

# “Electronic payment system use: a mediator and a predictor of financial satisfaction”

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# ELECTRONIC PAYMENT SYSTEM USE: A MEDIATOR AND A PREDICTOR OF FINANCIAL SATISFACTION

## Abstract

This study investigates the direct and indirect effects of financial capability, financial advice, financial anxiety, and the use of an electronic payment system (EPS) on financial satisfaction. In the current era of digitalization and financial innovations, it seems quite unlikely that an individual remains unaffected by its use. The research was conducted in northern India on individual level using a partial least square structural equation modeling statistical technique to analyze responses collected from a closed-ended questionnaire using a 5-point Likert scale. The results show that financial capability, financial advice, financial anxiety, and EPS usage have a direct positive effect on an individual's financial satisfaction. EPS usage plays a significant mediating role, as all the financial constructs depict a positive effect on financial satisfaction via EPS use. These findings contribute to the literature by offering an understanding of the determinants of financial satisfaction in the context of a low-income developing country, as well as the vital role of using EPS in an individual's financial satisfaction in today's digitally driven era. The results of this study could be a useful factor for policymakers and digital service providers for implementation and control.

## Keywords

financial capability, financial advice, financial anxiety,  
developing country, India

## JEL Classification

D53, E42, G21

## INTRODUCTION

Financial satisfaction is a major element of not only financial well-being, but also overall life satisfaction (Woodyard & Robb, 2016). One of the key dimensions to achieve overall satisfaction is financial satisfaction (Loewe, Bagherzadeh, Araya-Castillo, Thieme, & Batista-Foguet, 2014). Several aspects have been explored that affect financial satisfaction (Davis & Runyan, 2016; Grable, Cupples, Fernatt, & Anderson, 2013; Hansen, Slagsvold, & Moum, 2008; Hsieh, 2004; Xiao & Porto, 2017), but the focus of the current study is on the use of digital platforms and how they can affect individuals' financial satisfaction. Studies reveal that with the global expansion of digital sources, the consumption pattern of consumers across the globe also changes (OECD, 2018). Electronic Payment System (EPS) is the essence of the electronic commerce. EPS is a critical issue in the successful implementation of new business models and usage of financial services (Kousaridas, Parissis, & Apostolopoulos, 2008). Besides, as e-commerce expands its horizons, the EPS also gains momentum (C. Kim, Tao, Shin, & K.-S. Kim, 2010). The use of digital platforms in payments can increase effectiveness and ease, which can reduce costs as well. Therefore, this may lead to enhanced financial satisfaction.

Financial capability can be better understood as the technical knowledge of an individual and how well he/she manages resources in each

situation (Taylor, 2011; Xiao & O'Neill, 2018). Enhanced financial capability has an amplifying impact on digital services usage and hence financial satisfaction (Xiao, C. Chen, & F. Chen, 2014; Königsheim, Lukas, & Nöth, 2017). The same phenomenon was also established by capability theory (Sen, 1993) that, along with the ability, the opportunity is also required to achieve the overall well-being. It is always better to seek competent financial advice before selecting any financial product (Stolper & Walter, 2017). Further, digital engagement leads to enhanced exposure to online sources of information through online experts (van Rooij, Lusardi, & Alessie, 2011). Thus, there seems to be a relationship between digital exposure and financial advice.

The fear of loss, resulting from a wrong decision, leads to financial anxiety (A. Cwynar, W. Cwynar, Kowerski, Filipek, & Szuba, 2020). A decision situation in which the person is deeply stressed (Roberts, Golding, Towell, & Weinreb, 1999) and is unable to show desired behavior is a situation of financial anxiety (Lusardi & Tufano, 2015). In the past, researchers established that access to online information and technical know-how is a tool to control stress levels (A. Cwynar, W. Cwynar, Kowerski, Filipek, & Szuba, 2020). As stated, the internet is a significant source of information and knowledge sharing in the form of online data bases and experts' financial advice (van Rooij, Lusardi, & Alessie, 2011). Thus, a relationship between financial advice and financial anxiety may exist as it appears from the literature available. Therefore, it becomes important that a relationship between EPS (digital source) and financial anxiety should be examined to substantiate upon the literature available and to facilitate policymakers in their work.

The originality of this study is based on the mediating role of the EPS usage, how an individual's financial capability, financial advice, and financial anxiety can affect the use of an electronic payment system and how EPS use can affect an individual's financial satisfaction. This paper bridges the link between financial constructs and the use of EPS, which keeps the study's contribution amongst the few in the existing literature. The findings of this study can help researchers to investigate this issue further, and service providers to understand the role of using EPS in individuals' financial satisfaction in order to develop effective tactics to assist consumers. The paper is organized as follows: introduction is followed by a literature review, methodology, results, discussion and conclusion, which also includes limitations to set the tone for future research endeavors in the area.

## 1. LITERATURE REVIEW

### 1.1. Financial advice and EPS use

The current digital explosion has led to the exchange of transactions and services online across various e-commerce and m-commerce channels (Hossain, Xi, Nurunnabi, & Hussain, 2020). Electronic payment system (EPS) is the backbone of a successful e-commerce platform for value exchange (C. Kim, Tao, Shin, & K.-S. Kim, 2010). As e-commerce gains popularity day by day with changing business models, it becomes quite evident that with it EPS also becomes a very critical component (Kousaridas, Parissis, & Apostolopoulos, 2008). Researches have proved that EPS is not only faster but also a safe, reliable, convenient and secure method of payment (M. Cotteleer, C. Cotteleer, & Prochnow, 2007).

