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# Contents

# A Study on Relationship Between Antecedents and Consequences of Customer Satisfaction for Online Hotel Booking Apps

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## Abstract

*Due to the emerging online competitive business opportunities in hospitality sector, it has become imperative to identify the factors leading to customers' satisfaction. Therefore, this study aimed to identify the antecedents as well as consequences of customer satisfaction of a leading online hotel booking platform and the relationship between them. This was done with the help of e-CSI model. For this purpose, a total number of 269 responses were recorded and the model was tested using SEM technique. The findings revealed that perceived trust, e-SQ and perceived value as antecedents having significant positive impact on customer satisfaction. In an addition, the perceived trust, an antecedent of customer satisfaction also positively impacted the customer loyalty (a consequence of customer satisfaction). The study provides helpful insights for the online hotel booking apps. Accordingly, online companies providing online hotel booking services can help create customer satisfaction by improving their app design and responsiveness.*

**Keywords:** Customer Satisfaction, Online Hotel Booking, E-Hospitality, E-Tourism, E- Services, E-Service Quality (E-SQ), Perceived Trust, Perceived Value, Customer Loyalty.

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# 1. INTRODUCTION

The E-commerce platform has revolutionized the traditional business models throughout the world. The hospitality industry in India has not been untouched from this revolution and has been flourishing consistently since its inception. There has been considerable increase in the number of online travel agencies in India. These online hotel booking apps provide significant help to the customers in the form of information, hassle free bookings and quick payment mechanisms. The provision of all the services online, beginning right from information search to making the final payments has entirely changed the experience for the customers. As a result, assessing factors leading to e-customer satisfaction has been of interest for various researchers. Hence, various studies have been conducted to understand the factors that lead to success of e-commerce apps towards gaining customer's satisfaction and revisit behavior. A study conducted by Rao et al. (2021) showed that e-vendors who ensured the quality of their product, offered complete knowledge about the product/ service were more preferred by the customers and it helped to increase customer satisfaction and confidence in the e-store. Studies have also been conducted to understand the impact of e-WOM on online purchase behaviour (Ardyan, Kurniawan, Istiatin & Luhgiatno, 2021). Similarly, Kuang et al. (2011) through their study found that provisioning of high quality of e-service leads to higher customer satisfaction and helps the OTA's to improve their chances of revisiting the app or app. Therefore, this study focusses on assessment of the impact of factors namely, e-service quality factors, perceived trust and perceived value upon customer satisfaction of the online hotel booking app Oyo. It stands for "On your Own Rooms"became India's largest hospitality company with its operations spread across 230 cities offering 8500 hotels and had become the market player in a short span of time. Not only this but it also revolutionized the hospitality sector in India by pioneering technology driven approach in hotel booking. Oyo is based upon E-commerce platform and it thrives on its technology to deliver better and more efficient operations, management, service and CRM. Also, this study seeks to understand the impact of customer satisfaction on loyalty of the customers to book again using the app. This has been done by way of proposing an e-CSI model.

In the next section, this paper will discuss the review of literature based upon which the research questions and research objectives have been identified which has been followed by the hypothesis under the study. Based upon which, a model has been proposed. Further, next section will include the research methodology followed by the discussion about the results of the study. The final section of this paper will consist of the conclusion based upon the analysis and results.

# 2. LITERATURE REVIEW

According to Devaraj et al. (2002) Customer Satisfaction is determined when the customers feel positive emotions post experience, with the services provided. In order to create positive feelings towards the service, the companies must provide the customers with the quality that excels the expectations of the customers. Therefore, assessment of customer satisfaction cannot be made without the assessment of quality (Sánchez-Rebull, Rudchenko & Martín, 2017). One important thing to be noted here is that, the e-CSI model distinguishes between quality and value (Anderson, Fornell & Lehmann, 1994; Hsu, 2008). This distinction between these two parameters provides valuable information about the degree to which satisfaction is obtained compared to price versus quality driven (Anderson, Fornell & Lehmann, 1994). However, it has also been argued that the traditional service quality concept cannot be applied to e-Commerce platforms directly (Dargah & Golrokhsari, 2012), since it consists of some unique characteristics of impersonal communication and app information system (Kandampully, 2008). Hence e-service quality concept has been utilized by studies to overcome the limitations of traditional SQ (Hanafi, 2017; Hsu, 2008; Kuang & Yang, 2011). E-SERVQUAL model given by Zeithaml et al. (2002) is one of the most commonly used scale in numerous studies. He suggested four dimensions: efficiency, reliability, fulfillment and privacy. Ho & Lee (2007) successfully constructed a scale in measure E-Travel Service Quality Scale to test the relationship between service quality, satisfaction and behavioral loyalty. The dimensions measured

were; Information Quality, Security, App Functionality, Customer relationships and Responsiveness. Yang & Fang (2004) emphasized that web-based technologies can be used to automate product distribution and customer services, including transaction and payment systems, call centers, customer relationship management systems, as well as the underlying analytics, reporting, and operations of these systems and hence, named it as Information systems quality dimension. Also, the results of numerous studies have shown that consumers' perceived trust in travel app is a significant factor which impacts not only the intentions (Bonsón Ponte, Carvajal-Trujillo & Escobar-Rodríguez, 2015) but also long term association by way of creation of customer loyalty (Hsu, 2008; Kim et al. 2011). e-SQ along with perceived trust has been seen to have a significant impact on customer satisfaction (Hsu, 2008; Kim et al. 2011). Kim et al. (2011) also reported in their study that navigational functionality which is nothing but technical expertise of web designer in imparting app all the useful features in order to improve the efficiency and quality of app, had a significant impact on perceived trust in the in the context of online travel apps. Thus, app design, responsiveness and reliability were identified as important e-SQ factors to be considered for undertaking the study.

The American Customer Satisfaction Index (ACSI) was introduced in 1994 by Fornell et al. The model comprises of six constructs namely: consumer expectations, perceived quality, perceived value, consumer satisfaction, consumer complaints and consumer loyalty. However, numerous studies have revealed that customer expectations do not significantly affect the customer satisfaction (Deng, Yeh & Sung, 2013; Kim et al., 2011; Hsu, 2008). Hence, Hsu (2008) in e-CSI suggested the substitution of trust for customer expectations in online setting. Previous studies have suggested that perceived trust impacts the traffic generated by an OTA app. Also, studies have been conducted time and again suggesting that consumers' perception about how an e-commerce app ensures their privacy and security impacts their level of dealing with that particular app. Kim, Chung & Lee (2011) reported through their study that navigational functionality and perceived security were significant factors

impacting trust. Interestingly, the study also showed that satisfaction acted as a mediator of trust and trust had a significant impact on loyalty. Bonsón Ponte, Carvajal-Trujillo & Escobar-Rodríguez (2015) through their study revealed that information quality and perceived security were main antecedents of perceived trust in the context of travel apps. Hence, it could be said that consumers in the online environment do not make purchases unless they are ensured about the security of their actions and privacy of their personal information. In other words, unless they trust aapp they are reluctant to provide their personal information or transactional information required for making the payments. Hence, the factors leading to perceived trust are utilized by the tourism app operators for designing their apps in such a way that enhances the customers' perception about the apps being reliable (Bonsón Ponte, Carvajal-Trujillo & Escobar-Rodríguez, 2015; Kim, Chung & Lee, 2011; Hsu, 2008). Akhila & Manikandan (2018) observed that Indians considered security as one of the key factors while booking hotels online. The more the consumer feels secure about using the e-hospitality platform, the more likely he is to trust it and make purchases again and again. Dutta, Kumar Chauhan & Chauhan (2017) measured the impact of electronic service quality factors on Trust and further trust's impact on Perceived Value. As per their findings, trust and perceived value were significantly associated. This means that, customers' perception about trust with aapp has an impact upon their willingness to buy or buy from that app. Bonsón Ponte, Carvajal-Trujillo & Escobar-Rodríguez (2015) also analyzed and reported in their study the significant impact of perceived trust on perceived value of online travel purchases. Therefore, Companies in the online environment continuously try to improve their processes so as to create a sense of security and trust amongst the customers. Trust also impacts customers' satisfaction and loyalty because in the initial phase, trust helps in attracting customers and in later phase, it helps in their retention (Dutta, Kumar Chauhan & Chauhan, 2017; Hsu, 2008). Thus, lack of perceived trust in a travel app may ultimately lead to not turning up of customers to the app at all.

