

# A COMPENDIOUS REVIEW ON FACTORS AFFECTING CONSUMER'S BEHAVIOR TOWARDS ELECTRONIC PAYMENT SYSTEM

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**Abstract:** In this article an attempt has been made to identify prevailing motives, factors affecting customer's attitude, behavior intention and actual use behaviour towards Electronic Payment System (EP system). Thus, reviews are synthesized to develop the conceptual framework of the main predictors of consumer's behavior towards EP system. Empirical articles published in academic journals from 2003 to 2018 on EP system were thoroughly reviewed. Results showed that the performance expectancy, effort expectancy, social influence, facilitating conditions, perceived usefulness, perceived ease of use and trust are major drivers whereas perceived security and risk are major barrier towards consumer behavior towards EP system. This is one of the few studies which attempts to perform gap analysis of empirical articles on factors affecting the adoption of EP system and gives a theoretical framework for future studies based on the research gaps.

**Keywords:** Electronic Payment System; Behavior Intention; Motives; Predictors; Barriers.

## 1. INTRODUCTION

The Electronic Payment System has gained immense popularity over the last decades due to the enhanced spread and up-gradations of internet-based banking and e-shopping. Technological developments around the world support the adoption of digitalization in banking sector. As these developments improve and provide more secure electronic payment transactions the percentage of cheque and cash transactions may be replaced by electronic mode of payment. An electronic payment system is a way of making transactions or paying for goods and services through an electronic medium, without the use of cheque or cash. It's also called an online payment system and digital payment system.

With the advent of computers and electronic communications a large number of electronic payment systems have emerged. EP system covers a variety of methods such as payment via debit card, credit card, online banking, mobile banking, mobile payment systems, electronic wallets, electronic cash, electronic cheque, smart cards or storage value cards etc.

In this paper, extensive literature on internet banking or net banking, mobile banking and mobile payment systems have been reviewed. An attempt has been made to identify prevailing motives and factors affecting consumer's attitude, behaviour intention and actual use behaviour positively or negatively towards EP system through the review of empirical and conceptual literature available related to the study. Fifty variables have been explored on the basis of review. The paper begins with a precise introduction about the concept followed by the methodology and approach to the literature including factors affecting the behaviour intention, attitude

and use behaviour towards EP system. The section after that comprises findings and discussion. Finally, conclusions are provided in form of scope for future researches.

## 2. METHODOLOGY AND APPROACH TO THE LITERATURE

This study presents a review of empirical articles on EP system published in academic journals from 2003 to 2018.

### 2.1 Selection criteria

This paper focuses only on the studies that explain the various factors affecting consumer behaviour intention and actual purchase behaviour towards EP system. For the purpose of review the terminologies such as internet banking, mobile banking, net banking, electronic payment systems and mobile payment systems are included in the scope of this research article.

## 3. LITERATURE REVIEW

### 3.1 Performance Expectancy

Performance expectancy is defined as the degree to which an individual believes that using the system will help him or her to attain gains in job performance and to the user's beliefs about the benefits brought by using a technology (Venkatesh, Morris, Davis & Davis, 2003). The five constructs from the different models that pertain to performance expectancy are:

- 1) Perceived usefulness (Technology Acceptance Model/Technology Acceptance Model 2 or TAM/TAM2 and Combined Technology Acceptance Model-Theory of Planned Behaviour or C-TPB-TAM)
- 2) Extrinsic motivation (Motivational Model)
- 3) Job-fit (Model of PC Utilization or MM)
- 4) Relative advantage (Innovation Diffusion Theory or IDT)
- 5) Outcome expectations (Social Cognitive Theory or SCT).

Performance expectancy was found to be the most studied variable in the previous studies; sixteen papers examined performance expectancy (Table 1). Of the fifteen studies, all fifteen found that performance expectancy positively influenced consumer intention and actual use of EP system (Sanchez-Torres, Canada, Sandoval & Alzate, 2018; Rahi, Ghani, Alnaser & Ngah, 2018; Alalwan, Dwivedi, & Rana, 2017; Slade, Dwivedi, Piercy, & William, 2015; Baptista & Oliveira, 2015; Tarhini, Masri, Ali, & Serrano, 2016; Abrahao, Moriguchi, & Andrade, 2016; and Slade, Dwivedi, Piercy, & Williams, 2015; Venkatesh, Thong, & Xu, 2012). Gaitan, Peral and Jeronimo (2015) further extended the study of relationships and found that both trust and effort expectancy had a significant influence on performance expectancy to use EP SYSTEM, which in turn affected consumer's behavior intention to use EP system. Thus, it can be concluded that performance expectancy was one of the most important indicator of behavior intention towards EP system and significant variable in the past studies.

#### 3.1.1 Perceived Usefulness

According to diffusion theory, users are only willing to accept innovations if those innovations provide a unique advantage compared to existing solutions (Rogers 1995). Perceived usefulness is one of the most studied variables in the previous researches. Of the eleven studies, ten studies reported positive significant customer's intention and actual adoption of EP system (Schierz et al., 2010; Ghani et al., 2017; Youssef et al., 2017; Rahi et al., 2017; Nguyen & Huynh 2018; Barkhordari et al. 2016; Yan & Yang 2015; Ting et al., 2015; and Lewis et al., 2015). Perceived usefulness was positively related and had significant influence on customer satisfaction and the indirect relationship between perceived usefulness and behavior intention was significant mediated by customer satisfaction (Ghani et al., 2017). According to Dastan & Gurler (2016) insignificant relationship between perceived usefulness and attitude were observed. Yan & Yang (2015) found that perceived

usefulness affect trust and trust had a significant positive effect on usage intention. Cabanillas, Fernandez, and Leiva (2014a) reported no significant differences between the two age groups for impact of perceived usefulness on the intention to use the proposed payment system. Cabanillas, Fernandez, and Leiva (2014b) found that intention to use m-payment services in Spain is influenced by the usefulness, only among men. And impact of the ease of use on usefulness of the payment system was higher among men than among women. Hence, it can be concluded that users considers the uniqueness of the benefits provided by the system. The majority of findings in the past supported the role of perceived usefulness in the adoption of EP system.

### 3.1.2 Relative Advantage

According to Rogers (1993) it can be defined as “the degree to which an innovation is perceived as better than the idea it supersedes”. The greater the perceived relative advantage of an innovation, the more rapid its rate of adoption will be. Of three studies, two studies reported that relative advantage had strong positive effect on behavioral intention to adopt EP system (Odumeru 2013; and Lu, Yang, Chau & Cao 2011). One study found insignificant relationship of relative advantage with adoption decision of EP system (He, Duan, Fu, & Le 2006).

