1	-----	-----	-----
		others	2	-----	-----	-----
		2007-13	1	-----	-----	-----
		2014-20	2	-----	-----	-----
15	PV-BI	India	5	0.43	94.58	73.84
		others	10	0.48	98.90	820.94
		2007-13	2	0.62	99.81	530.05
		2014-20	13	0.43	95.78	284.11
16	SAT-BI	India	4	0.49	88.34	25.73
		others	5	0.72	94.47	72.30
		2007-13	2	0.57	0.00	0.02
		2014-20	7	0.65	97.70	261.27
17	SE-BI	India	3	0.49	96.70	60.52
		others	7	0.52	96.32	162.88
		2007-13	2	0.33	-0.60	3.98
		2014-20	8	0.55	0.38	213.88
18	SI-BI	India	9	0.41	96.24	213
		others	28	0.46	94.67	506.96
		2007-13	3	0.42	95.93	49.16
		2014-20	34	0.46	94.63	651.23
19	SN-BI	India	3	0.22	88.39	17.22
		others	8	0.46	97.65	298.34
		2007-13	3	0.41	92.31	26.02
		2014-20	8	0.39	98.24	396.65
20	TR-BI	India	8	0.47	97.67	343.41
		others	18	0.49	93.75	271.98
		2007-13	5	0.42	97.74	176.94
		2014-20	21	0.49	95.34	450.43
21	UM-BI	India	2	0.39	95.74	23.45
		others	4	0.47	70.20	10.07
		2007-13	2	0.46	0	0
		2014-20	4	0.43	93.21	44.21
22	PEOU-ATT	India	1	-----	-----	-----
		others	10	-----	-----	-----
		2007-13	2	0.22	4.04	1.04
		2014-20	9	0.45	94.11	143.02
23	PU-ATT	India	1	-----	-----	-----
		others	11	-----	-----	-----
		2007-13	2	0.32	95.35	21.49
		2014-20	10	0.54	97.89	427.03
24	BLUB	India	9	0.53	98.12	425.69
		others	25	0.65	98.51	1614.27
		2007-13	4	0.67	99.20	374.68
		2014-20	30	0.62	98.28	1684.34

Table 7

S.N	Theories /Models	No.	Theories construct	Studies
1	Diffusion of Innovation Theory (DOI) Rogers (1983, 1995)	1	Dependent- Adoption of Technology Independent- Complexity of Technology, Compatibility of Technology, Relative Advantage	Rahi & Abd. Ghani (2018)
2	Theory of Reasoned Action (TRA) Fishbein and Ajzen (1975)	2	Dependent- Behavioral Intention, Behavior Independent- Attitude, Subjective norm,	Al-Maghrabi & Dennis (2012); Raman (2019)
3	Theory of Planned Behavior (TPB) Ajzen (1991)	8	Dependent- Behavioral intention, Behavior Independent- Attitude, Subjective Norm, Perceived behavioral control	Lin (2007); Chen & Yi (2011); Ashraf et al. (2014); Cheah et al. (2015); Lim et al. (2016); Khoi et al. (2018); Elanur Kaplan (2018); Rehman et al. (2019)
4	The Social Cognitive Theory (SCT) Bandura (1986)	3	Dependent- Learning, Change in behavior Independent - Personal factors, Behavior, Environment	Tarhini et al. (2017); S. Singh & Srivastava (2018); Tarhini et al. (2019)
5	The Technology Acceptance Model (TAM) Davis(1986,1989)	22	Dependent - Intention to use, System usage Independent- Perceived Usefulness, Perceived Ease of Use	Lin (2007); Ha & Stoel (2009);Luarn & Juo (2010); Al-Maghrabi & Dennis (2012); Ashraf et al. (2014);Rafique et al. (2014); Lim et al. (2016); Aggarwal & Rahul (2017); Rahman et al. (2018); S. Singh & Srivastava (2018); Changchit et al. (2019); Chi (2018); Foroughi et al. (2019); Oertzen & Odekerken-Schröder (2019); Chawla & Joshi (2019); Rehman et al. (2019); Ahmad et al. (2020); Chawla & Joshi (2020); Buabeng-Andoh & Baah (2020)
6	SOR Mehrabian and Russell (1974)	3	Independent- Environment Stimuli Moderator- Emotional states(Pleasure, Arousal, Dominance) Dependent- Approach or avoidance	Chang & Chen (2008); Prashar et al. (2017); Aggarwal & Rahul (2017)
7	Unified Theory of Acceptance an Use of Technology Model (UTAUT)	18	Dependent - Behavioral Intention, Usage behavior Independent- Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions	Carter et al. (2011); Gao & Deng (2012);Aofan et al. (2016); Celik (2016); Chua et al. (2018); Rahi & Abd. Ghani (2018); aThongsri et al. (2018); Asastani et al. (2018); Sim et al. (2018) Chawla & Joshi (2019); K. P. Gupta et al. (2019);Rahi & Abd.Ghani (2019);Rahi et al. (2019); Almaiah et al. (2019); Chawla & Joshi