Perceived value can essentially be seen as a trade-off between what the customers receive in return for the monetary and non- monetary costs which they have to incur (Zeithaml, 1988). The non- monetary cost may include the effort the customer has to put in order to obtain the product or service. E-commerce entities can generate right value for their product amongst the customers by understanding the cut-off criteria which they use to make decision about a product. Hanafi (2017) in his study identified worth of product, need fulfillment, customer effort and branded features as significant antecedents of perceived value. The perceived value was also found to have a significant impact on the customer satisfaction and customer loyalty. Abdullaha, Jayaramanb & Kamala (2016) through their conceptual model based upon the literature proposed that perceived value was having a significant impact on customers' revisit intention towards the hotel booking apps. Previous studies have focused on both the monetary and non-monetary aspects of perceived value. Numerous studies have found that perceived value has a significant positive effect on customer satisfaction (Deng, Yeh & Sung, 2013; Dutta, Kumar Chauhan & Chauhan, 2017; Kuang & Yang, 2011; Lee, Wang, Lu, Hsieh, Chien, Tsai & Dong, 2016; Wu & Ding, 2007).

Customer loyalty is characterized by repeat purchase behavior, repeat visiting intentions towards the app and willingness to recommend to others. There is a close relationship between customer satisfaction and loyalty (Suwunniponth, 2013). Lee, Wang, Lu, Hsieh, Chien, Tsai & Dong (2016) revealed through their Taiwan Customer Satisfaction Index (TCSI) that customer satisfaction had a strong influence on customer loyalty of the tourists on the Taiwan's' tourism industry. Deng, Yeh & Sung (2013) also reported through their H-CSI about the significant positive influence of level of satisfaction and the revisiting intentions of the customers. Numerous literatures provide evidence of a positive relationship between customer satisfaction and loyalty irrespective of the context whether the tourism companies are operating through a traditional or e-commerce channel. Suwunniponth (2013) reported that the customers who were satisfied were willing to recommend others to use online mode of tourism agencies.  Loyalty is regarded as a key consequence of Customer satisfaction (Anderson, Fornell &

Lehmann, 1994; Hsu, 2008; Dutta, Kumar Chauhan & Chauhan, 2017). Loyal customers visit aapp more often than new customers (Hsu, 2008). Also, satisfied customers are expected to share their favorable experiences with others, leading to positive WOM (Hsu, 2008).

A complaint can be thought of a dissatisfaction arising out of the negative feelings post consumption of a product. Wu & Ding (2007) were of the opinion that dissatisfaction led to three types of responses on the part of the customers, namely, voice responses (voicing out the complaints to the seller), private response (complain to friends) and switching to competitors. Hsu (2008) viewed complaint as a conflict between the customer and the organization. Anderson, Fornell & Lehmann (1994) was of the opinion, as the level of customer satisfaction increase the level of complaints decrease and vice versa. Also, the firms' effective complaint handling ability may lead to the creation of loyalists out of complainants which can be represented by a positive relationship between them (Anderson, Fornell & Lehmann, 1994).

Thus, the research questions for this study that have been identified were:

Q1. What is the relationship between e-SQ, perceived trust and perceived value of online hotel booking apps?

Q2. Whether e-SQ, perceived trust and perceived value have an impact on customer satisfaction of online hotel booking apps?

Q3. Whether there is any relationship among customer satisfaction, customer loyalty and customer complaints?

Research Objectives:

1. To identify the relationship between perceived trust, e-SQ and perceived value of online hotel booking apps.

2. To identify the impact of perceived trust, e-SQ and perceived value towards customer satisfaction for online hotel booking apps.

3. To identify the relationship between customer satisfaction, customer loyalty and customer complaints for online hotel booking apps.

Hypothesis:

The following hypothesis have been formulated on the basis of the literature review and research objectives:

**H1**: The e-SQ is positively associated with the perceived trust for Online booking app.

**H2**: The e-SQ is positively associated with the perceived value for Online booking app.

**H3**: The e-SQ is positively associated with the customer satisfaction derived for Online booking app.

**H4:** The perceived trust is positively associated with the perceived value for Online booking app.

**H5:** The perceived trust is positively associated with the customer satisfaction offered by Online booking app.

**H7**: The perceived value is positively associated with the customer satisfaction offered by Online booking app.

**H6:** The perceived trust is positively associated with the customer loyalty for Online booking app.

**H8**: The customer satisfaction is positively associated with the customer loyalty of the Online booking app.

**H9**: The customer satisfaction is negatively associated with the customer complaint.

**H10**: The customer complaint is negatively associated with the customer loyalty.

Proposed Model

With the help of literature review, the following e-CSI model has been proposed for fulfilling the objectives of the study. The customer satisfaction is reflected by Perceived Trust, e-SQ and Perceived value as latent variables. In order to understand the impact of customer satisfaction for online hotel booking apps, customer loyalty and customer complaints have been included in the model. (Fig.1.)

## 3. RESEARCH METHODOLOGY

This study is exploratory in nature as it seeks to explore and identify the impact of the factors affecting customer satisfaction arising from the use of online hotel booking apps and apps. For this purpose, a survey questionnaire method has been implemented to gather information from the sample population.

### 3.1 Data collection and sampling

Online booking app, Oyo was used for the purpose of research. Thus, population for this study included all the inter-city as well as intra city visitors who have at least once booked room using

*Figure 1. Proposed e-CSI Model*
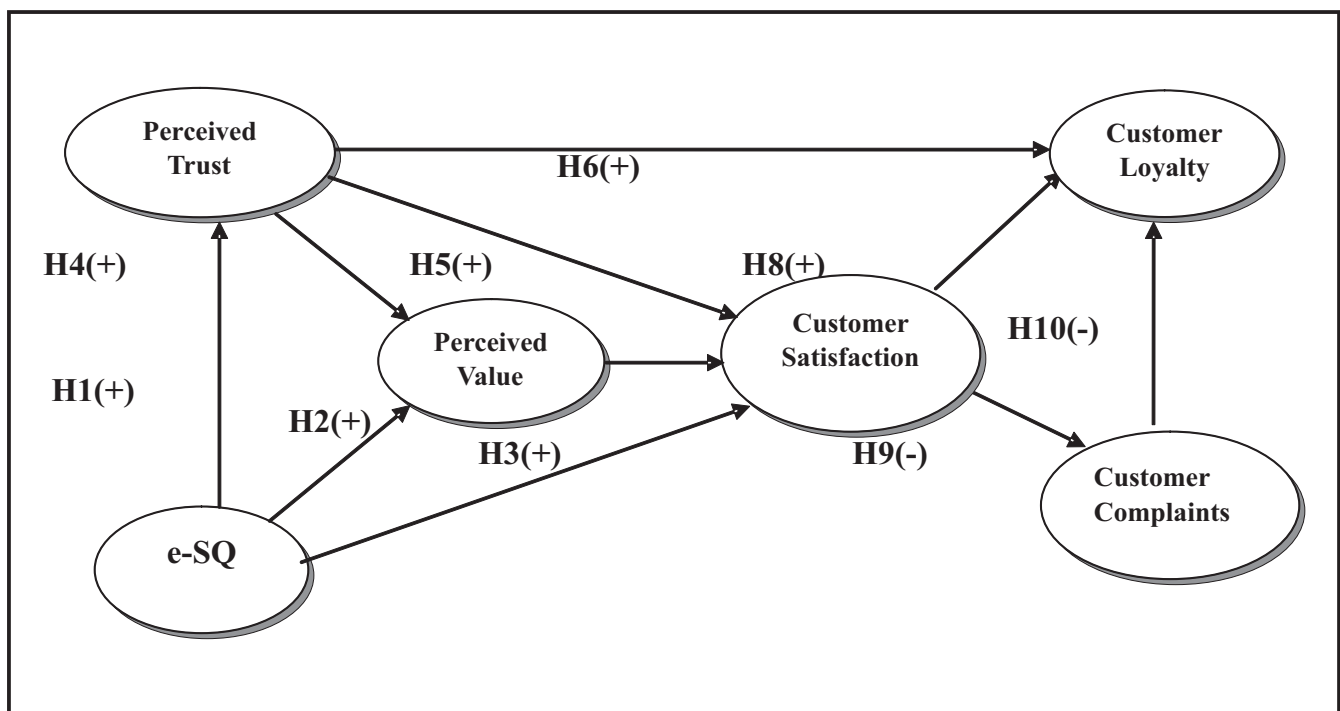
either online app of Oyo or its online booking app. Convenience sampling method of data collection was used. Data was collected through online mode. A structured questionnaire was sent online via. Emails, SMS and WhatsApp to the respondents. The questionnaire was formulated into two sections: the first section included the demographic profile of the respondents and the second section consisted of the main questions under the study. In addition to this, preliminary information was also provided about the purpose of the study in order to ensure that respondents had an idea as to what, why and who shall fill the questionnaire. The questionnaire consisted of a 5-point Likert scale. A total number of 310 responses were obtained out of which 269 were found to be effective after deleting unambiguous and incomplete responses. As per the rule of thumb, while conducting SEM analysis the sample size must have at least 15 responses per measured variable (Stevens, 2002). In this study, the measured variables were 17 indicating the adequate sample size to be at least 255 (17x15) or more. Hence, the sample size 269 was considered to be adequate for the study (Stevens, 2002).