### 3.2 Effort Expectancy

Effort expectancy is defined as the degree of ease associated with the use of the system. Three constructs from the existing models capture the concept of effort expectancy are:

- 1) Perceived ease of use (TAM/TAM2)
- 2) Complexity (MPCU)
- 3) Ease of use (IDT)

Sanchez-Torres et al. (2018) found that effort expectancy had no significant impact on behavior intention to use e-banking in Colombia. According to Sanchez-Torres et al. (2018) this unexpected finding may indicate that users have already developed expertise in managing e-banking operations, rendering this variable insignificant; however, the negative result could also indicate precisely the opposite, denoting a lack of user experience and the novelty of internet access in this country that leads to doubts and negative expectations about the use of e-banking. The findings so far have been contrary as some of the findings concluded that that effort expectancy had insignificant relationship with behavior intention to adopt EP system (Slade, et al., 2015;Bapista & Oliveira, 2015; and Tarhini et al., 2016 etc.). Whereas, some others found that it has positive significant relationship with behavior intention to use EP system (Rahi et al., .2018; Baptista &Oliveira., 2017; Alalwan et al., 2017; Abrahao et al.,2016; Venkatesh et al., 2012 and Gaitan et al., 2015). Cabanillas et al.(2014a) in their research article analyzed the effect of gender on consumer’s acceptance of mobile payment systems (MPS) in Spain and findings reported that the ease of use on usefulness of the payment system was higher among men than among women. Hence, it can be said that effort involved in a system played a vital role in some studies. Whereas, some studies reported no significant affect of effort expectancy on behavior intention which means people do not consider and give importance to the efforts and ease associated with the system. Thus, these results pinpoint the need for the relationship between two variables and exploring the reasons for these controversial outcomes.

#### 3.2.1 Perceived Ease of Use

Given the technical limitations of electronic devices, ease of use becomes an imminent acceptance driver of mobile applications (Venkatesh 2000). Perceived usefulness is one of the most reviewed variables in the past. Of the fifteen studies, twelve studies found positive significant influence of perceived ease of use on behavior intention and actual use of EP SYSTEM (Schierz et al., 2010; Hujran et al., 2015; Ghani et al., 2017; Youssef et al., 2017; Rahi et al., 2017; Nguyen & Huynh 2018; Tella & Abdulmumin 2015; Teoh et al., 2013; Yan & Yang 2015; and Ting et al., 2016). Perceived ease of use had positive significant influence on customer satisfaction and Perceived usefulness. Indirect relationship between, perceived ease of use and customer satisfaction was also found to be significant (Ghani et al., 2017). Three studies reported insignificant relationship of perceived ease of use with attitude, behavior intention and actual use of EP system (Lewis et al.

2015; Dastan & Gurler 2016; Barkhordari et al. 2016). According to Yan & Yang (2015) Perceived ease of use affected trust and trust had a significant positive effect on usage intention. Perceived ease of use was found to be one of the major predictors of Perceived public value (Hujran et al., 2015). Tella & Abdulmumin (2015) found that ease of use significantly contributes to user's satisfaction with EP system and the correlation between anonymity, ease of payment and traceability was partially weak. Cabanillas et al., (2014a) in their research article analyzed the effect of gender on consumer's acceptance of MPS in Spain and findings reported the impact of the ease of use on usefulness of the payment system was higher among men than among women. And impact of the ease of use on usefulness of the payment system was higher among men than among women. The above findings suggest that perceived ease of use is a major predictor of behavior intention to use EP system.

### 3.2.2. Complexity

According to Rogers (1993) complexity can be defined as "the degree to which an innovation is perceived as difficult to understand and use". Obviously, the harder it is for an adopter to use or perceive the use of an innovation, the less likely that the idea will be consumed. Two studies reviewed this variable; of which one study reported complexity as an important determinant of EP system adoption (Odumeru 2013). One study found insignificant relationship of complexity with adoption decision of EP SYSTEM (He et al. 2006).

### 3.2.2 Usability

Adoption of any electronic system relies heavily on the users' perception, attitude, skills, abilities, and handling the system with expertise. A system should be easy and simple to handle. Its usability lies in its easiness and less efforts invested by the users. But the study conducted by Barkhordari et al. (2016) found that effect of usability on consumer's perceived security was insignificant. So, it can be said that usability of system is not considered by customers in adoption of EP system.

### 3.2.3 Convenience

According to Kim, Tao, Shin, and Kim (2010) customers believe in the benefits of technology when the technology makes people's lives easier and it reforms the difficulty of performing common tasks. Humbani & Wiese (2018) found that convenience had significant influence on behavior intention to use EP system and moderating effect of gender only affects the adoption of EP system. Convenience significantly contributes to user's satisfaction with EP system and that there was significant correlation between perceived speed, perceived security and convenience (Tella & Abdulmumin, 2015).

### 3.3 Social Influence

Social influence is defined as the degree to which an individual perceives that others recommend/believe that how important it is for him or her to use the new system. The three construct related to social influence are:

- 1) Subjective norm (TRA, TAM2/IDTPB, TPB)
- 2) Social factors (MPCU)
- 3) Image (IDT)

Social influence as a direct determinant of behavioral intention is represented as subjective norm in TRA, TAM2, TPB/DTPB and C-TAM-TPB, social factors in MPCU, and image in IDT. Thompson, Higgins and Howell (1991) used the term social norms in defining their construct, and acknowledge its similarity to subjective norm within TRA. While they have different labels, each of these constructs contains the explicit or implicit notion that the individual's behavior is influenced by the way in which they believe others will view them as a result of having used the technology. Social influence is another one of the most studied variables like performance expectancy. It was studied in eighteen articles. Of the eighteen studies, fifteen studies reported that there is positive and significant impact on behavior intention of users towards EP system. (e.g., Rahi et al., 2018; Baptista & Oliveira 2017; Abrahao et al., 2016; Bapista & Oliveira 2015; Slade et al., 2015; and

Venkateshet al.,2012). Lewis et al. (2015) found that social influence reduces perceived risk. Some of the studies have also reported that social influence does not significantly influence behavior intention to use EP system (Gaitan et al., 2015; Alalwan et al., 2017). According to Lu et al. (2011) mobile payment services may be considered more of a lifestyle service than a necessity; and the use of mobile payment services is associated with a social image. And image had strong positive effect on behavioral intention to adopt EP system. So, there is further need to investigate this variable in future. Cabanillas et al. (2014a) in their research article analyzed the effect of gender on consumer's acceptance of mobile payment systems (MPS) in Spain and findings reported that external influence, based on social image and subjective norms had the highest impact on intention to use MPS and this strong link is due to the online environment where the user conducted his/her activity. Hence, it can be concluded that behavior intention towards EP system is highly affected by social influence in most of the previous studies. This means that opinion of close ones play significant role in influencing behavior intention of users to adopt EP system. Therefore, there is a need to explore the impact of social influence further on behavior intention.

### 3.4 Innovativeness

According to Hirschman (1980) innovativeness reflects a person's desire to seek out the new and different. On an individual basis, every consumer is, to some extent, an innovator; all of us over the course of our lives adopt some objects or ideas that are new in our perception. Thakur and Srivastava (2014) found personal innovativeness to affect users' intentions but not non-users' intentions to adopt mobile payments in developing countries like India. In two studies significant and positive relationships between innovativeness and behavior intention were reported (Tan,Chong, and Hew,2014 and Slade et al., 2015). Humbani and Wiese (2018) findings revealed innovativeness to be insignificant to use electronic payment system. It can thus be said that innovativeness may or may not significant influence the behavior intention to use EP system. An innovative method of payment system is usually preferred by the people with some exceptions in some cases.