A person's understanding of micro and macro-economic factors and personal finance is better known as financial knowledge (Rothwell, Khan, & Cherney, 2016). Financial knowledge helps an individual in choosing a correct financial product and thus leads to enhanced financial capability through financial know how (Braunstein & Welch, 2002). Advice can be a substitute for learning by one self (Calcagno & Monticone, 2015). It is an alternative way to improve the quality of individual's financial decision-making related to financial services and products. Various authors have argued it to be a substitute to financial literacy (A. Cwynar, W. Cwynar, Kowerski, Filipek, & Szuba, 2020). In the financial market that is full of growing complexity, it is always better to delegate the job by trusting on the services offered by professional financial advisors (Stolper & Walter, 2017). Financial advice seeking behavior is a form

of information seeking to make decisions based on marginal benefit and marginal cost (A. Cwynar, W. Cwynar, Kowerski, Filipek, & Szuba, 2020). Some researchers also highlighted that increased internet usage creates access to online experts and resources for advice (van Rooij, Lusardi, & Alessie, 2011). However, the authors failed to find any conclusive literature, which substantiates the point that financial advice seeking behavior has a positive impact on the use of EPS.

## 1.2. Financial anxiety and EPS use

All financial decisions involve an element of risk. This risk of loss of capital or personal bankruptcy leads to distress, which can be termed as financial anxiety (A. Cwynar, W. Cwynar, Kowerski, Filipek, & Szuba, 2020). Researchers around the world have conducted several empirical studies showing that low financial literacy contributes to improper behavior on the part of consumers of financial services, which leads to distress (Lusardi & Tufano, 2015). In a recent study, the authors argue that financial literacy affects the financial risk tolerance of the individual investors (Bayar, Sezgin, Öztürk, & Şaşmaz, 2020). However, more recent study concluded that financial anxiety may trigger financial advice seeking behavior but may not have any impact on the choice of mode of payment (Khan, Akhtar, Dey, & Ibrahim, 2020). Researchers have also established that increased financial anxiety affects the performance level (Joo, Durband, & Grable, 2008). More so, there are studies that have argued that financial anxiety is more amongst males and females born after 1995, as they have witnessed economic recession, wars, etc. (Khan, Akhtar, Dey, & Ibrahim, 2020). Research has also shown that professional financial advice complements financial literacy and thus controls negative behavior and stress (A. Cwynar, W. Cwynar, Kowerski, Filipek, & Szuba, 2020). However, there are studies that have concluded that the level of impact financial advice has on financial knowhow depends on the theme of the advice (Woodyard & Robb, 2016). There are also studies that confirm that increased internet usage leads to increased access to financial advice (van Rooij, Lusardi, & Alessie, 2011). Thus, it can be said that a relationship between financial knowledge and financial anxiety is already being established by many researchers across the globe. Previous literature also has shown that increased exposure to online resources leads to en-

hanced financial know-how via advice (van Rooij, Lusardi, & Alessie, 2011) (A. Cwynar, W. Cwynar, Kowerski, Filipek, & Szuba, 2020). However, no conclusive literature has been found that establishes a relationship between financial anxiety and increased usage of EPS, such as anxiousness in digital payment when shopping online.

## 1.3. Financial capability and EPS use

Financial capability can be defined as financial know-how, access to financial resources, and it also includes financial habits of a person (Lin, Bumcrot, Ulicny, Lusardi, Mottola, Kieffer, & Walsh, 2016). Financial capability can also be explained as the ability of an individual to manage his resources well in a given situation (Xiao & O'Neill, 2018). Some studies use financial capability as a synonym for financial literacy (Lusardi & Mitchell, 2014). However, financial capability is much more wider in its scope and includes financial literacy (Sherraden, 2013). It is also discussed as an ability to utilize financial know-how to take calculated financial decisions (Lusardi & Mitchell, 2014). More recently, researchers argued that willingness to plan for financial resources may have a positive impact on the financial capability of an individual (Xiao & O'Neill, 2018). Some of the researchers have used financial behavior to define financial capability (Atkinson, McKay, Collard, & Kempson, 2007). Many researchers argued that financial capability is the application of financial know-how to attain over financial well-being (Xiao, C. Chen, & F. Chen, 2014), and financial capability positively affects financial satisfaction (Çera, Khan, Belas, & Ribeiro, 2020). It also includes access to financial resources specifically for low-income population (Sherraden, 2013). Financially capable people are much more attracted towards digital financial products (Königsheim, Lukas, & Nöth, 2017). Recent studies have shown that generation Z or youths born in and after 1995 are much more digitally involved and active towards online resources (Khan, Akhtar, Dey, & Ibrahim, 2020). Some studies have thus safely identified financial capability as the ability to apply financial knowledge to depict the desired financial behavior (Xiao & Porto, 2016). Therefore, as can be derived from the literature, financial capability is associated with financial knowledge and access to financial resources, but the capability-based approach (Sen, 1993) also requires opportunity, so in this paper, given the lack of avail-

able literature, there is an attempt to examine the relationship between financial capability and the use of EPS. From the discussed literature, it is quite evident that this study will investigate how financial capability, financial advice, and financial anxiety influence the use of EPS by young people in the context of a developing country.

#### 1.4. EPS use and financial satisfaction

When evaluating financial capability and financial satisfaction in terms of behavior, attitude and knowledge, one would feel that the two of them are very much similar to each other (Joo & Grable, 2004; Xiao & Porto, 2017). To achieve financial satisfaction, an individual is required to achieve overall satisfaction in life (Michalos & Orlando, 2017; Xiao, Tang, & Shim, 2009). Financial satisfaction is a subjective measure of overall financial well-being and the state of being happy with the current economic resources at disposal (Xiao & O'Neill, 2018). Many researchers have related financial satisfaction with financial capability and have argued that financial capability leads to financial satisfaction (Xiao & Porto, 2016; Zainul, 2018). Financial capability leads to development of desirable financial behavior, which in turn leads to financial satisfaction (Xiao, C. Chen, & F. Chen, 2014). However, some studies also argued that financial satisfaction is sometimes very subjective (Joo & Grable, 2004). Researchers argued that the ability to plan effectively in terms of financial resources leads to financial satisfaction (Xiao & O'Neill, 2018). It is also achieved through efficient access to financial resources (Sherraden, 2013). Previous literature examined the relationship between financial satisfaction and income as how happy is an individual with his current financial condition (Joo & Grable, 2004), working sector (Ferrer-i Carbonell & Gërkhani, 2011), and even in relation to demographics (Kageyama & Matsuura, 2018). However, the authors were unable to find any specific literature in which financial satisfaction is associated with the use of EPS. There is also no conclusive study available in which EPS usage is identified as enhancing financial satisfaction. Therefore, this study will try to answer the question of how the use of EPS directly influences financial satisfaction of youth in the context of a developing country.