### 3.2 Measurement variables used in the model

After extensive literature review, a survey questionnaire was developed. The majority of the questions were employed using previous tested scales wherever applicable with the adjusted questions. (Dutta, Kumar Chauhan & Chauhan, 2017; Hanafi, 2017; Hsu, 2008; Kim, Chung & Lee, 2011; Wu & Ding, 2007). All the questions consisted of a five-point Likert scale. Since, most commonly used Likert scale is a bipolar scaling method which measures either positive or negative responses to a statement, it consists of the following responses- Strongly disagree, Disagree, Neutral, Agree and Strongly Agree. A Likert scale must take into consideration at least five responses in order to be correct (Allen & Seaman, 2007).

The e-SQ construct was denoted by 3 e-SQ dimensions i.e., *App design, Responsiveness and Reliability*. All these e-SQ dimensions were represented with 3 items each: *App design* included items: (a) Information Availability (b) Attractiveness (c) Userfriendliness. *Responsiveness* included items: (a) Search load time taken by the app (b) Booking time (c) Time regarding cancellation. *Reliability* included items: (a) Similarity of room as shown

online (b) Facilities provided in the room (c) Customer support provided by the app. However, on the basis of factor loadings out of these 9 items only 5 items were applied to the study. Those factors which showed loadings less than 0.5 were discarded from the study. The factors having loading values above 0.50 were used for the study (Table 2). Hence, the final e-SQ construct was represented by denoted by five items namely (a) Information availability (b) User friendliness of the app (c) Similarity of room as depicted online (d) Search load time taken by the app and (e) Booking time using app.

The perceived trust construct consisted of items: (a) Trustworthiness of the app (b) whether the app cares for its customers and (c) Reliability of the app. The perceived value construct included: (a) whether this app offered good value for the price being charged and (b) Whether it was worth to book with this app given the quality. The customer satisfaction included: (a) whether the app met the needs of the customer and (b) the overall satisfaction derived from using this app. Customer loyalty was represented by: (a) how likely customers will recommend this app to others (b) whether this app is first alternative to choose from for meeting online booking requirements (c) how likely customers will encourage others to use this app. The final construct i.e. customer complaints included: (a) complained to the app officially using OYO resolver and (b) complained to friends. Therefore, the study included a total of 17 items. The factor loading of the items upon their respective constructs has been discussed below in Table 2.

### 4. RESULTS

### 4.1 Demographic profile of the respondents

The demographic characteristics of the respondents have been shown in Table 1 below. The data shows that approximately 60 percent of the total respondents who booked using online platform were males. Out of the total responses, 84.8 percent preferred booking using online platform of Oyo. 30.9 percent of the respondents who booked using online platform were self-employed which was also the highest percentage amongst profession followed by 26.4 percent and 21.9 percent for private sector and government

sector employees. Out of the total, most of the respondents belonged to the age group of 26-35 years with the percentage of 34.6. The demographic profile of respondents has been discussed below in Table 1.

*Table 1. Demographic characteristics of respondents reliability and validity of data*

| Demographic Variables (N=269) Gender | Frequency | Valid Percent-age |
|---|---|---|
| Male | 160 | 59.5 |
| Female | 109 | 40.5 |
| **Age** | | |
| 25 or below | 70 | 26.0 |
| 26-35 | 93 | 34.6 |
| 36-45 | 36 | 13.4 |
| 46-55 | 63 | 23.4 |
| 56 and above | 7 | 2.6 |
| **Profession** | | |
| Private Sector | 71 | 26.4 |
| GovernmentSector | 59 | 21.9 |
| Self Employed | 26 | 9.7 |
| Student | 83 | 30.9 |
| Others | 30 | 11.2 |
| **Preference of Online Booking** | | |
| Yes | 228 | 84.8 |
| No | 41 | 15.2 |

For determining the reliability of scales Cronbach's alpha was used. Cronbach's alpha determines the internal consistency or average correlation of items in a survey (Santos, Lippke & Pope, 1998). The value of Cronbach's alpha for each construct was greater than 0.70 (Table 2) and hence acceptable (George & Mallery, 2003; Santos, Lippke & Pope, 1998). The reliability of each construct as well as factor loadings of each

item under all constructs has been discussed in Table 2.

*Table 2. Reliability scales and item-construct loadings*

| Measurement Items | Factor Loadings |
|---|---|
| **Perceived Trust (Cronbach's alpha=0.879)** | |
| It is trustworthy app | 0.853 |
| The app cares about its customers | 0.813 |
| The app is reliable | 0.859 |
| **Perceived Value (Cronbach's alpha=0.717)** | |
| App offers good value for the price | 0.668 |
| It is worth to book hotel using this app | 0.838 |
| **Customer Satisfaction (Cronbach's alpha=0.778)** | |
| This app met the needs of the customer | 0.781 |
| Overall satisfaction derived by the customer | 0.819 |
| **e-SQ (Cronbach's alpha=0.832)** | |
| Information availability on app | 0.631 |
| Search load time taken by the app | 0.759 |
| User friendliness of the app | 0.717 |

| Measurement Items | Factor Loadings |
|---|---|
| Similarity of room as shown on app | 0.694 |
| Time taken for booking room through this app | 0.736 |
| **Loyalty (Cronbach's alpha=0.894)** | |
| How likely to recommend thisapp to others in future? | 0.834 |
| Whether the app is first alternative to choose for online booking? | 0.915 |
| How likely to encourage others to use this app? | 0.803 |
| **Complaints (Cronbach's alpha=0.732)** | |
| Whether complained formally through OYO resolver? | 0.744 |
| Whether complained to friends about the app? | 0.779 |

In order to test the model, *structural equation modeling technique* (SEM) has been applied which makes use of a two-step approach for model testing (James, Mulaik, Brett, 1982). Two-step model testing approach involves analysis of two conceptually distinct models: (a) the measurement model and (b) the structural model. According to James, Mulaik, Brett (1982), the researcher must determine whether the measurement model or the observed variables measures the latent construct accurately or not. Therefore, in order to validate the study, Confirmatory Factor Analysis (CFA) was conducted using AMOS 21. In order to assess the construct validity, Campbell & Fiske (1959), proposed two aspects Convergent validity and Discriminant validity.

Hence, first of all composite reliability (CR) was calculated, which is considered as less biased estimate of reliability than cronbach's alpha (Fornell & Larcker, 1981). The value of CR for each construct was greater than the acceptable value of 0.7 (Table 3). Second, in order to assess the convergent validity of the latent variables, the most common criterion of Fornell & Larcker (1981) was used i.e. Average variance extracted (AVE) which is calculated as average of the squared loadings of the all the items representing a latent construct. The AVE measures the level of variance captured by the construct as compared to the level of measurement error. The value of AVE was greater than 0.5 which is the threshold value (AVE > 0.5) (Hu & Bentler, 1999) (Table 3).