### 3.5 Facilitating Conditions

Facilitating conditions are defined as the degree to which an individual believes that an organizational and technical infrastructure exists to support use of the system. This definition captures concepts embodied by three different constructs:

- 1) Perceived behavioral control (TPB/DTPB, C-TAM-TPB)
- 2) Facilitating conditions (MPCU)
- 3) Compatibility (IDT)

Each of these constructs is operationalized to include aspects of the technological and/or organizational environment that are designed to remove barriers to use a particular technology. Studies have shown that facilitating conditions have differential impact on behavior intention and actual use. As it has significant impact on behavior but not on the intention (Venkatesh et al., 2003; Baptista & Oliveira 2017).It was one of the most studied variables in the past. It was reviewed in seven studies. Of which five studies found positive and significant relationship with the behavior intention to use EP system (Rahi et al. 2018; Lewis, Marquet, Palmer and Zhao 2015; Alalwan et al. 2017; Ting et al. 2015 and Venkatesh et al., 2012). There were however, another two studies which reported the insignificant or no influence behavior intention to use EP system (Slade et al. 2015; and Gaitan et al., 2015).While some of the studies also revealed that it has positive and significant influence some researchers have also claimed that it does not. Hence, it can be said that facilitating conditions such as infrastructure and availability of technology to the users play an important role in the adoption of EP system to some extent. If the personal factors and other environment factors are more significant then it may have weak impact on behavior intention.

#### 3.5.1 Perceived Compatibility

Perceived compatibility encompasses the reconcilability of an innovation with existing values, behavioral patterns, and experiences. Extant research shows positive effects of perceived compatibility on both

the attitude toward using a technology and perceived usefulness (Hardgrave, Davis & Riemenschneider, 2003). Compatibility has been defined as the consistency between an innovation and its values, experiences and the needs of potential adopters (Rogers, 1995). Five studies reviewed the perceived compatibility. Of which all five had positive significant impact on behavior intention and attitude to adopt EP system (Humbani & Wiese, 2018; Odumeru 2013; Lu et al., 2011; Schierz et al. 2010; and He et al., 2006).

### 3.6 Perceived Safety (Behavioral Beliefs)

Perceived or subjective safety refers to the users' level of comfort and perception of risk, without consideration of standards or safety history. Perceived safety was one of the least studied variables in the past. Only one study conducted by Ting et al., (2015) found that perceived safety had positive effect on attitude towards behavior intention to use MPS. This decrease in safety measures may result in low level of adoption of EP system. This needs to be further investigated as there is little research on this variable.

### 3.7 Habit

Habit reflects the multiple results of previous experiences (Venkatesh et al., 2012). According to Ajzen (2002) the frequency of past behaviour is considered to be one of the principal determinants of present behaviour. If the users find EP system useful, they tend to use it in their tasks and routines regularly. Habit and past experience were used interchangeably in the literature and have similar approach and meaning. Past experience in terms of EP system may be the experience of making transaction electronically. Experience is an important variable as there was strong positive relationship between past experience and the perceived frictionless use (Treiblmaier et al. 2004). Hence, it can be said that past experience influences the behavior intention to use EP system. Baptista & Oliveira (2017) found significant relationship between habit and behavior intention to use EP system. The relationship of habit with behavioral intention and use behavior were significant but effect of age and gender do not moderate habit (Venkatesh et al., 2012). Habit has been found to be one of the main antecedents in the mobile internet technology and the only key construct that explains use behavior directly and indirectly through behavior intention (Gaitan et al., 2015). Habit may directly influence the behavior intention to use EP system (Slade et al. 2015; and Baptista & Oliveira 2015). Thus, habit has a positive effect on user's behavior intention and actual use of electronic payment system, as all five studies conducted in the past showed positive relationship. That means, once the people become habitual to use electronic payment system for performing various activities and they perform this system on a routine basis.

### 3.8 Hedonic Motivation/ Perceived Enjoyment

Hedonic motivation is defined as the fun or pleasure derived from using a technology, and it has been shown to play an important role in determining technology acceptance and use (Brown and Venkatesh, 2005). Hedonic motivation refers to the level of fun or pleasure derived from using mobile banking services (Venkatesh et al., 2012). Hedonic motivation and perceived enjoyment were used interchangeably in the literature and have similar approach and meaning. Perceived enjoyment is defined as the extent to which using a specific system is perceived to be enjoyable in its own rights, aside from any performance consequences resulting from system use. Usually, it has significant impact on behavior intention to adopt EP system (Slade et al., 2015; Alalwan et al. 2017; Baptista & Oliveira 2015; and Venkatesh et al., 2012). But it may also have negative impact on EP system as current mobile banking services can be considered as unpleasant or boring, contributing negatively to intention, as a resistance factor. Sometimes, people intend to use the system whenever they have a need for some kind of money movement, such as paying bills or transferring money, but derive no pleasure, positive emotion or personal satisfaction from the action (Baptista & Oliveira, 2017). Slade et al. (2015) reported significant influence of hedonic motivation on behavior intention but when the addition of trust and perceived risk were made, the previously significant effect of hedonic motivation became insignificant. Also, trust and perceived risk may disturb this relationship resulting it to be insignificant. Because safety of money is usually more crucial than pleasure. Gaitan et al. (2015) reported insignificant influence of hedonic motivation on behavior intention. Lewis et al. (2015) found that perceived enjoyment had no direct

significant link with intention to use but had a significant indirect effect via perceived usefulness. Hence, it can be said that some people derive pleasure and sense of enjoyment using the EP system. And some studies showed that people do not derive any pleasure and enjoyment by using it.

### 3.9 Price Value

Price value is the consumers' cognitive trade-off between the perceived benefits of EP system and the monetary cost of using it (Venkatesh et al., 2012). Pricing of EP system plays a significant role in the adoption of the system. If huge capital/ cost and high set up cost is involved in the system the customers will have negative attitude towards the adoption of EP system. Nine studies were found to have examined price value. Of which five studies concluded the positive and significant influence of price value on behavior intention to use EP system (Baptista & Oliveira, 2017; Alalwan et al. 2017; Gaitan et al. 2015; and Humbani & Wiese 2018). And two studies reported insignificant influence of price value on behavior intention to use EP system (Slade et al., 2015; and Bapista & Oliveira, 2015; and Abrahao et al., 2016). Hence, it can be said that people consider the cost involved in the system and the benefits derived from it. On the controversial side, two studies reported insignificant impact which means people will use the system irrespective of the cost involved in it without considering the benefits. Hence, it can be said that cost involved in any system should be considered as people hesitate to use the system which involves high set up cost. Some people do not consider this as an important variable while using and adoption the EP system.