	Venkatesh et al. (2003)			(2020); Buabeng-Andoh & Baah (2020); Dewi et al. (2020); Patil et al. (2020)
8	UTAUT2 Venkatesh et al. (2012)	22	UTAUT + Hedonic Motivation , Price value and Habit	Venkatesh et al. (2012);Escobar-Rodríguez & Carvajal-Trujillo (2013); An et al. (2016); Tak & Panwar (2017); El-Masri & Tarhini (2017); Tarhini et al. (2017); Farooq et al. (2017); Sharif & Ali Raza (2017);Tandon & Kiran (2018); Farah et al. (2018); Gupta et al. (2018); Paulo et al. (2018); Alalwan et al. (2018); Chopdar & Sivakumar (2019); Owusu Kwateng et al. (2019); Samsudeen & Mohamed, (2019); Tarhini et al. (2019); Dhiman et al. (2020); Gunden et al. (2020); K. Gupta & Arora (2020); Beqqali Hassani et al. (2020); Karjaluoto et al. (2020); Zwain (2019)
9	UTAUT3 (Farooq et al. 2017)	1	UTAUT 2 + Personnel Innovativeness	Gunasinghe et al. (2020)

Table 8. Definitions of major factors

Major factors	Definitions
Personal Innovativeness	"The willingness of an individual to try out any new information technology"(Agarwal & Prasad, 1998).
Performance Expectancy	"The degree to which an individual believes that using the system will help him or her to attain gains in job performance"(Venkatesh et al., 2003).
Effort Expectancy	"The degree of ease associated with the use of the system" (Venkatesh et al., 2003).
Social Influence	"The degree to which an individual perceives that important, others believe he or she should use the new system"(Venkatesh et al., 2003).
Facilitating Conditions	"The degree to which an individual believes that an organizational and technical infrastructure exists to support use of the system"(Venkatesh et al., 2003).
Habit	"The extent to which people tend to perform behaviors automatically because of learning" (Limayem et al., 2007; Venkatesh et al., 2012).
Hedonic Motivation	"The fun or pleasure derived from using a technology" (Venkatesh et al., 2012)
Price Value	"Consumers' cognitive tradeoff between the perceived benefits of the applications and the monetary cost for using them"(Dodds et al., 1991; Venkatesh et al., 2012)
Self-efficacy	"Conviction that one can successfully execute the behaviour required to produce the outcomes" (Bandura, 1977).
Satisfaction	"Customers' evaluations of a product or service with regard to their needs and expectations" (Oliver, 1980).
Trust	In the context of e-Commerce, "Trust is a single dimension construct dealing with a consumer's assessment that the vendor is trustworthy"(Gefen, 2000.; Gefen & Straub, 2004).
Perceived ease of use	"The degree to which the user expects the target system to be free of effort" (Davis et al., 1989).
Perceived usefulness	"The user's subjective probability that using a specific application system will increase his or her job performance within an organizational context" (Davis et al., 1989)
Attitude	"An individual's positive or negative feelings about performing the target behaviour"(Davis et al., 1989; Taylor & Todd, 1995).
Subjective Norm	"The person's perception that most people who are important to him think he should or should not perform the behavior in question" (Davis et al., 1989; Fishbein and Ajzen 1975).

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Behavioural Intention	“The strength of one's intention to perform a specified behavior” (Davis et al., 1989; Fishbein and Ajzen 1975).
Use Behaviour	“An individual's actual direct usage of the given system in the context of his or her job”. (Davis et al., 1989; Liu et al., 2019).
Perceived Risk	“The users' subjective evaluation of incurring losses while using a particular system” (Sarkar et al., 2020).
E-Service Quality	“The extent to which a website facilitates efficient and effective shopping, purchasing, and delivery” (Parasuraman et al., 2005).
Perceived Behaviour Control	“The perceived ease or difficulty of performing the behavior” (Ajzen, 1991).
Information quality	“The level of user satisfaction with the information content provided by an Internet shopping website” (Kim et al., 2012).
Utilitarian motivation	“An overall assessment (i.e., judgment) of functional benefits and sacrifices” (Overby & Lee, 2006).
Perceived Value	“consumer's overall assessment of the utility of a product based on perceptions of what is received and what is given” (V. Singh et al., 2019; Zeithaml, 1988).