**Table 3. Establishing Discriminant Validity**

| Measure-ment Item | E-Sq | Perce-ived Trust | Perce-ived Value | Customer Satisfa-ction | Comp-laints | Loyalty |
|---|---|---|---|---|---|---|
| *e-SQ* | 0.709[a] | | | | | |
| *Perceived Trust* | 0.180 | **0.842** | | | | |
| *Perceived Value* | 0.245 | 0.619 | **0.758** | | | |
| *Customer Satisfaction* | 0.323 | 0.616 | 0.699 | **0.800** | | |
| *Complaints* | -0.308 | -0.040 | -0.165 | -0.303 | **0.762** | |
| *Loyalty* | 0.240 | 0.676 | 0.571 | 0.323 | -179 | **0.852** |

[a]values in bold diagonals represent the squared roots of average variance extracted.
The measurement model fit summary: CMIN=206.754, df=104, CMIN/DF= 1.988, CFI=0.953, SRMR= 0.043, RMSEA= 0.061, AGFI= 0.881, TLI= 0.939, NFI= 0.911

Finally, in order to assess the discriminant validity, the square roots of AVE was used (Fornell & Larcker, 1981). The discriminant validity measures the level a latent construct differs from other constructs. The square roots of AVE of each construct, represented in diagonal values (bold items in Table 3) were greater than the correlation coefficients between the constructs. This indicated the construct was more strongly correlated with its own items than other constructs (Table 3). Based upon these results, it was concluded that the study exhibited sufficient evidence of convergent and discriminant validity and we could proceed with the structural assessment of the model.

## 4.2 The hypothesized causal structural model assessment

The results of the estimation of hypothesized causal structure model indicated that the model was accurate (TLI= 0.937; NFI= 0.905; and CFI= 0.949; GFI= 0.914). All the values were more than 0.9 which is considered as the threshold value and hence indicated satisfactory fit (Hu & Bentler, 1999). However, the value of AGFI was 0.879 which was a little lesser than the threshold value of 0.9 and hence it was accepted. The goodness of fit indices of the hypothesized model were Chi-square test value= 220.850, (p > 0.05) which is desirable, df= 109, CMIN/df= 2.026, GFI= 0.914, RMSEA= 0.060, SRMR= 0.057 (Table 4).

**Table 4. Goodness of fit measures of the hypothesized model**

| Goodness of fit statistics | Values | Cut off Criteria |
|---|---|---|
| **Absolute Fit Measures** | | |
| Chi-Square test | 220.850 | p > 0.05 |
| Degrees of freedom | 109 | 0 |
| GFI | 0.914 | > 0.90 |
| Chi-square / degrees of freedom | 2.026 | Between 1 and 3 |
| RMSEA | 0.060 | < 0.06 |
| **Incremental Fit Measures** | | |
| AGFI* | 0.879 | > 0.90 |
| TLI | 0.937 | > 0.90 |
| NFI | 0.905 | > 0.90 |
| CFI | 0.949 | > 0.95 |

*AGFI= Adjusted good-of-fit index, TLI= Tucker-Lewis index, NFI= Normed fit index, CFI= Comparative fit index

The structural model was finally assessed with the help of path estimates which are represented by way of standardized regression weights of latent variables in the study. The following figure shows the results of the SEM analysis conducted in AMOS 21.

Table 5 clearly shows the standardized regression weights obtained through the analysis. As per the results, e-SQ, perceived trust and perceived value had a significant positive impact on the customer satisfaction with the regression weights +0.168, +0.281, +0.479 respectively and hence, H3, H5, H7 were accepted. This implied that all three i.e., e-SQ, perceived trust and perceived value were antecedents of customer satisfaction.

Also, e-SQ with value +0.1.39 and perceived trust with a value +0.594 had a significant positive impact on perceived value, clearly indicating that for online booking app, its perceived trust had more impact towards its perceived value. In addition, e-SQ positively impacted perceived trust with standardized regression weight = 0.180. Hence H1, H2 and H4 were also accepted.

As per the path estimates, there was a significant positive relationship between customer satisfaction and customer loyalty with value 0.504, indicating that the level of customer satisfaction derived from booking online using Oyo helped in creation of customers' loyalty towards the app. Therefore, H8 was accepted.

**Table 5. Standardized regression weights**

| | | | Estimate |
|---|---|---|---|
| Trust | <--- | eSQ | .180 |
| PV | <--- | Trust | .594 |
| PV | <--- | eSQ | .139 |
| CS | <--- | PV | .479 |
| CS | <--- | eSQ | .168 |
| CS | <--- | Trust | .281 |
| Complaints | <--- | CS | -.290 |
| Loyalty | <--- | CS | .504 |
| Loyalty | <--- | Trust | .368 |
| Loyalty | <--- | Complaints | -.024 |

Perceived trust also had a significant positive association with customer loyalty with regression weight 0.368 which led to the acceptance of H6. Also, customer satisfaction was found to be negatively associated with customer complaints (-0.29) which was consistent with the hypothesis and hence H9 was accepted. Online booking app's customer complaints were found to be negatively associated with customer loyalty with regression weight -0.024. Hence, H10 was also accepted.

Therefore, the path estimates indicated that all the

*Figure 2. Structural Model*
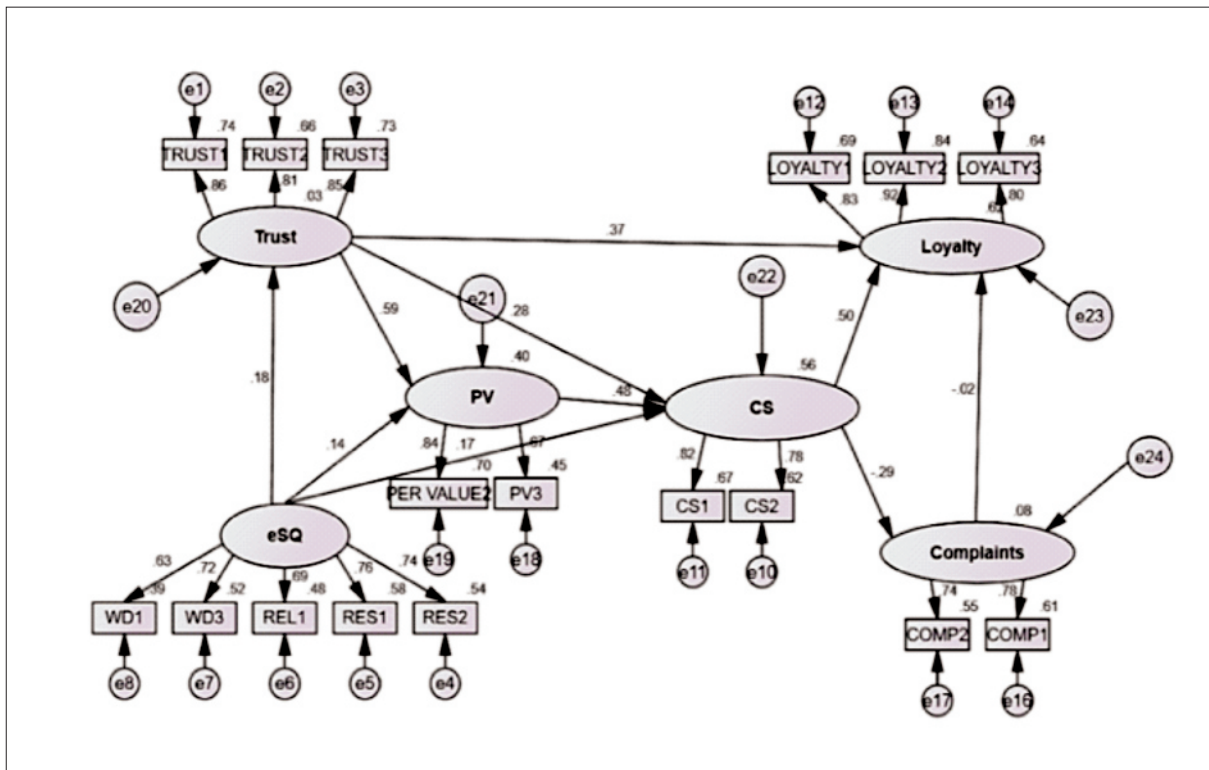
hypothesized statements could be accepted for the online booking app (Figure 2).

In addition to this, the total effects of antecedents i.e, e-SQ, perceived trust and perceived value on overall customer satisfaction was 0.33, 0.56 and 0.479 respectively. This implied that antecedent perceived trust had greatest impact on the customer satisfaction. Also, the values of R squared indicated that factor customer satisfaction displayed 55% of the variance whereas factor customer loyalty displayed 62% of the variance in the entire model.