### 3.10 Gamification

Gamification is the application of game-design elements and game principles in non-game contexts. Gamification commonly employs game design elements to improve user engagement, organizational productivity, flow, learning, crowd sourcing, employee recruitment and evaluation, ease of use, usefulness of systems, physical exercise, traffic violations, voter apathy, and more. A collection of research on gamification shows that a majority of studies on gamification find that it has positive effects on individuals. This variable was one of the least studied variables. Gamification positively and significantly influences behavioural intention, confirming the importance that the use of game mechanics and game design techniques can have on the intention to use mobile banking services (Baptista & Oliveira 2017).

### 3.11 Perceived Risk

According to Mandrik and Bao (2005) a consumer's perception of risk is derived from feelings of uncertainty or anxiety about the behaviour and the seriousness or importance of the possible negative outcomes of that behaviour. Perceived risk is composed of behavioral and environmental uncertainty. Behavioral uncertainty exists due to the impersonal nature of the internet. Behavioral intention to adopt electronic payment system will be negatively affected by perceptions of risk. Since, it is such a distal medium, online service providers could opportunistically and take advantage of the user. Environment risk can be defined as the uncertainties in the environment which may affect the use of EP system. Electronic system always carries risk with it and with the technology advancements this risk also increases. Perceived risk is one of the most studied variables; ten papers were found to have examined the perceived risk of user's towards EP system. Of which ten studies, only three studies reported the positive impact of perceived risk on the behaviour intention to use EP system (Slade et al. 2015; and Odumeru 2013). Nguyen & Huynh (2018) reported that Perceived risk has the negative impact on trust, perceived ease of use, perceived usefulness and EP system adoption factors, and only negative relationship between perceived risk and EP system adoption was statistically significant. Perceived risk had significant negative influence on intention to use EP system (Lewis et al. 2015; Lu et al., 2011; Abrahao et al., 2016; Slade et al., 2015; and Humbani & Wiese, 2018;). A research conducted by Dastan & Gurler (2016) in Turkey found negative significant relationship between environmental risk and perceived trust. Perceived risk may establish a negative relationship with the intention to use, due to the uncertainty perceived by the new user and/or to the eventual negative consequences of the adoption of the technology or system (Cabanillas et al., 2014a). It can thus be said that the perceived risk or fear of loss or the negative

outcomes hinders the adoption of the EP system. People are risk sensitive and avoid taking risks in any field. So, EP system providers must ensure a risk free system to increase the adoption of this system. It is necessary to establish new security systems for electronic payments to ensure the security of customer transactions and to generate confidence thereby improving attitudes toward them.

### 3.12 Discomfort

Perceived lack of control over technology and a feeling of being overwhelmed by a system may be defined as the discomfort. Humbani & Wiese (2018) reviewed discomfort and found insignificant affect over behaviour intention towards EP system adoption.

### 3.13 Perceived Security

Factor that fosters trust in the web is perceived protection of security, which consists of several features: authentication, protection, verification and encryption (Kim, Ferrin, & Rao, 2008). Perceived security is one of the most studied variables in the past. Of the eleven studies examined; ten reported positive and significant impact of perceived security on the behaviour intention of the users to adopt EP system. Perceived security is also highly valued by users and had significant effects on consumer's EP system use as contributing significantly to their perception of websites' trustworthiness (Sanchez-torres et al., 2018; Youssef et al. 2017; Ghorban et al. 2011; Barkhordari et al. 2016; & Kim et al. 2010). Perceived security is statistically significant and there exist significant correlation between perceived speed, perceived security and convenience (Tella & Abdulmumin, 2015). Schierz et al., 2010 found positive link between perceived security (i.e., low perceived risk) and the attitude towards using mobile payment services and findings supported the proposed hypothesis. On the contrary, one study conducted by Teoh et al. 2013, reported that security was not significantly associated with consumer's perception towards e-payment. Hence, it can be said that security in EP system is highly preferred by the users. Their behaviour intention is positively related with the perceived security provided by the system.

### 3.14 Perceived Privacy

Privacy is the variable that directly affects web trust; this is defined as the website user's perception that the online transaction is controlled and protected against any unauthorized use. It fosters the trust of the users in the online transactions. Only one study was found to examine this variable. Sanchez-Torres et al. (2018) found that perceived privacy had significant positive impact on the trust and it is the important aspect for developing a perception of e- banking as trustworthy. Therefore, it can be said that privacy may be valued by the users and considered while adopting the EP system. When transactions are protected and there is less risk of unauthorized users people may tend to use that system frequently. Therefore, this variable may be considered in future studies on EP system.

### 3.15 Cultural Dimension (Uncertainty Avoidance, Power Distance, Masculinity\Femininity, Individualism\Collectivism, Long term\Short term Orientation)

Hofstede (1997) defines national culture as “the collective programming of the mind which distinguishes the members in one human group from another”. Five dimensions defined by (Hofstede, 1997) are as follows:

- Power Distance (PD): the extent to which the less powerful members of group or society accept and expect that power is unequally distributed;
- Uncertainty Avoidance (UA): the extent to which the members of group or society feel threatened by unknown situations;
- Individualism vs. Collectivism (IC): the extent to which individuals are integrated into groups;
- Masculinity vs. Femininity (MF): the extent to which gender roles are assigned in a culture;
- Long-Term vs. Short-Term Orientation (LSO): a society's preference to be more forward looking or future oriented.



Hujran et al. (2015) in their research article directed our attention towards national culture as they addressed the government adoption problem at the national level. The findings showed that out of the five cultural constructs, only uncertainty avoidance and power had significant and direct effects on both perceived public and perceived ease of use. Baptista & Oliveira (2015) found that moderating effect of masculinity/femininity were insignificant but moderating effect of individualism/collectivism, uncertainty avoidance, long/short term and power distance were statistically significant on behaviour intention and user behaviour towards EP system.

### **3.16 Government Support**

Government support in the EP system may involve the low cost internet service, infrastructure, protection from unauthorized users and various laws to protect the interest of the users. Sanchez-Torres et al. (2018) found that Government support had no impact on the intention to use e-banking in Colombia. These findings showed that government support had no significant impact on behaviour intention. Hence, it can be said that users do not consider the role of government in using EP system.

### **3.17 Quality of Information**

Quality of information can be defined as preciseness and accuracy of the information provided by the website or the system. This has been found to be was one of the least studied variables. Quality of information had significant impact on behaviour intention to use EP system and positively affects the perception of trust (Sanchez-Torres et al., 2018). So, it can be said that quality of information provided on the websites are important for influencing the behaviour intention of users towards EP system.

### **3.18 Perceived Public Value**

In one study perceived usefulness and perceived ease of use were replaced by Perceived public value. The study conducted by Hujran et al. (2015) reported that perceived public value has no direct significant effect on behavioral intention to adopt e-government services in Jordan.