#### 1.5. EPS use as a mediator between financial advice and financial satisfaction

It has already been mentioned that proper financial know-how is required to select the correct financial product (Braunstein & Welch, 2002). There is a risk of loss associated with incorrect financial decisions. Financial advice reduces the risk of loss and is an alternative way of taking effective financial decisions; it can also be taken as a substitute for financial literacy (A. Cwynar, W. Cwynar, Kowerski, Filipek, & Szuba, 2020). Financial advice is also considered as a source of self-learning in previous studies (Calcagno & Monticone, 2015). In a rapidly growing and dynamic financial market, it is always better to seek financial advice before deciding to invest in a financial product (Stolper & Walter, 2017). More so, researchers have also established that enhanced exposure to digital platforms leads to increased access to online experts and resources for advice (van Rooij, Lusardi, & Alessie, 2011). Besides, researchers in the previous literature have also deliberated that desired behavior in the financial product choice is facilitated by sound financial advice (A. Cwynar, W. Cwynar, Kowerski, Filipek, & Szuba, 2020) thus affecting financial satisfaction. Now that this study examines the impact of financial advice on the use of EPS, it makes sense to study whether the effect of financial advice (independent variable) on financial satisfaction (dependent variable) is mediated by the EPS use.

#### 1.6. EPS use as a mediator between financial anxiety and financial satisfaction

Financial anxiety is the stress originating from risk of loss associated with financial decision making (A. Cwynar, W. Cwynar, Kowerski, Filipek, & Szuba, 2020). It is triggered in a situation where an individual is unable to depict the desired behavior, which in turn affects performance (Lusardi & Tufano, 2015). It is associated with the stress that manifests itself in a given decision-making situation (Roberts, Golding, Towell, & Weinreb, 1999). It can be reduced with the use of financial know-how and advice (A. Cwynar, W. Cwynar, Kowerski, Filipek, & Szuba, 2020). However, researchers have also established that in order to

reduce stress by know-how and advice, the theme of financial advice is the key (Woodyard & Robb, 2016). Increased exposure to digital platforms leads to increased financial know-how through online resources and experts' advice (van Rooij, Lusardi, & Alessie, 2011) and thus reduces financial anxiety. Some recent studies have argued that financial anxiety leads to distress, which becomes the key in the development of financial advice seeking behavior among individuals in a decision-making situation (Khan, Akhtar, Dey, & Ibrahim, 2020). It is believed that it would be quite reasonable if the relationship between financial anxiety (independent variable) and financial satisfaction (dependent variable) was established taking the EPS use (digital platform) as a mediating factor.

### 1.7. EPS use as a mediator between financial capability and financial satisfaction

Financial capability, as discussed, can be expressed as a synonym for financial know-how (Xiao & O'Neill, 2018). Some studies argued that financial capability is much more comprehensive and includes financial literacy (Sherraden, 2013). The ability to plan for management of financial resources in an effective manner has a positive impact on the financial capability of an individual (Xiao & O'Neill, 2018). An individual who is able to better manage his financial obligations can be

called financially capable (Taylor, 2011) and thus financially satisfied. It is the application of financial know-how to achieve overall financial well-being, which leads to financial satisfaction (Xiao, C. Chen, & F. Chen, 2014). Capability theory (Sen, 1993) states that, along with ability, opportunity is also required to gain complete freedom. It is also established in previous studies that people who are high on financial capability are much inclined towards usage of digital services (Königsheim, Lukas, & Nöth, 2017). Researchers in the past also stated that financial capability amplified financial satisfaction (Xiao, C. Chen, & F. Chen, 2014). Therefore, it is quite logical to test whether the relationship between financial capability (independent variable) and financial satisfaction (dependent variable) is mediated by EPS use as it may be an opportunity in the current digital era to affect financial satisfaction.

## 2. AIMS AND HYPOTHESES

The study aims to answer the question of how EPS use mediates the influences of financial capability, financial advice and financial anxiety on financial satisfaction. Thus, the following hypotheses were formulated.

The proposed hypotheses are clearly illustrated by a theoretical model (see Figure 1).