## 5. CONCLUSION AND DISCUSSION

The aim of this study was to identify the factors influencing the customer satisfaction of hotel booking apps. The study also looked at the positive (loyalty) and negative (complaint) consequences of customer satisfaction. The results indicated that e-SQ, Perceived trust and Perceived value can be considered as important antecedents of customer satisfaction in context of online hotel booking industry which is consistent with previous studies.

The close association between the three is also important for the e-commerce managers. Not only this, but the results also showed that in online platform of hotel booking, perceived trust which acts a factor leading to customer satisfaction can also lead to customer loyalty. Due to intangibility component of the online apps, perception about trust plays a significant role in generating confidence. It helps in creating perceived value. Trust, also plays a significant role in creating loyalty amongst the customers. Thus, ensuring long-term relationship between the company and the customer. Hence, managers of online hotel booking apps should ensure building of trust towards their app.

The study also showed that e-SQ positively affects the perceived trust amongst the customers. This implies that online tourism companies by way of improving e-service quality shall be able to improve the perceived trust and vice versa. Major e-SQ indicators identified by the respondents were: search load time taken by the app, booking time using app and user friendliness of the app

with factor loadings of 0.759, 0.738 and 0.718 respectively, leading to the satisfaction from the online app. This implies that in online environment where the customers face continuous dilemma of choosing amongst various apps to avail online hotel booking services, the online hotel booking companies by way of improving their app design and responsiveness can create customer satisfaction. This is consistent with previous studies (Hanafi, 2017; Ho & Lee, 2007; Zeithaml, Parasuraman & Malhotra, 2002). This means hotel booking apps must focus on the channel most by which the customers will be made aware about the services. The emphasis should be laid on providing the accurate information in the easiest manner by improving the app quality features.

The study also showed the significance of perceived trust for the online tourism industry. As per the results of the study, in online environment perceived trust towards the app acts as one of the most important pillars of customer satisfaction. The customers found Online booking app to be reliable, trustworthy and caring as well. Hence, the online booking companies must seek to improve perceived trust of customers regarding their products and services. For this, the companies must understand that unless they improve the customers' beliefs about the technology-based transactions; they won't be able to turn the visitors into customers. The positive association between perceived trust and loyalty further helps to understand the association between an antecedent and consequence of customer satisfaction. This implies that high perceived trust in the hotel booking app can lead to the creation of repurchase intention from the app. Therefore, it becomes imperative for online tourism operators to emphasize on trust building for customers.

Also, Trust as well as e-SQ not only directly influenced the customer satisfaction but also indirectly via. perceived value. The results showed that perceived trust and e-SQ were positively associated with perceived value which is nothing but a trade-off between benefits and costs, a procedure opted by the customers, in order to derive satisfaction. This implies that customers felt that the decision to book using Online booking app was wise and for subsequent booking they feel better to book using this app. A possible explanation for this could

be that in an online set up it is easier for the customers to compare prices as well as benefits in terms for e-SQ features which they receive from a particular app. The results were consistent with previous studies.

The study also shed light on the consequential part of the customer satisfaction. The positive association between customer satisfaction and customer loyalty indicated that customers who were satisfied with the online booking app found it to be suitable for using the app as their first choice for online booking, for recommending the app to others and encourage others to use the app. The customers now-a-days tend to exchange feedback rapidly online in the form of customer reviews. The rapidness of the internet requires the companies to always keep a close check on the customer reviews in order to understand which areas should be worked upon if any. The results of the study also indicated that Online booking app receives complaints from its customers which indicate that it needs to improve its efficiency while providing its services. The company should try to be more efficient in order to reduce dissatisfaction amongst the customers.

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# Role of Metacognition and Coping Behaviour in Managing Virtual Teams of the Digital Age: An Exploration of Literature

Shilpa Jain* and Aarushi Singh**

## Abstract

*The recent pandemic of COVID-19 has changed the functioning and response process of individuals and organisations. The policy and mandatory shutdowns of businesses and industry to curb the virus's impact led to various workplace challenges. Enforcement of Mandatory Work from Home (MWFH) on employees led to the transformation of on-site teams to virtual teams. The formation of virtual teams and MWFH exposed employees to various challenges and stressful work situations. In order to deal with uncertain changes in work, professionals need to cope with these alterations. Therefore, this paper aims to highlight the theoretical linkage between the individual awareness (Metacognition) of their responses to a stressful situation in virtual teams and the importance of adopting an appropriate coping style for regulating behaviour. The above-said linkage is then conceptualized into a conceptual framework through a literature review. The paper then proposes theoretical and practical implications for the stakeholders.*

**Keywords:** Pandemic; COVID-19; Virtual Team, Coping Styles, Metacognition, Work From Home (WFH)

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## 1. INTRODUCTION

The recent pandemic of Covid-19 has changed the functioning and response process of individuals and organisations. This global health crisis became a threat to individual health as well as the economic health of countries. The policy and mandatory shutdowns of businesses and industry to curb the virus's impact led to various workplace challenges. Many employees were laid off either temporarily or permanently due to businesses and industry's shutdown, especially in manufacturing, as the work could not be conducted remotely (online). According to Bloomberg News (Pickert, 2020), 3.28 million people applied for unemployment insurance in March-end of 2020 in the U.S. alone. The effect of the pandemic has been huge and has led to widespread and long-term challenges.

Among these challenges, there has been a sudden shift in the working style of the workforce at various organisations (Davison, 2020; Richter, 2020). During the pandemic, companies have had to implement new information technology (I.T.) frameworks. In contrast, others have had to reconsider their business model entirely, shifting to online platforms and goods, as well as expanding into new business networks. The pandemic has weakened or removed the status quo. In order to comply with social distancing criteria, several alternative workspaces were introduced (Leidner, 2020; Nguyen et al., 2020; O'Leary, 2020; Papagiannidis, Harris & Morton, 2020).

The COVID-19 pandemic led to the widespread emergence of remote work (Work from home) in organisations. A survey of 229 HR departments by Gartner (2020) revealed approximately one-half of the companies surveyed had more than 80% of employees working from home in the initial COVID pandemic stages. The survey report further estimates a long term increase in numbers after the pandemic. The concept of WFH is not new to organisations as it has been part of the flexible work policy and has been studied in research previously. However, this sudden shift was not a preferential decision on the part of employees or employers. Instead, this Mandatory Work From Home (MWFH) was forced on employees due to a sudden shutdown in economies. This mandate has developed a few more challenges as it is not the same as remote work, wherein individuals prefer to work from anywhere and choose it based on personal preference. It is witnessed that remote work can improve employees' productivity who perform complex tasks and require less interaction with colleagues (Allen, Cho & Meier, 2014). However, it is not the same with all types of work profiles. The division of work and nonwork domains is observed as a challenge for employees (Ramarajan & Reid, 2013). Lack of differentiation of work and home impacts the work-life balance and well being of the employees.

This mandatory WFH poses questions about whether the benefits highlighted in previous studies of WFH can be generalised in the MWFH setup.

The second challenge related to the concept of WFH is the emergence of virtual teams. Virtual teams have been prevalent with rapid globalisation and technological communication requirements across geographical boundaries and have become progressively common (Saarinen, 2016). By the mid-1990s, many companies started exporting the team concept with technology, and since then, the concept of virtual teams has gained importance in the area of research. The Coronavirus disease has again escalated the importance of the topic of virtual teams. Moving through the emerging reality of coronavirus and converting teams to 100% virtual in a few days has been a massive transition for companies and their employees. Prior studies in this area have highlighted limitations of virtual teams such as less face to face communication, barriers in communication due to less use of non-verbal cues in communication (Martins, Gilson & Maynard, 2004), conflicts and coordination issues (Mortensen & Hinds, 2001), temporal, cultural and geographical barriers.

These challenges of virtual teams and MWFH have led to the emergence of stress among employees and employers. These stressors can degrade the performance of employees and hamper their productivity. However, the literature highlights individual differences in response to stress (Bolger, 1990). Therefore, it is essential to study the individuals cognitive (Metacognitive

awareness) and behavioural characteristics (coping styles). Regulation and communication in this unique setting of remotely connected teams with the absence of social and emotional cues are essential.

Recent literature has also emphasised the role of metacognition in coping behaviour in acute stress conditions. The importance of individual awareness of their responses to stressful situations or regulation (coping) of behaviour under stress has gained importance since the development of cognitive-behavioural therapy (Meichenbaum, 1985). This study, therefore, aims to organise this linkage between emerging stress in virtual teams and the role of coping and metacognitive awareness.