### **3.19 Trust**

Trust is one of the most important variables in a user's decision to make online transactions; it is defined as the psychological state of a client's perception of the seller's integrity and benevolence (Zhu, Lee, Neal & Chen., 2011). Trust was among one of the most studied variables in the past. Of sixteen studies reviewed; twelve studies reported positive significant influence of trust on behaviour intention to use EP system (for e.g. Kim et al. 2010; Ting, Yacob, Liew and Lau 2016; and Yan & Yang 2015 etc.). Sanchez-Torres et al. (2018) study validates the strong influence of trust on both the intention to use and the actual use of e-banking. According to Nguyen & Huynh (2018) Trust had positive impact on perceived ease of use, perceived usefulness and e-payment adoption. Positive paths from trust to perceived ease of use and e-payment adoption were statistically significant. The relationship between trust and perceived usefulness were not statistically significant. Alalwan et al. (2017) found that both trust and effort expectancy had a significant influence on performance expectancy. Barkhordari et al. (2016) reported that perceived trust had significant effects on consumer's electronic payment system use and there was significant impact of perceived security on perceived trust. Positive relationship between perceived reputation and trust were reported but negative significant relationship between environmental risk and perceived trust. Relationship between perceived trust and attitude was also positively significant (Dastan & Gurler, 2016). Slade et al., (2015) findings showed significant negative relationship between trust and perceived risk and trust had no significant relationship with behaviour intention. Paths on effects of initial trust in mobile payment services to customer's behavioral intention, perceived risk and perceived benefit were significant. The hypothesized path from trust in internet payment services to initial trust in mobile payment services was also significant. The moderating effect of trust in internet payment services on the paths of initial trust in mobile payment services to behavioral intention, perceived risk, and relative advantage were all significant at 0.01 (Slade et al., 2015). Hujran et al. (2015) revealed that trust was also a major predictor of perceived public value and perceived ease of use. Cabanillas et al. (2014a) found impact of

trust on the ease of use on m-payment system was significantly higher among young users, than older ones and young users established a stronger relationship between perceived trust and attitude than older users. Results also confirmed that the impact of perceived trust in the payment system on the attitude towards it is greater among women than among men. Two studies reported that trust was insignificantly associated with consumer's perception and their behaviour towards EP system (Slade et al. 2015; and Teoh et al., 2013). Treiblmaier et al. (2004) findings showed that there was positive relationship between past experience and trust related to EP system security. Hence, of the fourteen studies which reviewed the influence of trust, eleven studies found positive influence of trust. One study found negatively significant relationship and two studies found insignificant relationship. So, it can be said that low trust in electronic payment system acts as a barrier in the adoption of this system. Therefore, high degree of trust is necessary for the adoption of electronic payment system.

### 3.20 Self-Efficacy

Self-efficacy is an individual's belief in their innate ability to achieve goals. Albert Bandura (1982) defines it as a personal judgment of "how well one can execute courses of actions required to deal with prospective situations". Individuals who have high self-efficacy will exert sufficient effort that, if well executed, leads to successful outcomes, whereas those with low self-efficacy are likely to cease effort early and fail. Teoh et al. (2013) findings revealed that self efficacy was significantly associated with consumer's perception toward EP system in Malaysia. Reason for the significant result coupled with the fact that EP system is easy to use, the respondents would have perceived that they too have the skills and capability to complete the financial transactions.

### 3.21 Speed

Speed may be defined as the rate at which something moves or works. In the context of EP system, speed refers to the time taken by the system to perform the task or the time taken to process the transaction. Transactions performed electronically are fast and helps to save time. One study examined the role of the speed on the behaviour intention of the users to adopt EP system. Tella & Abdulmumin (2015) found that speed significantly contributes to user's satisfaction with EP system and user's mostly satisfied with perceived speed. And there was significant correlation between perceived speed, perceived security and convenience. Thus, it can be said that people considered speed as an important aspect of EP system adoption.

### 3.22 Structural Assurance

According to Yan & Yang (2015) structural assurance means that there exist adequate technological and legal structures to ensure payment security. In their research article a hypothesis stating that structural assurance positively affects user trust was formulated. The findings reported that structural assurance affected trust and trust had a significant positive effect on usage intention of MPS from the perspective of trust.

### 3.23 Ubiquity

Ubiquity means that with the help of mobile terminals and networks, users can access mobile payment at anytime from anywhere. Ubiquity is a main advantage of mobile payment compared to traditional and online payment. It frees users from the spatial and temporal limitations and enables them to conduct ubiquitous payment. Only one study examined the affect of ubiquity on behaviour intention from the perspective of trust and the findings showed the significant positive effect on usage intention to adopt MPS (Yan & Yang 2015).

### 3.24 Optimism

Optimism is a mental attitude reflecting a belief or hope that the outcome of some specific endeavor, or outcomes in general, will be positive, favorable, and desirable. Humbani & Wiese (2018) examined the influence of optimism on behaviour intention to use EP system, the findings were not in favor as people do not consider the optimism as a predictor of EP system adoption.

### 3.25 Anonymity

Anonymity may be defined as the state of an individual's personal identity, or personally identifiable information, being publicly unknown. Tella & Abdulmumin (2015) in their research examined that anonymity significantly contributes to user's satisfaction with EP system and the correlation between anonymity, ease of payment and traceability was partially weak.

### 3.26 Traceability

Traceability is the capability to trace something. In some cases, it is interpreted as the ability to verify the history, location, or application of an item by means of documented recorded identification. It can also be defined as the capability (and implementation) of keeping track of a given set or type of information to a given degree, or the ability to chronologically interrelated uniquely identifiable entities in a way that is verifiable. It was one of the least reviewed in the past. Tella & Abdulmumin (2015) in their research article found that traceability significantly contributes to user's satisfaction with e-payment system and the correlation between anonymity, ease of payment and traceability was partially weak.

### 3.27 Perceived Benefits

EP system provides greater benefits such as freedom to individuals in paying at any time of the day and at any place. It can be availed 24\*7. Benefits of EP system were significantly associated with consumer's perception and behavior intention (Teoh et al., 2013). So, it can be said that benefits provided in EP system plays an important role in influencing the behavior intention of the users to adopt EP system.

### 3.28 Attitude

Attitude can be defined as "the degree to which a person has a favorable or unfavorable evaluation or appraisal of the behavior" (Ajzen, 1991). Attitude is one of the most studied variables. It was examined in the nine studies by the researchers. All studies reported the positive significant influence of variables towards the attitude to adopt EP system (Schierz et al., 2010; Hujran et al., 2015; Youssef et al., 2017; Rahi et al., 2017; Treiblmaier et al., 2004; Dastan & Gurler 2016; Ting et al., 2015; and Odumeru 2013). Dastan & Gurler (2016) found positive significant relationship between perceived trust and attitude, perceived mobility and attitude, attitude and intention to use. There were insignificant relationship between perceived usefulness and attitude, perceived ease of use and attitude were reported. Attitude was a direct function of both perceived public value and perceived ease of use and attitude directly and positively influences behavioral intentions. Attitude fully mediates the relationship between perceived public value and behavioral intention to use (Hujran et al., 2015). Cabanillas et al. (2014a) findings reported that young users established a stronger relationship between perceived trust and attitude than older users. It was also revealed that attitude establishes a significant relationship with women's intention to use MPS and an insignificant one among men. Thus, it can be concluded that attitude towards something forms the behavior. Attitude may be positive and may be negative it depends on how a person behaves or have a view about something. If a person have positive attitude towards the EP system then behavior intention to adopt the system will be high or vice versa.