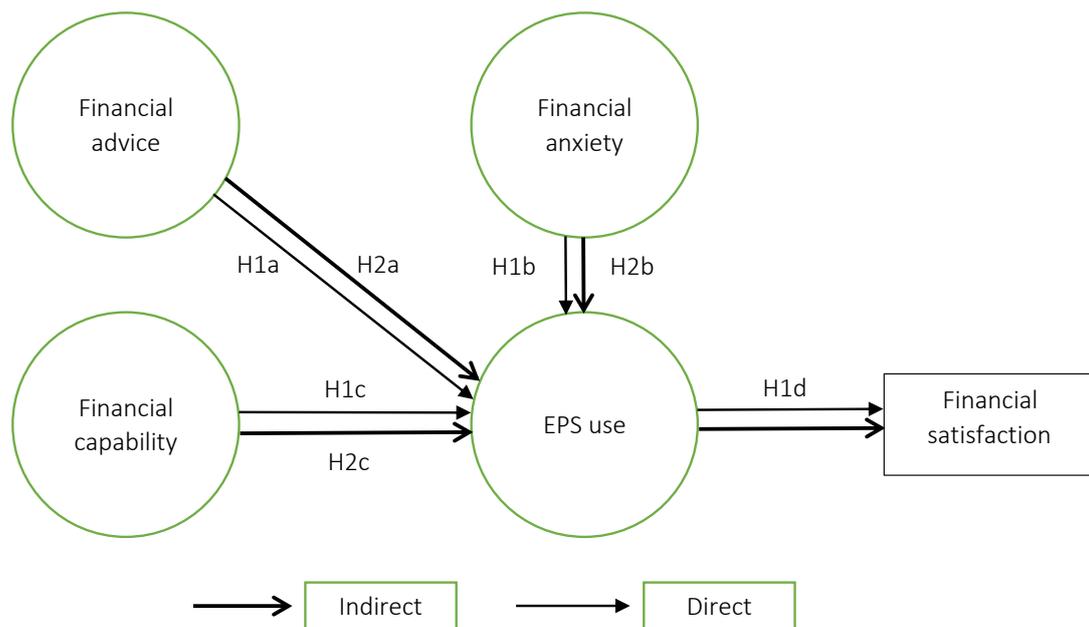


Figure 1. Proposed framework

## 2.1. Direct effects

*H1a: Financial advice has a positive effect on EPS use.*

*H1b: Financial anxiety has a positive effect on EPS use.*

*H1c: Financial capability has a positive effect on EPS use.*

*H1d: EPS use has a positive effect on financial satisfaction.*

## 2.2. Indirect effects

*H2a: EPS use plays a mediating role between financial advice and financial satisfaction.*

*H2b: EPS use plays a mediating role between financial anxiety and financial satisfaction.*

*H2c: EPS use plays a mediating role between financial capability and financial satisfaction.*

## 3. METHOD AND DATA

The study targeted recent graduates who are now part of the workforce in northern India and collected data during January and February 2020. The sampling technique used is stratified to ensure the data was collected from different regions of northern India for wider coverage. Since the target population was recent graduates, a database of university alumni was referred to in order to reach target respondents, which was a feasible approach. The respondents were contacted through electronic mails and asked to fill the questionnaire using a shared link of the Google form. All the respondents fall within the bracket of 20-30 years of age having a bank account and using a smartphone or a laptop. Being a part of income generating segment, they are now involved in financial planning, saving and setting financial goals to be achieved in future.

The study targets young population because more than a quarter of India's total population belongs to this segment (World Economic Forum, 2019), therefore, the outcomes of the study can be gen-

eralized. The profile of the respondents reveals almost the same ratio between males and females, 50.2% and 49.8%, respectively. 70.7% of respondents hold postgraduate degrees and 29.3% hold bachelor's degrees in various fields. Most respondent were employed in the private sector establishments, typically in tertiary sector. Almost all the respondents were based in the mini-metro cities due to their work. There is confidence in the chosen sample as it can represent the working youth segment fairly to justify the targeted population, and the inference from the study will be useful for policymakers and researchers.

To collect data for this study, four adjoining states were chosen, and from each state, one private institute that has the courses in the following streams: Business management, Computer science, Engineering, Pharma and Information technology. Respondents were contacted through a list of recent alumni. The study aimed to collect 300 samples, but due to delay in responses and partially filled questionnaires, the totally completed samples were only 205, which reflects the 68.33 percent response rate. The study was conducted in accordance with the suggestion given by Hair, Hult, Ringle, and Sarstedt (2014); since there are five constructs, the study runs the analysis on  $N = 205$ , fulfilling the basic rule, defined as a "10 times rule method", satisfying the generally acceptable rule of thumb for the sample size.

**Table 1.** Sample profile

Category	Sub-category	Number	Percent
Gender	Female	102	49.8
	Male	103	50.2
Education	Graduate	60	29.27
	Postgraduate	145	70.73
Stream	Business management	53	25.85
	Information technology	50	24.39
	Pharma	30	14.63
	Computer science	34	16.59
	Engineering	38	18.54
Region	Uttar Pradesh	75	36.59
	Delhi	62	30.24
	Rajasthan	41	20.00
	Uttarakhand	27	13.17
Total valid		205	100

Note: All regions belong to northern India.

Based on the discussed literature and arguments, this study has formulated seven hypotheses to test through the conventional data collection technique, i.e. individual survey via questionnaire. The study opted to use self-appraised statements on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree) (see Table 2). A questionnaire was designed that consisted of measurement items adopted from the previous studies. To check the questionnaire reliability and validity, a pilot test was conducted with 40 questionnaires, and after determining the satisfactory Cronbach alpha, validity and reliability, the study continued the data collection process, which ended with 205 net samples. After the exclusion of the sample used for the pilot test, as well as questionnaires with missing values, these questionnaires fulfilled the minimum sample size requirement (Bagozzi & Yi, 2012).

The questionnaire had five sections, and the respondents were not aware of the item classifica-

tion and headings to which they belong. A short personal profile section was also added to the questionnaire. The designed questionnaire used questions from the national financial capability study (NFCS, 2012) for financial advice and financial capability. To measure the EPS use, items were adopted (C. Kim, Tao, Shin, & K.-S. Kim, 2010). Financial satisfaction, which is a dependent variable, was measured using the scale developed by Chuan, Kai, Kok, Seong, and Chen (2012).