The paper is categorized into the following sections. Section 1 introduces the current situation of the WFH set-up and the relevance of the role metacognition and coping styles on the team performance; Section 2 outline the objective of the study; Section 3 introduces the theoretical background of the variables explored in the review; Section 4 defines the methodology adopted for the review; Section 5 depicts the literature support for the proposed linkage and the visual conceptual model; the last section concludes the reviews and provides implications of the proposed model for various stakeholders.

## 2. OBJECTIVES OF THE STUDY

The study aims to explore the following;
1. Highlight the theoretical linkage between the individual awareness (Metacognition) of their responses to a stressful situation in virtual teams and the importance of adopting an appropriate coping style for regulating behaviour.
2. Conceptualising the above said theoretical linkage into a conceptual framework through a literature review.
3. Providing theoretical and practical implications for the proposed model from the view of the stakeholders.

## 3. LITERATURE REVIEW

### 3.1 Virtual teams

Virtual teams are defined as teams connected by information technology as a collection of individuals, dispersed from each other due to geographical boundaries or organisationally, to accomplish their goals (Zigurs, 2003). The teams formed can vary in their virtual levels based on different dimensions' functioning (Foster & et al., 2015).

With the advancement of technology and connectivity, collaborations within individuals and teams (Mayhew, 2020) have increased across the workplace in the 21st century (Nydegger & Nydegger, 2008). As the virtual team's members are co-located in different locations, various computer-mediated tools coordinate these team's functions. These computer-driven technologies help utilise different skills differentiated by time and space (Hacker, Johnson, Saunders & Thayer, 2019). They are essential for advancing any organisation with world expertise, 24/7 productivity and reduced overhead costs (Dulebohn & Hoch, 2017; Saarinen, 2016). However, prior research has also shown some challenges faced by virtual teams in collaboration, leading to increased work-related stress.

In the time of the pandemic, the topic of virtual teams has gained momentum. Employees were mandated to WFH and interact with team members and supervisors in flexible work arrangements with the absence of non-verbal cues. However, there has been an improvement in technology with the availability of video conferencing tools. Nevertheless, video meets cannot wholly overtake the benefits of face to face interaction among team members. Prior studies (Martins, Gilson & Maynard, 2004; Mortensen & Hinds, 2001) have highlighted the problems and conflicts they face in the virtual team setup. According to Social Information processing (SIP) theory, virtual teams require more interaction than face-to-face teams. SIP theory states that individuals can adopt mediums of communication (eg. text-based) and manage to achieve a similar communication level as in on-site located teams (Walther, 2015). Previous research has also shown that online teams appear to be more successful at brainstorming compared to face-to-face teams (e.g., DeRosa, Smith & Hantula, 2007). On the other hand, individual performance research has shown that regularly engaging teammates tend to lose out on the resourceful and creative

advantages of regular face-to-face interactions (Allen, Golden & Shockley, 2015).

There have been concerns that COVID-19's increased team virtuality can affect helping and pro-social actions as well. The physical distance between colleagues may reduce helping behaviours. Due to less interaction, individuals might find it awkward, embarrassing or uncomfortable in reaching out to colleagues for help (e.g., Bohns & Flynn, 2010). This psychological barrier could develop stress amongst employees and might hamper their productivity and performance. However, evidence from prior research has shown that distancing may reduce helping behaviour in the short term, but the same behaviour will not persist for long. Studies have shown that individuals request help from others boldly and receive better help than is usually presumed (Newark, Bohns & Flynn, 2017). This behaviour has been observed primarily in times of crisis. The fear of being uncomfortable, awkward, or embarrassing when seeking support is normal (e.g., Bohns & Flynn, 2010). The "best practises" in virtual helping can help seekers resolve these psychological barriers by preserving personal privacy (Cleavenger & Munyon, 2015), minimising stigmatisation (Ben-Porath, 2002), and instilling confidence that things will get better.

Another challenge faced due to mandate WFH and the formation of virtual teams are identified as differentiation between work and nonwork boundaries (Ramarajan & Reid, 2013). The vast number of employees are forced to work from home and may face difficulties due to fundamental issues such as a shortage of room in their home to attend to work. For example, employees who live with others (joint families) also face a more extensive set of challenges than those who live alone (or in nuclear families) because they also need to navigate others' space during work hours. Therefore, WFH can be considered appealing to employees only if there is a separation between work and home .i.e. transition between the two domains. Lack of separation between the domains can act as a burden on employees physically and mentally. This absence of differentiation between working and non-working hours can lead to frustration, anxiety, stress, and further leading to employee emotional breakdown. These stressors further hamper the productivity and performance of the employee.

These mixed views related to on-site and virtual teams' working allow developing interventions to improve teamwork in a virtual set-up.

## 3.2 Coping styles

The coping responses and styles of workers are another significant factor during an organisational change process. Coping refers to using thoughts and actions to handle stressful circumstances internal and external to the business (Folkman & Moskowitz, 2004, p. 745). While coping mechanisms have been formulated differently, one of the most widely used is the dichotomous classification of problem-focused and emotional-focused approaches by Bain, McGroarty & Runcie, (2015). Folkman & Lazarus, (1984) classify stress management as problem-solving or emotion-regulating. Another way of coping proposed by Skinner, Edge, Altman & Sherwood, (2003); Solberg Nes & Segerstrom (2006) is the avoidance approach of coping. This is further classified as engaged coping aimed at reducing, eliminating or managing the problem and disengaged coping, the goal of which is to avoid the problem and its emotional consequences.

Problem-focused coping aims at controlling the stressor, .ie. the situation creating stress. Herein, the individual tends to analyse the situation and aims at controlling the problem by implementing a plan to deal with it (Leiter, 1991). Therefore, evidence indicates that adverse effects of stressful situations can be reduced through problem-focused coping on health and performance, especially when the circumstances are controllable (e.g. Beasley, Thompson & Davidson, 2003; Gilbar, Ben-Zur & Lubin, 2010). Emotional focused coping aims at controlling emotional distress resulting from the stressor. This coping style is adopted by individuals when the situation is uncontrollable (Semmer, 2003). Evidence has indicated mixed findings for improvement or decrement of performance in individuals in the case of emotional coping.

In contrast to the above two mentioned coping styles avoidance coping style escapes the coping approach rather than tackling the problem or emotion. Previous research in psychology indicates that emotional and avoidance coping can only offer temporary relief from confronting the

traumatic situation but not solve the issue entirely (Bigatti, Steiner & Miller, 2012). Consequently, control (Problem-focused) coping is often linked to positive employee outcomes, while escape (Emotional and avoidance-focused) coping tends to be linked to negative work-related outcomes (Srivastava & Tang, 2015).

Individuals' coping mechanisms and methods vary based on whether they feel they can improve the situation by their efforts or not (Folkman & Lazarus, 1984; Folkman et al., 1991; Zellars, Liu, Bratton, Brymer & Perrewe, 2004). The availability of organisational resources in the job field tends to shape the expectations of certainty and control of employees concerning a difficult work situation, thereby allowing employees to evaluate the use or choice of specific coping strategies (Holton, Barry & Chaney, 2016). Therefore, the coping approach is an outcome of the availability of coping resources (Holton, Barry & Chaney, 2016). When workers experience positive emotions (such as hope, joy, support etc.) linked to changes at work, scholars propose that they prefer to cope actively (control strategy) in the light of organisational change (Fugate, Kinicki & Prussia, 2008). Such situations are considered a challenge by the employee (Fugate et al., 2008). A sense of belonging, support, and inclusion from the supervisor and organisation also encourages using a control strategy while coping with situations (Lawrence & Callan, 2011). However, in the absence of these positive emotions, employees experience threats from stressful situations (Jordan et al., 2002).

Despite the importance of coping styles, there is scarce literature regarding developing coping styles among employees. Prior research focused on academic coping strategies and styles adopted by children to regulate emotions and behaviours (Skinner & Zimmer-Gembeck, 2007). Some literature has contributed to investigative coping style development in acute stress situations among military and police professionals (Ippolito, Adler, Thomas, Brett & Hölzl, 2005; Luria & Torjman, 2009).

Therefore, it is crucial to investigate the role of coping styles in the workplace, especially among newly formed virtual teams at times of uncertainty.