### 3.29 Perceived Frictionless Use

It can be defined as if, making payment online is easy, rectifiable and someone will always be available for assistance. Treiblmaier et al. (2004) findings showed that there was strong positive relationship between past experience and the perceived frictionless use. So, it can be concluded that perceived frictionless use is affected by past experience of EP system.

### 3.30 Technical and Transaction Procedures

Consumers' perception of security in EP system use is determined by technical protections and security statements. It is also obvious that customers' perception of security is significant issue which influences consumers' EP system use. There was significant relationship between security statements and technical protections, with customers' perception of security. Both technical protections and security statements were

significant factors for improving consumers' perceived security (Ghorban, Jajae & Tahernejad, 2011; and Kim et al., 2010). Only the effects of technical and transaction procedures and usability on consumer's perceived trust were insignificant (Barkhordari et al., 2016).

### **3.31 Access to Security Guidelines/ Security Statements**

Effect of access to security guidelines on consumer's perceived security in EP system was significant and effect of security guidelines on consumer's perceived trust in EP system was significant (Barkhordari et al., 2016). Ghorban et al. (2011) reported that security statements had significant relationship with customers' perception of security and had significant role in improving security in terms of customers' perception.

### **3.32 Individual Mobility**

Mobile payment services can be used anytime and virtually anywhere (Dahlberg, Mallat & Oorni, 2003). Some EP system have the advantage of mobility. Two researches were conducted taking individual mobility as a variable and both studies reported positive and significant influence on behavior intention and attitude towards EP system (Dastan & Gurler 2016; and Schierz et al. 2010).

### **3.33 Perceived Reputation**

Reputation is an opinion about that EP system, typically as a result of social evaluation on a set of criteria. Perceived reputation was examined in one study by Dastan & Gurler (2016) which reported its positive relationship with trust and adoption of EP system. Hence it can be said that reputation affects trust of customers which ultimately affects the adoption of EP system.

### **3.34 E-Customer Service**

E-customer service refers to the service level, handling of queries, assisting the customers and various policies provided for the customers. These services help to build the trust of customers in the system and ultimately adoption of the system. Ghani et al. (2017) reported that the relationship between customer service to customer satisfaction and intention to adopt internet banking was statistically significant. It can thus be said that if service providers avail the e-customer services it will affect the customer satisfaction which ultimately affect the behavior intention to adopt EP system.

### **3.35 Trialability**

According to Rogers (1993) trialability can be defined as "the degree to which an innovation may be experimented with on a limited basis". Generally, new ideas that may be tried on instalment basis will be adopted more quickly than innovations that are not divisible. Odumeru (2013) reported that trialability influences the adoption of EP system. On the contrary He et al. 2006, found insignificant relationship of trialability with adoption of EP system.

### **3.36 Observability**

According to Rogers (1993) observability can be defined as "the degree to which the outcomes of an innovation are visible to others". The easier it is for individuals to see the result of an innovation, the more likely they are to adopt such idea. Odumeru (2013) reported significant relationship between observability and adoption of EP system. On the controversial side, one study reported insignificant relationship between the two (He et al. 2006).

### **3.37 Customer Satisfaction**

Customer satisfaction provides a leading indicator of consumer purchase intentions/use intentions and loyalty towards any system. The consumer will feel satisfied if he/she perceives the fulfillment of the required level of honesty benevolence and competence in the website. The relationship between customer service to customer satisfaction and intention to adopt EP system was statistically significant and relationship between customer satisfaction and behavior intention was significant. Indirect relationship between customer satisfaction

and behavior intention, perceived ease of use and customer satisfaction was also found to be significant. Importance performance matrix analysis (IPMA) showed that customer satisfaction is the most important factor to determine behavior intention to adopt internet banking (Ghani et al., 2017).



**Table 1: Factors affecting behavior intention towards EP system**

<b>Independent variable</b>	<b>Direction</b>	<b>Studies</b>	<b>Total number</b>
Performance expectancy	+	Baptista & Oliveira (2017), Slade et al. (2015), Tarhini et al. (2016), Gaitan et al.( 2015), Alalwan et al. (2017), Sanchez-Torres et al. (2018), Rahi et al. (2018), Bapista & Oliveira (2015), Slade et al. (2015), Abrahao et al. (2016), Venkatesh et al., (2012), Schierz et al. (2010), Ghani et al. (2017), Youssef et al. (2017), Rahi et al. (2017), Nguyen & Huynh (2018), Barkhordari et al. (2016), Yan & Yang (2015), Ting et al. (2015), Lewis et al. (2015), Lu et al. (2011), Odumeru (2013), Haryani, Motwani and Matharu (2015), Puthur, Mahadevan and George (2016), Brahmbhatt (2012), Hussein, Mohamed, Ahlan, Mahmud, and Aditiawarman, (2010), Schaupp, Carter and Hobbs (2010), Carter & Schaupp (2008)	28
	Not sig.	Dastan & Gurler (2016), He et al. (2006)	2
<b>Total</b>			<b>30</b>
Effort expectancy	+	Baptista & Oliveira (2017), Gaitan et al. (2015), Alalwan et al. (2017), Rahi et al. (2018), Abrahao et al. (2016), Venkatesh et al., (2012), Schierz et al. (2010), Hujran et al. (2015), Ghani et al. (2017), Youssef et al. (2017), Rahi et al. (2017), Nguyen & Huynh (2018), Tella & Abdulmumin (2015), Teoh et al. (2013), Yan & Yang (2015), Ting et al. (2016), Odumeru (2013), Tella & Abdulmumin (2015), Humbani & Wiese (2018), Haryani, Motwani and Matharu (2015), Puthur, Mahadevan and George (2016), Brahmbhatt (2012), Hussein, Mohamed, Ahlan, Mahmud, and Aditiawarman, (2010)	23
	Not sig.	Slade et al. (2015), Tarhini et al. (2016), Sanchez-Torres et al. (2018), Bapista & Oliveira (2015), Slade et al. (2015), Barkhordari et al. (2016), Dastan & Gurler (2016), Lewis et al. (2015), He et al. (2006), Schaupp, Carter and Hobbs (2010)	11
<b>Total</b>			<b>34</b>
Social influence	+	Baptista & Oliveira (2017), Schierz et al. (2010), Slade et al. (2015), Tarhini et al. (2016), Alalwan et al. (2017), Rahi et al. (2018), Slade et al. (2015), Abrahao et al. (2016), Ting et al. (2015), Lewis et al. (2015), Venkatesh et al., (2012), Brahmbhatt (2012), Ramayah, Yusoff, Jamaludin and Ibrahim (2009), Schaupp, Carter and Hobbs (2010), Carter & Schaupp (2008), Lu et al. (2011), Hussein, Mohamed, Ahlan, Mahmud, and Aditiawarman, (2010)	17
	Not sig.	Gaitan et al. (2015), Alalwan et al. (2017), Bapista & Oliveira (2015)	3