Partial least squares structural equation modeling (PLS-SEM) technique of analysis was used to test the sketched hypothesis in the theoretical model (Hair, Hult, Ringle, & Sarstedt, 2017). The present framework is examined through a multivariate PLS-SEM technique, which is appropriate for exploratory research testing of novel relationships and new hypothesis (Henseler, Ringle, & Sinkovics, 2009). PLS-SEM was employed because the constructs were not

**Table 2.** Measurement model

Code	Items	Loadings	VIF	Sources
DE1	I perceive an Electronic payment system is secure	0.819	2.521	C. Kim, Tao, Shin, and K.-S. Kim (2010)
DE2	I trust parties involved in online transactions, such as buyer, seller, etc.	0.727	2.083	
DE3	I trust the security mechanisms of an Electronic payment system	0.778	2.341	
DE4	I have started using online transaction and payment	0.84	3.103	
DE5	I have started using online transactions long time ago	0.815	2.848	
DE6	I use an electronic payment system more often than others	0.816	2.965	
DE7	I am currently using an electronic payment system and will continue to use it	0.895	4.461	
FX1	I feel anxious about my financial situation	0.891	1.375	Archuleta, Dale, and Spann (2013)
FX2	I have difficulty in concentrating on my school/or work because of my financial situation	0.758	2.364	
FX3	I have difficulty in controlling worrying about my financial situation	0.825	2.612	
FD1	I think financial advice is helpful	0.802	1.923	NFCS (2012)
FD2	I consider others' opinions in decision making (buying, investing, savings, borrowings, etc)	0.723	1.711	
FD3	Consultation is important in dealing with financial issues	0.849	2.4	
FD4	I seek professional financial advice/advisor	0.742	1.846	
FD5	I think financial advice will help me to achieve financial expectations in better way	0.837	2.499	
FD6	I would trust financial professionals and accept what they recommend	0.75	1.917	
FS1	Your current saved money?	0.812	2.232	Chuan, Kai, Kok, Seong, and Chen (2012)
FS2	Your current preparedness to meet emergencies?	0.805	2.091	
FS3	Your current financial situation?	0.845	2.787	
FS4	Your financial convenience and financial health?	0.856	2.938	
FS5	Your current financial management skills?	0.791	1.889	
FS6	In the last months, I have been able to save money as much as I wished	0.644	1.577	
FC1	I can arrange at least 150,000 INR in an unexpected need arising within the next month	0.649	1.992	NFCS (2012)
FC2	I have enough funds to survive for three months without regular earnings	0.515	1.791	
FC3	I often use electronic payment mode for paying bills through (credit card, debit card, etc.)	0.897	1.813	
FC4	I am good at dealing with day-to-day financial matters, such as checking accounts	0.806	1.673	

Note: Item loading; VIF – variance inflation factor; a, sources.

normally distributed and this study requires latent variable scores for follow-up analyses (Hair, Risher, Sarstedt, & Ringle, 2019).

All the latent variables in the current context are the outcomes of reflective indicators. A two-step procedure was applied in which the direct and indirect impact of financial capability, financial anxiety, financial advice and EPS use on financial satisfaction is tested. Thereafter, EPS usage as a mediator between financial capability, financial advice, financial anxiety and financial satisfaction was tested. PLS-SEM technique was performed through Smart PLS 3.2.9 (Ringle, Wende, & Becker, 2015). To identify the significance of the framed associations, the uniform paths were examined using the bootstrap procedure with 5,000 iterations of re-sampling. No serious concerns about common method bias were spotted, and in this regard, much care was taken from the commencement of the analysis. Thus, a common method bias is not a serious concern in this analysis (Osakwe, Boateng, Popa, Chovanová, & Soto-Acosta, 2016). Moreover, Bagozzi and Yi (P. M. Podsakoff, MacKenzie, Lee, & N. P. Podsakoff, 2003) very judiciously phrased the constructs, and

all the respondents were assured their responses will be analyzed in strict confidence.

To investigate the significance of the carefully chosen relationships between the variables, the reliability and validity of the models must be scrutinized. The first step in the analysis of convergent validity is the factor loading. At stage one, measurement model was examined using PLS-SEM based on the three main criteria: convergent validity, reliability and discriminant validity (Hair, Sarstedt, Hopkins, & Kuppelwieser, 2014; Henseler, Ringle, & Sinkovics, 2009). To check the convergent validity, the items' outer loadings and average variance extracted (AVE) were measured. The outer loadings, therefore, provided support for convergent validity as indicated by eminent scholars (Hair, Hult, Ringle, & Sarstedt, 2014). To be valid for the predominant items in the model, the factor loading should be greater than 0.7 (Hair, Hult, Ringle, & Sarstedt, 2014). All the loadings are above 0.7 except for items FC1 and FC2. According to Hair, Hult, Ringle, and Sarstedt (2014), indicators with weaker outer loadings are sometimes retained based on their contribution to content validity. Indicators with very low outer