### 3.3 Metacognition

Metacognition is the understanding of one's cognitive processes and the capacity to consciously monitor and regulate these processes (Schraw, 1998; Favell, 1979). The term metacognition is used today to refer to all aspects of a person's thought processes and knowledge schema (Leader, 2008), implying the inclusion of both cognitive and psychological phenomena in metacognition. Today, the term metacognition refers to all aspects of an individual's thinking processes and his information schema (Leader, 2008). Social psychologists assert that metacognitive processes are all-pervasive in personal and interpersonal life, although they haven't been recognised (Jost, Kruglanski & Nelson, 1998). Martinez (2006) believes that metacognition entails regulating the affective states of individuals. Furthermore, help people persist and remain motivated in problem-solving situations.

Metacognitive ability is traditionally defined to have two components, i.e., Metacognitive Knowledge (Awareness) and Metacognitive Regulation (Skill). The presence of metacognitive ability in individuals enables them to engage in self-monitoring and regulation of their cognitive processes. Metacognitive awareness or knowledge of an individual accounts for their individual beliefs (Flavell, 1979) and thoughts to judge individuals or tasks performed (Eklides, 2008).

However, individuals might face biases of inaccurate estimation of their knowledge and may underestimate or overestimate their competencies (Veenman, Van Hout-Wolters & Affler bach, 2006). The ability to be metacognitively conscious of one's success without underestimating or overestimating one ability is thought to be a reasonably stable personality trait. That can be quantified and strengthened through preparation and development (Knox, Lugo, Jsok Helkala & Sütterlin, 2017).

Literature has linked metacognition to intellectual skills (Veenman, Kok & Blote, 2005), problem-solving (Gardner, 1991; Karmiloff & Smith, 1992; Lee & Teo, 2011); self-efficacy (Ghonsooly,

Khajavy & Mahjoobi, 2014; Pellas, 2014); confidence (Kleitman & Stankov, 2007) and motivation (Sungur & Senler, 2009). Studies have also emphasised the role of metacognition in decision making Greene (2003) and evaluation of alternatives to achieve a task.

Metacognition has been considered a motivator for the effective performance of teams. A study by Dierdorff & Ellington (2012) showed the role played by metacognition across teams. The results indicated effective and quality decision making among teams with greater metacognitive ability. These members also showed better cooperation. Similar results were observed in teams of nursing students attending online classes.

Studies have indicated that metacogni-tively constrained individuals engage less in alternative strategies and are less adaptable in uncertain situations (Batha & Carroll, 2007). Studies have linked metacognitive capacity to workplace self-managed learning. It has been related to many workplace activities, such as creativity (Kim & Lee, 2018), teamwork (Brinol & Marree, 2012) and transfer of learning (Davis & Arend, 2013). Horowitz et. al (2019) found the members of better performing foreign policy teams employed metacognition and therefore have better awareness regarding their team. Employees' metacognitive knowledge and abilities are therefore becoming an increasingly important asset at work (Braun, 2004).

## 4. RESEARCH METHODOLOGY

This narrative review aims to conceptualise the current state of research by addressing the linkage between metacognitive awareness, coping styles on team performance in a virtual team setup based on the methodology adopted by Neumann (2017). The review first focuses on the sudden change in the working of teams due to the COVID pandemic and its effect on the performance of teams. Second, the review explores the role of metacognition on the performance of teams in such a setup. Third, the paper investigates the role of coping styles in dealing with the mandate WFH and its impact on the performance of the teams. At last, this linkage is formulated into an integrated conceptual framework based on the literature evidence. Figure 1 depicts the stages adopted by the authors to conduct the review.

A selective, qualitative methodology was adopted for the review because of scarce literature evidence available in this domain. Metacognition is an emerging topic in the management field therefore, the below depicted four-phase analysis was adopted to identify the relevant literature. A search query with the following BOOLEAN criteria was conducted on the google scholar and WoS databases. The criteria included the following keywords; metacognition, metacognitive ability, virtual teams, coping styles, performance, team performance and virtual work.

Boolean Criteria:

Metacognition AND Performance; Metacognition AND Team Performance; Metacognition AND Coping patterns; Coping styles AND Performance; Coping Styles AND Team Performance; Virtual team AND Performance

The search BOOLEAN query resulted in a total of 205 entries from the databases. These articles were from the field of *Applied Psychology; Management, Psychology; Multidisciplinary Economics, Behavioural Sciences; Business; Business Finance; Psychology Applied; Industrial Relation and Labor Psychology.* These result entries were then scanned in the second phase of the review. The abstract and full-text of the papers were reviewed as per the objective of the review.

The following Inclusion and Exclusion criteria were used to analyse and select the study. The papers reviewed were required to meet one of the below-stated inclusion criteria.

Inclusion Criteria:

1   Authors included the study which used the term Metacognition; Coping styles; Virtual teams in their title, abstract and keywords.

2   The studies explored the term metacognition and coping styles in the context of teams.

3.  Studies in Journals of Applied Psychology; Management, Psychology; Multidisci-plinary Economics, Behavioural Sciences; Business; Business Finance; Psychology Applied;

Industrial Relation and Labor Psychology.

Exclusion Criteria:

1. Studies that used the term Metacognition; Coping styles; Virtual teams in their title, abstract and keywords, but didn't address the construct specifically.

2. Research studies written in a language other than English

3. Studies did not explore the linkages expected as per the objectives of the study.

The selected 15 papers were then categorized further as per the linkages highlighted in the objectives of the study.

- WFH & Team Performance
- Metacognition and Team Performance
- Coping Styles and Team Performance

*Figure 1. Selection Process*

**Database Search**
-Google Scholar & WoS
(N=205)

**Literature Analysis**
-Review of Abstract & Full text

**Literature Classification**
-Through identification of linkage between the three variables of the study (N=15)

**Conceptualisation of Linkage Framework**
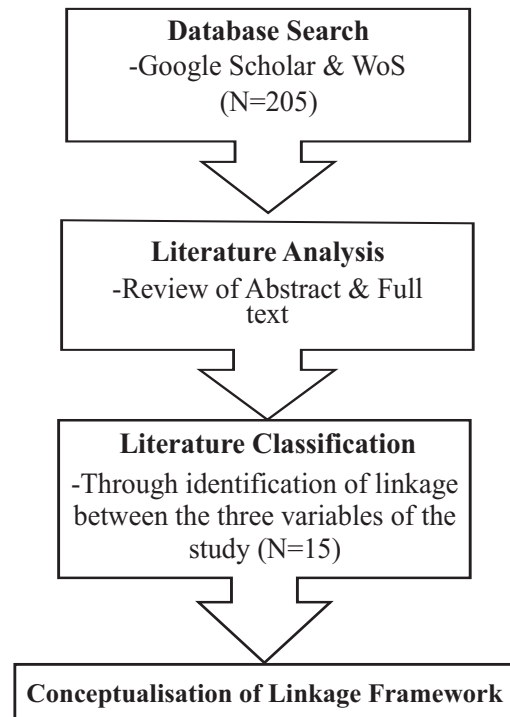
*Table 1. Key features of studies selected after review*

| S.No. | Authors (year) | Linkage Study | Findings |
|---|---|---|---|
| Work-from-home and Team Performance | | | |
| 1. | Waizenegger et al. (2020) | Forced WFH and team collaboration goals | Affordances result in a positive and negative impact on team collaboration. |
| 2. | Nguyen (2020) | Technology use and working from home | Technologies open many new solutions and directions to deal with problems in WFH. |
| 3. | Kniffin et al. (2020) | Virtual setup and workspace | Focuses on the emergent changes in the work practices and workers. Provides implications for work, workers and organisations. |
| 4. | Hacker (2019) | Virtual teams and trust | Suggests how trust develops differently across different virtual teams. |
| Metacognition & Team Performance | | | |
| 1. | Horowitz et al. (2019) | Metacognitive Ability and Team Performance | The positive impact of metacognitive ability on foreign policy team performance. |
| 2. | Sevimli (2018) | Metacognitive Ability and Team Performance | Positive correlation between metacognition and team performance of volleyball team members. |