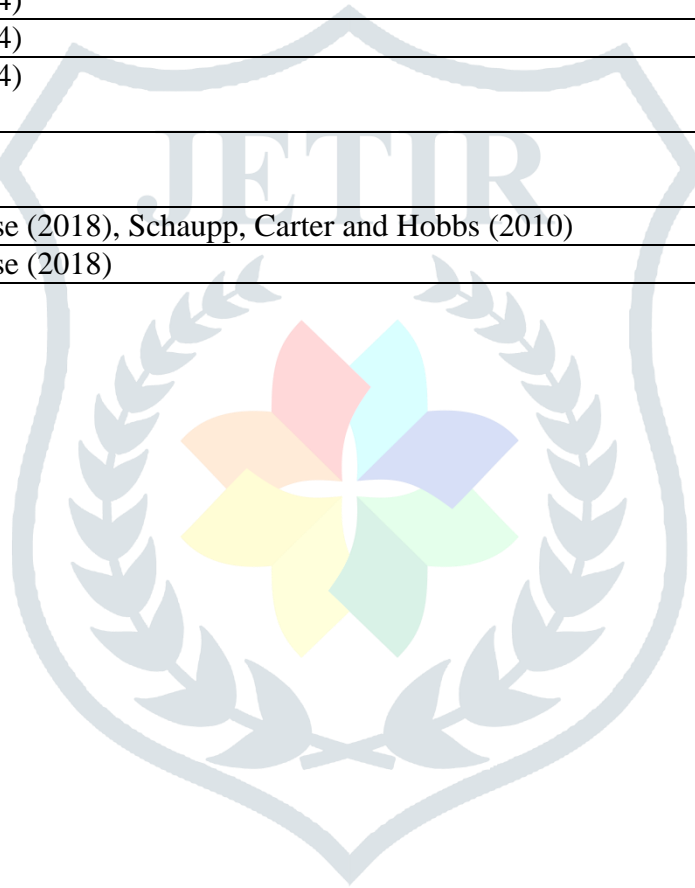
Independent variable	Direction	Studies	Total number
<b>Total</b>			<b>18</b>
Facilitating conditions	+	Rahi et al. (2018), Ting et al. (2015), Lewis et al. (2015), Alalwan et al. (2017), Venkatesh et al., (2012), Schierz et al. (2010), Lu et al. (2011), He et al. (2006), Humbani & Wiese (2018), Odumeru (2013), Ramayah, Yusoff, Jamaludin and Ibrahim (2009), Hussein, Mohamed, Ahlan, Mahmud, and Aditiawarman, (2010), Ting et al. (2015)	12
	Not sig.	Baptista & Oliveira (2017), Slade et al. (2015), Gaitan et al. (2015)	3
<b>Total</b>			<b>15</b>
Hedonic motivation	+	Slade et al. (2015), Alalwan et al. (2017), Baptista & Oliveira (2015), Venkatesh et al., (2012)	4
	-	Baptista & Oliveira (2017)	1
	Not sig.	Gaitan et al. (2015), Lewis et al. (2015),	2
<b>Total</b>			<b>7</b>
Habit	+	Baptista & Oliveira (2017), Slade et al. (2015), Gaitan et al. (2015), Baptista & Oliveira (2015), Venkatesh et al., (2012), Treiblmaier et al. (2004)	6
Price value	+	Baptista & Oliveira (2017), Gaitan et al. (2015), Alalwan et al. (2017), Venkatesh et al., (2012), Humbani & Wiese (2018)	5
	-	Lu et al. (2011)	1
	Not sig.	Slade et al. (2015), Baptista & Oliveira (2015), Abrahao et al. (2016)	3
<b>Total</b>			<b>9</b>
Gamification	+	Baptista & Oliveira (2017)	1
Perceived risk	+	Slade et al. (2015), Odumeru (2013), Schaupp, Carter and Hobbs (2010)	3
	-	Lu et al. (2011), Dastan & Gurler (2016), Slade et al. (2015), Abrahao et al. (2016), Humbani & Wiese (2018), Lewis et al. (2015), Humbani & Wiese (2018), Brahmhatt (2012)	7
<b>Total</b>			<b>10</b>
Perceived security/safety	+	Schierz et al. (2010), Sanchez-Torres et al. (2018), Barkhordari et al. (2016), Tella & Abdulmumin (2015), Harris et al. (2004), Kim et al. (2010), Ghorban et al. (2011), Ting et al. (2015), Youssef et al. (2017), Schaupp, Carter and Hobbs (2010)	10
	Not sig.	Teoh et al. (2013)	1
<b>Total</b>			<b>11</b>

Independent variable	Direction	Studies	Total number
Culture	+	Bapista & Oliveira (2015)	1
	Not sig.	Hujran et al. (2015)	1
<b>Total</b>			<b>2</b>
Ubiquity	+	Yan & Yang (2015), Tan et al. (2014), Thakur & Srivastava (2014)	3
Innovativeness	+	Slade et al. (2015),	1
	Not sig.	Humbani & Wiese (2018)	1
<b>Total</b>			<b>2</b>
Structural assistance	+	Yan & Yang (2015)	1
Trust	+	Slade et al. (2015), Hujran et al. (2015), Alalwan et al. (2017), Nguyen & Huynh (2018), Treiblmaier et al. (2004), Barkhordari et al. (2016), Kim et al. (2010), Yan & Yang (2015), Ting et al. (2016), Cabanillas et al. (2014), Hussein, Mohamed, Ahlan, Mahmud, and Aditiawarman, (2010), Carter & Schaupp (2008)	12
	-	Dastan & Gurler (2016)	1
	Not sig.	Teoh et al. (2013), Slade et al. (2015), Puthur, Mahadevan and George (2016)	3
<b>Total</b>			<b>16</b>
Speed	+	Tella & Abdulmumin (2015)	1
Perceived benefits	+	Teoh et al. (2013)	1
Attitude	+	Schierz et al. (2010), Hujran et al. (2015), Youssef et al. (2017), Rahi et al. (2017), Treiblmaier et al. (2004), Dastan & Gurler (2016), Ting et al. (2015), Odumeru (2013), Ramayah, Yusoff, Jamaludin and Ibrahim (2009)	9
Mobility	+	Dastan & Gurler (2016)	1
Perceived frictionless use	+	Treiblmaier et al. (2004)	1
Technical protection and security statement	+	Kim et al. (2010), Ghorban et al. (2011)	2



Independent variable	Direction	Studies	Total number
Perceived reputation	+	Schaupp, Carter and Hobbs (2010)	1
	-	Dastan & Gurler (2016)	1
Knowledge	+	Lewis et al. (2015)	1
Individual mobility	+	Schierz et al. (2010), Dastan & Gurler (2016)	2
Perceived public value	Not sig.	Hujran et al. 2015	1
E-customer service	+	Ghani et al. (2017)	1
Interpersonal and external influence	+	Ting et al. (2015)	1
Task technology fit	+	Tarhini et al. (2016)	1
Perceived credibility	+	Tarhini et al. (2016)	1
Customer satisfaction	+	Ghani et al. (2017), Andriani et al. (2017)	2
Government support	Not sig.	Sanchez-Torres et al. (2018)	1
Quality of information	+	Sanchez-Torres et al. (2018), Puthur, Mahadevan and George (2016)	2
Perceived privacy	+	Sanchez-Torres et al. (2018), Harris et al. (2004)	2
Triability	+	Odumeru (2013)	1
	Not sig.	He et al. (2006)	1
<b>Total</b>			<b>2</b>
Observability	+	Odumeru (2013)	1
	Not sig.	He et al. (2006)	1
<b>Total</b>			<b>2</b>
Anonymity	+	Tella & Abdulmumin (2015)	1