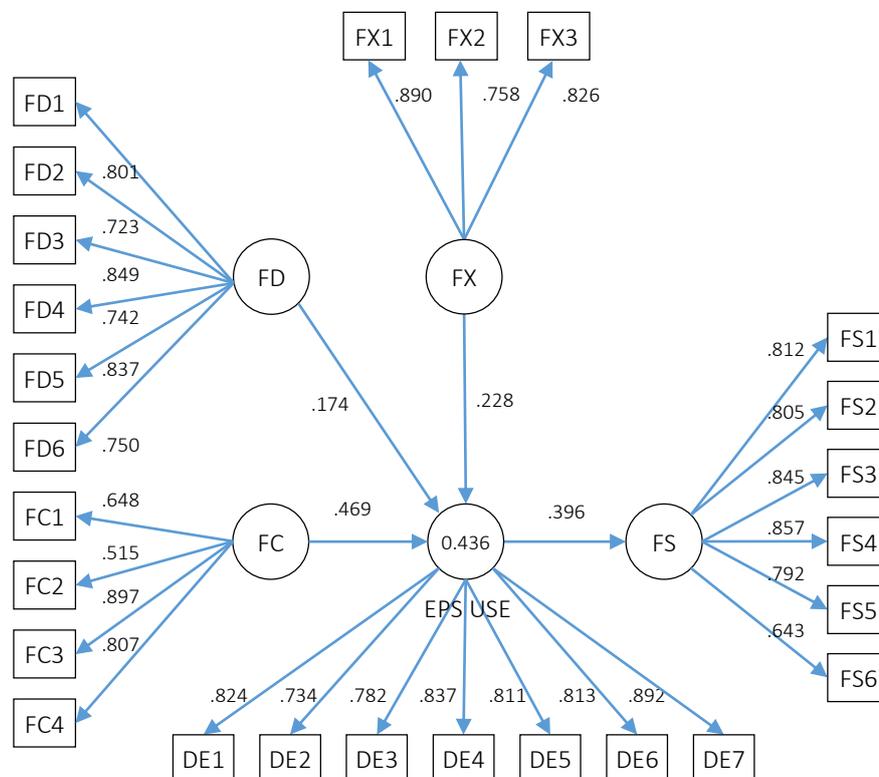


Figure 2. SEM analysis

loadings 0.40 should be removed. Therefore, FC1 with 0.649 and FC2 with 0.515 are included, and all other items have loadings above 0.7 threshold. AVE, as a measure of convergent validity, must be above 0.5 (Hair, Hult, Ringle, & Sarstedt, 2014). This study has found that all the AVE values are between 0.535 to 0.683, comfortably above the minimum threshold level of 0.50; hence, convergent validity of all the constructs are satisfied. Composite reliability (CR) considers the variability of item loadings, which must be greater than 0.7, and it is interpreted as a traditional indicator of Cronbach's alpha. Moreover, the composite reliability (CR) of the items in this study is between 0.866 to 0.932, above the threshold, i.e. 0.7 thresholds (Hair, Ringle, & Sarstedt, 2011) (see Table 3). Thus, the reliability figures reflect the acceptable and satisfactory numbers in the study (see Table 3).

VIF values were below the conservative threshold of signaling collinearity (see Table 2). According to the analysis, all item loadings, CA, CR and AVE values were significant ( $p < 0.001$ ). Finally, the Heterotrait-Monotrait (HTMT) criterion is used to check for discriminant validity (Henseler, Ringle, & Sarstedt, 2014). All HTMT values were below the conventional value of 0.85 (see Table 3), indicating that all constructs were dissimilar from each other. Thus, the discriminant validity is established for this research.

The discriminant validity (Fornell and Lacker criteria) is also proven, as the AVE of each variable is much larger than its squared correlations with other variables in the model (see Table 4).

Once the measurement model has been confirmed and there has been no violation of PLS-SEM assumptions, proceed to the next step of the analysis dealing with the investigation of the structural model (see Table 5). The model explains 43.6% of variations in EPS use and 15.7% in financial satisfaction. No critical issues were observed with multicollinearity, since the VIF values of the latent variables were found much below the conservative threshold of 3 (Risher, Sarstedt, & Ringle, 2019) except DE4, which is 3.103 and DE7, which is 4.461, but it is still below as per the rule of thumb for evaluating the structural model (Hult, Ringle, & Sarstedt, 2014).

## 4. RESULTS

Based on the theoretical framework, the direct effect of financial capability, financial advice, financial anxiety and EPS use on financial satisfaction was tested. It was found that the use of EPS positively affects financial satisfaction ( $\beta = 0.396$ ,  $p < 0.001$ ), financial capability positively affects EPS use ( $\beta = 0.469$ ,  $p < 0.01$ ), financial advice positively affects EPS use ( $\beta = 0.174$ ,  $p < 0.05$ ), and financial

**Table 3.** Construct reliability and validity

Variables	Cronbach's alpha	Rho_A	Composite reliability	Average variance extracted (AVE)
EPS USE	0.915	0.921	0.932	0.663
FC	0.738	0.882	0.816	0.535
FD	0.875	0.888	0.906	0.617
FS	0.882	0.894	0.911	0.633
FX	0.8	0.99	0.866	0.683

Note: CA – Cronbach's alpha; CR – composite reliability; AVE – average variance extracted.

**Table 4.** Discriminant analysis with the Heterotrait-Monotrait (HTMT) ratio and correlation matrices

Variables	EPS USE	FC	FD	FS	FX
EPS USE	0.814	0.6	0.444	0.434	0.406
FC	0.582	0.732	0.334	0.463	0.329
FD	0.404	0.316	0.785	0.434	0.437
FS	0.393	0.379	0.381	0.795	0.189
FX	0.406	0.246	0.361	0.166	0.826

Note: The HTMT coefficients are in bold, whereas Fornell-Larcker are below. All coefficients are significant ( $p < 0.001$ ).

**Table 5.** Path coefficient

Direct and indirect effects	$\beta$	Sample mean (M)	St. dev	T-stat	$f^2$	P-values	Significant
EPS USE $\rightarrow$ FS	0.396	0.4	0.065	6.05	0.186	0.000	Yes
FC $\rightarrow$ EPS USE	0.469	0.471	0.061	7.645	0.344	0.000	Yes
FD $\rightarrow$ EPS USE	0.174	0.181	0.063	2.757	0.044	0.006	Yes
FX $\rightarrow$ EPS USE	0.228	0.227	0.062	3.699	0.078	0.000	Yes
FC $\rightarrow$ EPS USE $\rightarrow$ FS	0.186	0.188	0.038	4.946		0.000	Yes
FD $\rightarrow$ EPS USE $\rightarrow$ FS	0.069	0.074	0.031	2.225		0.026	Yes
FX $\rightarrow$ EPS USE $\rightarrow$ FS	0.090	0.091	0.03	2.994		0.003	Yes

Note:  $\beta$  – standardized coefficient.  $f^2$  scores denote the size of Cohen's (Cohen, 1988) effect:  $f^2 > .35$ , strong effect;  $f^2 > .15$ , moderate effect;  $f^2 > .02$ , small effect of the construct.  $R^2$  – effect size of the model; VIF – variance inflation factor.

anxiety positively affects EPS use ( $\beta = 0.228, p < 0.01$ ). Given Cohen's (Cohen, 1988) benchmarks, the effects on EPS use were moderate on financial capability ( $f^2 = 0.344$ ) and financial satisfaction ( $f^2 = 0.186$ ) and small on financial advice ( $f^2 = 0.044$ ) and financial anxiety ( $f^2 = 0.078$ ). Thus, enough evidence has been identified to support *H1a, H1b, H1c* and *H1d*.