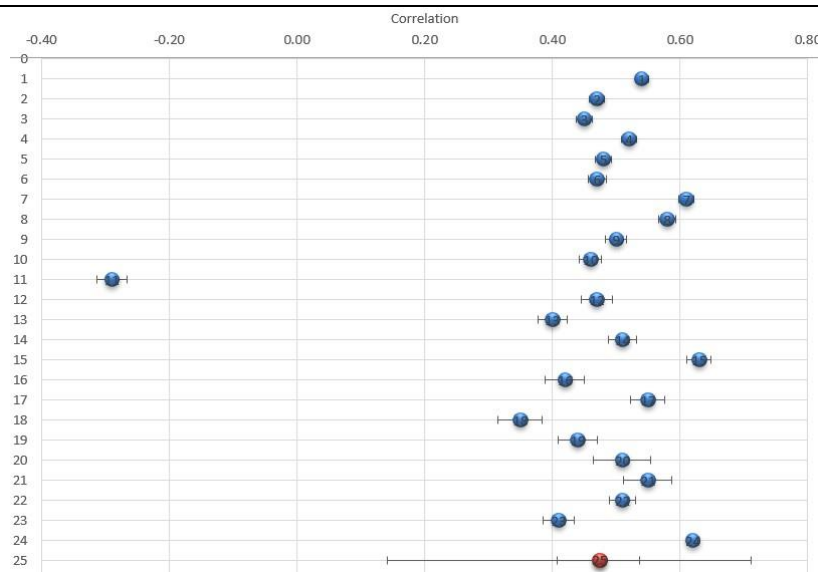


Figure 1: Forest Plat for Table 5

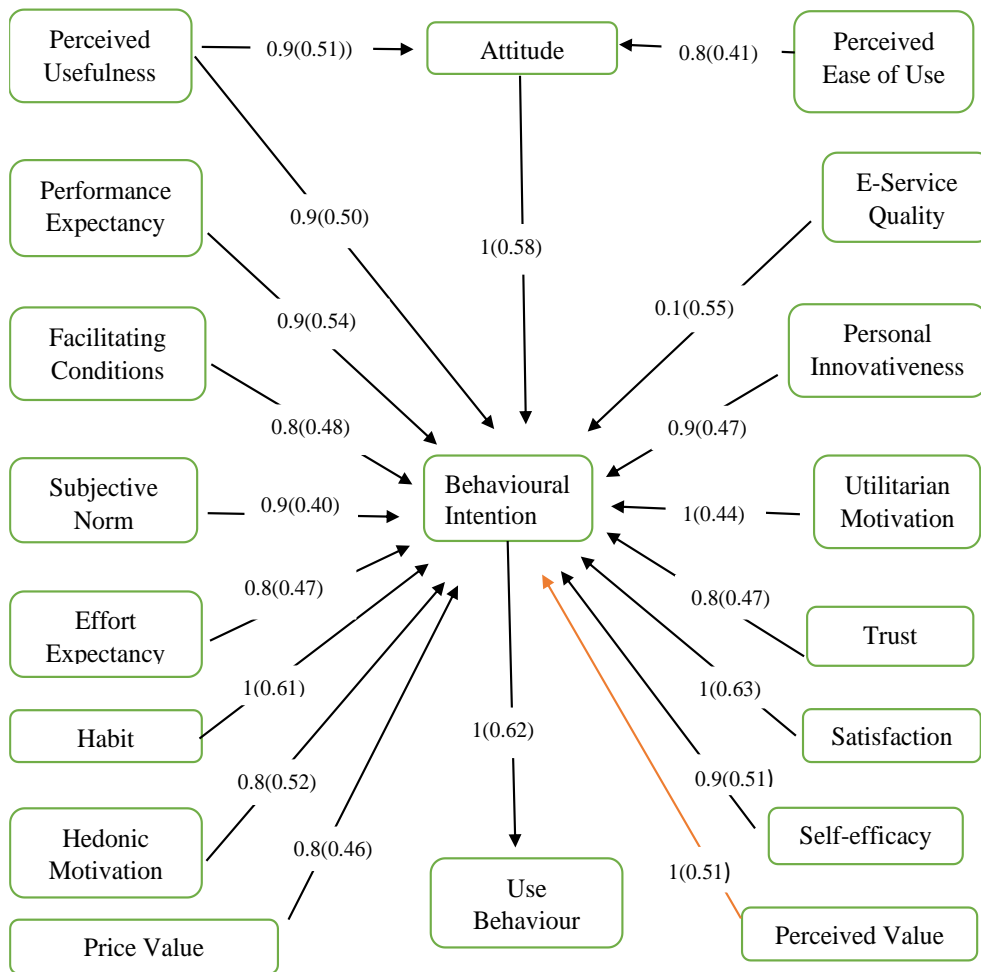


Figure 2. Model resulting from weight analysis and meta-analysis. Numerical value represents the weight value and average Beta. Black line represents the “best predictors’ and orange line represent “promising predictor”.

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