Independent variable	Direction	Studies	Total number
Traceability	+	Tella & Abdulmumin (2015)	1
Self efficacy	+	Teoh et al. (2013), Ting et al. (2015), Carter & Schaupp (2008)	3
Flexibility	+	Harris et al. (2004)	1
Functionality	+	Harris et al. (2004)	1
Data management	+	Harris et al. (2004)	1
Transaction procedure	Not sig.	Kim et al. (2010)	1
Optimism	Not sig.	Humbani & Wiese (2018), Schaupp, Carter and Hobbs (2010)	2
Discomfort	Not sig.	Humbani & Wiese (2018)	1



#### 4. FINDINGS AND DISCUSSION

Through an extensive literature review, forty four variables have been explored which are claimed to be affecting the consumer's behavior, attitude and actual use positively or negatively towards EP system. All these factors were found to either encourage or discourage the adoption of EP system. As reported by twenty eight studies, (Table 1) performance expectancy had positive significant impact on behavior intention towards the use of EP system. Twenty three studies reported positive significant influence of effort expectancy on behavior intention whereas, eleven studies reported insignificant influence on EP system adoption. Fifteen studies revealed positive significance influence of social influence on behavior intention whereas, three found insignificant influence on behavior intention. Twelve studies reported significant positive influence of facilitating conditions but three studies reported insignificant relationship with behavior intention to use EP system. Hedonic motivation was found to be positively significant in four studies, negatively significant in one study and insignificant in yet another study. Habit/past experience was positively significant in six previous reviews. Price value or cost was reported positively significant in five, insignificant in three and negatively significant in one previous research. Perceived risk was positively significant in three studies and negatively significant in seven studies. Perceived security was positively significant in ten studies and insignificant in one. Culture, ubiquity and innovativeness were all found to influence behavior intention positively. Trust was also one of the most studied variables in the past and was positively significant in twelve studies, negative in one and insignificant influence in two. Speed and perceived benefits were positively significant in one previous research. Attitude positively influenced behavior intention in nine previous studies. Similarly mobility, past experience and perceived frictionless use were found to be positively significant in previous research studies. Knowledge, e-customer service, interpersonal and external influence, quality of information, task technology fit, perceived credibility, customer satisfaction, flexibility, functionality, data management, complexity, trialability, observability, anonymity and traceability all were positively related with behavior intention to use EP system. Whereas, transaction procedure, optimism, discomfort, government support, complexity, trialability, observability and perceived public value were insignificant in some of the previous reviews. Perceived compatibility was positively significant in five studies and technical protection or security statement was significant in two. In short we can say that there were numerous variables which affected the behavior intention, attitude and use behavior of the consumers to adopt EP system negatively and positively. Performance expectancy, effort expectancy, social influence and facilitating conditions, perceived security, perceived trust and security were the most studied variables in the past studies. All these variables affected the behavior intention of the consumer's either positively or negatively. Some of them were the influencing variables whereas, only a few variables hinders the adoption and use of EP system among users.

#### 5. CONCLUSIONS AND SUGGESTIONS

The EP system has gained immense popularity over the last decades due to the enhanced spread and up-gradations of internet-based banking and shopping. As the world advances more with technology development, we can see the rise of EP system and payment processing devices. The use of traditional payments is decreasing day by day and people are adopting electronic payment system. This research examined the available literature for determining various factors affecting the behavior intention of the users to use electronic payment system. For this, the authors conducted an extensive review of empirical, conceptual research and review papers and identified major factors influencing the behavior intention of consumers towards EP system. Performance expectancy, effort expectancy, social influence, facilitating conditions, perceived security/safety, trust and attitude were the most studied variables in the previous studies. Perceived security, perceived risk have been found to be the major barrier in the adoption of EP system. Surprisingly some studies conducted in the developed nations such as UK and USA reported some variables had no significant influence on behavior intention to use EP system. The significance of effort expectancy is inconsistent in literature. Most of the studies conducted in the developing nations showed that effort expectancy had positive significant influence on behavior intention to use EP system. So, it can be

said that there is difference in the opinion of people of developed countries to the developing nations. Their perception towards the system may differ due to many factors such as the technological advancement, confidence, knowledge and their security measures to build the trust of the users in the system. This trust and customer satisfaction will automatically lead to the adoption of EP system. The differences in opinion may also be due to the target population selected for the sample as views or perception changes with the age, gender, education level, income level and their residential status. People living in urban areas have more access to the digital technologies as compared to the people living in the rural areas. That is why the results of different nations contradict. People prefer to use EP system because of the benefits, uniqueness, easiness, and productivity it provides to them. It helps to save time and improve their lifestyle. Customers should undertake training on information and communication technologies (ICT) programme. It will help them with practical and functional knowledge of computer; internet and associated area of ICT. The government, financial institutions and service providers should develop ICT policies and practices that would support the use and adoption of EP system. They can also take help from people around them while performing transactions electronically.

Awareness programmes should be conducted about using the digital payments and devices. EP services providers should invest more on digital advertising as it is the most informative source. It derives double benefits of saving the costs of promotion and has larger coverage. As people have easy access to these digital platforms. Most of the people have their social media accounts and use any kind of digital platform. So, it would be easy to inform them about the benefits and use of various EP systems through these platforms. Infrastructure is the prerequisite requirement for any system to work properly. In urban and semi urban areas this may not be the problem but in rural areas there is still a long way to go cashless in many of the developing nations. So, there is a need to develop a new monetary system, with a fully expanded banking system as well as uninterrupted power supply. ICT tools should be made more accessible to every individual. The government should develop ICT policies and practices that would support the use and adoption of EP system. As long as people perceive that the internet is not a safe place to conduct financial transactions then large scale adoption of EP system will be challenging. The EP system providers must focus on building the trust and faith of the people into them. They must ensure that security measures are strong enough to protect their personal information and data electronically. Consumer satisfaction can be gained only through better service, high downloading speed of the websites without any interruptions, strategies should be developed to gain new customers and to retain the existing consumers.

## 6. SCOPE FOR FUTURE RESEARCH

A review of the EP system literature revealed that only few empirical studies had been conducted to examine EP system adoption. Most of the studies conducted in the past had reviewed the behavior intention to use EP system. The future researchers can strengthen the analysis through investigating more research articles on EP system adoption. Future researches may be taken up with some additional variables which have been ignored in the earlier studies such as transnational and longitudinal aspects, demographic and psychographic effects etc. Empirical investigations may be carried out from time to time to cross validate and test the significance of the factors explored in the present study to understand the changes in the relationships of various factors which may occur over the span of time.

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