Hypotheses *H2a, H2b* and *H2c*, which tested the mediating role of EPS use in financial capability, financial advice, financial anxiety and financial satisfaction, respectively, were all found positive (Table 5). The indirect effects of financial capability on financial satisfaction via EPS use ( $\beta = 0.186, p < 0.05$ ) and financial advice on financial satisfaction via EPS use ( $\beta = 0.069, p < 0.05$ ) were also found statistically significant. The impact of financial anxiety on financial satisfaction via EPS use was also positive and significant. Hence, these positive significant results show that the chosen mediator, which is EPS use, is vital and affects financial satisfaction indirectly through financial capability, financial advice and financial anxiety. Hence, hypotheses *H2a, H2b*, and *H2c* were all found significant. Consequently, evidence supported that the relationship between financial advice, financial capability, financial anxiety and financial satisfaction was statistically mediated by EPS use. According to Zhao, Lynch, and Chen (2010), this situation is called complementary mediation, as mediating effect and direct effect both exist and point in the same direction. Taking all together, analysis gives an evidence, which supports the hypothesized mediating relationship, and validates the role of EPS use in individual's financial satisfaction. So, EPS use can be a predictor of financial satisfaction directly and indirectly through financial capability, financial advice and

financial anxiety as all the formulated hypotheses are supported positively.

The estimated adjusted  $R^2$  of 0.427 with  $p < 0.05$  showed that financial capability, financial advice and financial anxiety together explain 43.6% of variance in the EPS use and 15.7% in the financial satisfaction (Table 6).

**Table 6.** Variations of the dependent variable explained by independent variables

Variables	Determination coefficient	R-square adjusted
	R-square	
EPS USE	0.436	0.427
FS	0.157	0.152

## 5. DISCUSSION

This study aimed to answer three framed questions. First, how do financial capability, financial advice and financial anxiety influence EPS use among working youth in the context of a developing country? The study confirms that financial capability, financial advice and financial anxiety are important drivers of EPS use. So far as known, this is the first study measuring a direct impact of financial capability, financial advice, and financial anxiety on EPS use, apprehending the idea from the prior studies on EPS usage and customer satisfaction. The idea was developed based on the existing literature, which indicates that individuals' preferences for a particular payment method depends on their personal characteristics; besides, the features of the mode of payment influence its acceptance and desirability leading to customer satisfaction (Foscht, Maloles, Swoboda, & Chia, 2010). Digital financial inclusion reduces farmers' vulnerability and improves their ability

to cope with risk, even poverty alleviation (Wang & He, 2020). It seems that using digital platforms enhances individuals' capability. The paper also considers that anxiety is associated with behavior (Hayhoe, Cho, Devaney, Worthy, Kim, & Gorham, 2012), and trust plays an important role in adopting mobile payments (Hossain, 2019; Oyelami, Adebisi, & Adekunle, 2020). Therefore, individuals' financial capability, financial anxiety or trust can be enhanced by the right guidance and financial advice and thus affects the EPS use and choice of payment mode leading to financial satisfaction.

It has been already established that the digital inclusion is part of financial inclusion, which improves individual's ability to manage risks and reduce poverty (Wang & He, 2020). Therefore, individual's financial capability, financial advice seeking behavior and financial anxiety positively affect EPS use. Limited studies have examined how financial capability, financial advice, and financial anxiety affect EPS use. A recent study has found that financial capability significantly affects online shopping (Çera, Phan, Androniceanu, & Çera, 2020) and supports the study's outcome that financial capability positively affects EPS use. Sherraden (2013) explains that financial capability empowers people to access financial services through financial inclusion, and the use of these services, which are now delivered electronically, pushes people more towards online or electronic payment. This supports the positive effect of financial advice on EPS use, which individuals get after coming under the ambit of financial inclusion from service providers. Another study indicates that in Zimbabwe, they brought unbanked individuals under financial inclusion through mobile money services, which gave the capability to trade digitally (Mazambani, Rushwaya, & Mutambara, 2018). In support of financial anxiety's positive effect on EPS use, Yen et al. (2012) have found that the level of anxiety among people is less when they interact through online platforms. This study adds to the positive impact of the financial construct on electronic payment use. Hence, the focus on the financial capability improvement can indirectly boost the digital inclusion through more EPS use. EPS use can be cultivated and augmented from individual's financial capability, financial advice, which could lead to an improvement in their financial satisfaction.

The second research question was how EPS use directly influences financial satisfaction among working youth in the context of a developing country. With respect to this research question, the findings of this study confirm that EPS use directly influences financial satisfaction. The outcomes of the study revealed that there is a direct positive relationship between EPS use and financial satisfaction. These results are consistent with prior research related to the use of online payment systems in different forms and in different sectors, such as banking, online shopping, and a positive relationship has been found with consumers' satisfaction (Ghani, Rahi, & Yasin, 2017; Wang, Zha, Bi, & Chen, 2018). With the increasing financial inclusion, most individuals with bank account can access online sources, this reflects possibility of using an electronic platform due to financial inclusion measures. Though this study is novel in this area, previous studies also support it indirectly, that is, e-service quality positively affects customer satisfaction (Rita, Oliveira, & Farisa, 2019). Furthermore, customer satisfaction with online shopping is based on security, quality, pricing, time, etc. (Vasic, Kilibarda, & Kaurin, 2019). This establishes a subtle relationship between EPS use and financial satisfaction. Using EPS for financial transaction improves financial satisfaction, this may be due to several benefits of digitalization, such as cost, time, security, etc. (Mushkudiani, 2019). Moreover, e-payment instruments, such as POS, mobile money and internet banking, are possible with the help of Fintech companies such as Visa international and MasterCard (Mustapha, 2018), and recently, Google pay and others are facilitating consumers in the financial transaction, which ultimately improves financial satisfaction as it not only reduces costs, ensures speed or security, but also supports in financial planning and its execution. Since the findings support previous studies, it is imperative that increased EPS use by enhancing users' knowledge, skills, and behavior can increase financial satisfaction. This study is reinforced by other connected preceding studies that specify that financial inclusion and financial advice are positively allied with financial capability (Johnson & Sherraden, 2007; Sherraden, 2013b) and financial satisfaction (Friedline & West, 2016; Hira & Mugenda, 1998; Xiao & Porto, 2016).

The last question was how the use of EPS mediates the influence of financial capability, financial advice and financial anxiety on financial satisfaction among working youth in a developing country context. To answer it, this study confirms that EPS use acts as a mediator between financial capability, financial advice, financial anxiety and financial satisfaction and is vital for achieving higher financial satisfaction in the context of a developing country like India. This means that EPS use is influenced by the level of individual's financial capability, financial advice seeking behavior and financial anxiety and thus affects satisfaction. So far as known, this is one of the few studies in which such effects are investigated from an individual's financial perspective.

The study examined selected relationships to identify these relational gaps in published re-

search and subsidize the current literature as one of the main aims of using EPS with financial constructs. Interestingly, the influence of EPS use on financial satisfaction was found to be a positively significant mediator of these constructs. The availability of financial advice services may encourage EPS use, therefore, an individual's financial capability, financial advice and financial anxiety positively affect EPS use and enhances financial satisfaction. Moreover, better quality financial advice can lead to higher financial satisfaction of individuals who seek advice, mostly those who lack knowledge and competency (Moreland, 2018; Stolper & Walter, 2017). Therefore, a good advisor can play a significant role in improving financial satisfaction. These findings are especially important in the context of developing countries.

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## CONCLUSION

The results of this study provide useful insights for the future. Considering Sen's (Sen, 1993) capability theory, this investigation provides additional understanding of exposition individuals' financial satisfaction through selected financial constructs. The analysis shows that financial satisfaction can be achieved when an individual enhances his/her level of financial capability and financial advice seeking behavior through increased EPS usage. In this regard, the results complement the prevailing study and add further value by introducing the mediating impact of EPS use on financial satisfaction and thus consider the use of EPS a key predictor of financial satisfaction amongst the individuals in a developing country.

This research makes the following additional contributions. First, the paper explores the mediating role of EPS in financial satisfaction; second, it evaluates the relationship between financial advice, financial anxiety and financial capability and the use of EPS; and third, the paper shows how EPS use affects financial satisfaction. Thus, this study proposed an amplifying and more inclusive model to explore the effects of financial constructs on financial satisfaction, with the focus on the role of EPS use. The research findings can be useful for policymakers interested in financial and digital inclusion and literacy, as well as for social practitioners involved in supporting individuals to improve their financial capability and satisfaction.

This study proves the vital role of EPS use. According to the results of this study, people who are more involved in EPS use may be better financially satisfied, so the study insists on enhancing individual's EPS usage, their knowledge and training, especially in developing countries. There also remains a scope for future efforts to explore how EPS use affects the financial literacy of individuals in the developing countries. Albeit, the current research is not flawless from all the outlooks, it also has certain limitations. First, the sample size is not large enough and represents only a minor section of the society, which confines the study from generalizing its results to other sections. Second, self-evaluating statements were used to quantify individuals' perceptions on the chosen variables, which may lead to the social comparison bias. Third, the study is limited only to one developing country, India, so the results cannot be generalized to all the developing nations, as developing countries may differ economically, socially, culturally, and in terms of digital exposure. These identified limitations can be overcome by further research in the related area.

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## APPENDIX A

**Table A1.** Sample questionnaire

Respondent profile: (please tick the appropriate box)						
Gender	Male ( )	Female ( )				
Education	Bachelor ( )	Postgraduate ( )				
Region/State	Uttar Pradesh ( )	Delhi ( )	Uttarakhand ( )	Rajasthan ( )		
Stream	Business Management ( )	Information Technology ( )	Computer Science ( )	Engineering ( )	Pharma ( )	

Please tick the box with the most appropriate answer. Do not tick more than one box for each statement.

**Table A2.** Questions

No.	Questions	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
1	I perceive an Electronic payment system is secure					
2	I trust parties involved in online transactions such as buyer, seller, etc.					
3	I trust the security mechanisms of an Electronic payment system					
4	I have started using online transaction and payment					
5	I have started using online transactions long time ago					
6	I use an electronic payment system more often than others					
7	I am currently using an electronic payment system and will continue to use it					
8	I feel anxious about my financial situation					
9	I have difficulty in concentrating on my school/or work because of my financial situation					
10	I have difficulty in controlling worrying about my financial situation					
11	I think financial advice is helpful					
12	I consider others' opinions in decision making (buying, investing, savings, borrowings, etc.)					
13	Consultation is important in dealing with financial issues					
14	I seek professional financial advice/advisor					
15	I think financial advice will help me to achieve financial expectations in better way					
16	I would trust financial professionals and accept what they recommend					
17	Your current saved money?					
18	Your current preparedness to meet emergencies?					
19	Your current financial situation?					
20	Your financial convenience and financial health?					
21	Your current financial management skills?					
22	In the last months, I have been able to save money as much as I wished					
23	I can arrange at least 150,000 INR in an unexpected need arising within the next month					
24	I have enough funds to survive for three months without regular earnings					
25	I often use electronic payment mode for paying bills (credit card, debit card, etc.)					
26	I am good at dealing with day-to-day financial matters, such as checking accounts					