| 3. | Hamilton et al. (2017) | Metacognitive Experiences and Team Performance | Results indicated that while actual situation awareness enhances task performance, awareness in relation to judgments or feelings of other team members impedes performance. |
|----|----|----|----|
| 4. | Nonose, Kanno & Furuta (2014) | Metacognitive Ability and Team Performance | A positive relation between metacognitive ability and team performance in a simulation task performed by students in teams. |
| 5. | Kwon, Hong & Laffey (2013) | Metacognitive Ability and Team Productivity | Improvement in team productivity while learning in teams. |
| 6. | Crotty & Brett (2012) | Metacognitive Ability and Creativity in Teams | A positive relation between metacognition and creativity amongst cross-cultural teams |
| 7. | Lee & Minhee (2012) | Metacognitive Ability and Team efffectiveness | A positive relationship between metacognitive ability and team effectiveness among nursing graduates. |
| Coping Styles and Team Performance | | | |
| 1. | Li et al. (2021) | Transparent communication, coping styles and organizational change. | Transparent internal communication encourage problem-focused coping style to reduce uncertainty and change organisation |
| 2. | Delahaij & Van-Dam (2017) | Coping styles and coping behaviour | Coping styles are directly related to coping behaviour in a stressful situation. |
| 3. | Delahaij & Van-Dam (2016) | Goal-orientation and coping system | Individuals with learning goal-orientation developed more effective coping styles. |
| 4. | Delahaij & Van-Dam (2011) | Coping styles, coping behaviour and performance in stress. | Coping styles are found to be predictors of performance in times of stress. This linkage is mediated by coping behaviour. |

*Figure 2. Conceptual linkage model*
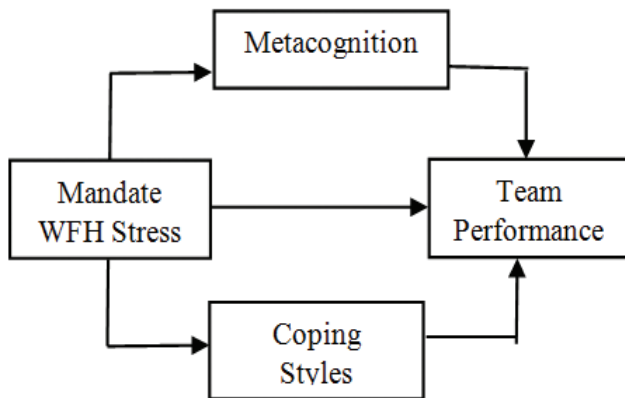


Literature Classification:
Research in the educational field has highlighted the relevance of metacognitive ability among students and learning outcomes (Pintrich, 2000). Studies have highlighted individuals' better engagement in alternate strategies, collaborations, self-managed learning, innovation and effective decision making with high metacognitive abilities (Batha & Carroll, 2007; Kim & Lee, 2018 and Brinol & Marree, 2012). These traits are essential in the workplace among employees. Recent research in specialised teams (military, firefighters) has shown a positive relationship between metacognitive awareness and performance (Frye & Wearing, 2016; Entin & Entin, 2000). A positive relation is also observed in recent studies investigating the relationship between metacognition and employee performance at the workplace in various managerial processes (Cho & Linderman, 2019; Yoo, Choo & Lee, 2018; Lok et al. 2016).

Some military profession studies have recently highlighted the linkage between an individual's awareness of stress responses and coping strategies for regulating stress (Delahaij et al. 2011; Delahaij & van Dam, 2016). The study results highlight how metacognitive awareness about stress and coping contributes to developing and adopting effective coping styles.

This emerging stress in newly formed virtual teams and the regulation strategies adopted by employees need to be acknowledged for employees' compelling performance. It is essential to identify whether the literature supports individuals' coping styles in controllable (problem-focused coping) and uncontrollable circumstances (emotion and avoidance-focused coping) in the case of virtual teams. It will be empirically interesting to find the role of individual metacognitive awareness on stress responses and further on virtual team performance.

## 5. CONCLUSION AND DISCUSSION

Therefore, this paper provides a theoretical overview for researchers to establish a relationship among the above-stated linkages empirically. It is evident that the pandemic has led to various changes in employees' fundamental working styles in co-located settings. This setup might exist for a long because of cost-savings concerning office space and health risk, which persists even after the pandemic ends (Pejtersen et al., 2011). Therefore, it is vital to develop and learn to work in this restructured format. As the literature findings suggest the positive role of metacognitive ability among teams, managers need to provide training to employees to build their metacognitive ability, which will improve individual and team performance. A study by Hamilton, Mancuso, Mohammed, Tesler & Mcneese (2017) supported the enhancement of team performance for individuals aware of their judgements and feelings.

Acute events often help recognise and understand important dynamics that might not be visible in normal circumstances (Kniffi et al., 2021).

## 6. IMPLICATIONS AND FUTURE DIRECTIONS

The findings of the review highlight the importance of metacognition and coping styles in improving performance in times of stress and uncertainty. The metacognitive awareness of stress can help workers and managers cope with stress along with the use of coping styles in a virtual team setup. Metacognitive experiences and training techniques can also be used to enhance active learning and error management skills among professionals to cope with the changes in the working environment (Bell & Kozlowski, 2008; Keith & Frese, 2005). Team reflexivity is

also considered important for sharing observations about the aims of teams, strategies and future action plans. Metacognition in teams can therefore be developed via team reflexivity (West, 2000). Therefore, improving metacognitive ability and the use of problem-focused coping styles will enhance individual and team performance. Managers should, therefore, incorporate training modules to enhance individuals cognitive and behavioural characteristics.

This theoretical outline linking virtual teams, coping styles, and metacognitive awareness of stress can help employees and managers at the workplace cope with the challenges faced in the virtual team set-up.Further empirical advancement would help training & development teams support and develop coping styles among employees in uncertain and stressful situations.

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# Sustainability of Sustainable Business Practices: A Literature Review

**Shuchi Pahuja***

## Abstract

*A heightened focus on harmful impact of many business and industrial activities on the society and environment is prompting many companies to incorporate sustainability into core business practices. But in order to sustain these practices, a business must have sufficient profits. A business can continue with these sustainability initiatives as long as these do not hamper its survival and growth. This gives rise to a pertinent question- how sustainable are the sustainable business practices? This paper aims to explore financial impact of corporate sustainability initiatives. The study is exploratory in nature and is based on secondary data collected from various published sources and internet. In order to assess business case for sustainability, an extensive review of literature has been done. Research studies on relationship between corporate sustainability performance (CSP) and corporate financial performance (CFP) conducted in different countries in the past 20 years (2001-2020) have been reviewed. The preponderance of research works has shown positive relationship in corporate sustainability performance and corporate financial performance. An analysis of current sustainability practices of some large corporations in India also revealed that these companies are innovating and making profits through sustainability initiatives. A strong business case for sustainability has been found in India. The study makes a useful contribution by providing an insight into the existing literature and indicating future research perspectives and policy implications*

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# 1. INTRODUCTION

During the last few decades, there is a growing concern among policy makers, corporates, investors, consumers and society at large about the impact of business and industrial activities on the environment and society. It has been realized that intensive use of natural resources and generation of environmental pollutants and waste during industrial processes and business activities have caused escalating environmental degradation endangering health and survival of living organism on the Earth. It is now inevitable that Government as well as private players should join hands to deal with this grave situation and work towards betterment of this Planet. The emphasis these days is on environmentally and socially sustainable industrial development.

At corporate level, the concept of Sustainable Development says that a company should make decisions not only on the basis of financial/economic factors, but also after considering the social and environmental consequences of its activities. According to KPMG, "corporate sustainability is defined as: adopting business strategies that meet the needs of the enterprise and its stakeholders today while sustaining the resources, both human and natural, that will be needed in the future" (KPMG International, 2011). Adopting sustainability requires companies to incorporate economic, social and environmental factors into their business decision making, operations, policies, programs, systems and also in their interaction with the stakeholders. According to EY India, "integrating sustainability in business means redesigning and redefining of strategy and operational processes that meet the changes, needs and expectations of the market and society alike to support long-term value" (EY India, 2018). The concept of corporate sustainability requires that businesses should accomplish their profitability and growth objectives with green solutions and innovative technologies that support environmental conservation and social welfare.

Last two decades have witnessed significant increase in big corporations embracing triple bottom-line (TBL) thinking with a focus on 3Ps-profits, people and planet. Many of them are doing so not because it is compulsory or because it is the right thing to do, but because they want to reap the business benefits of using sustainable business practices. There is a growing realization that investing in sustainable business practices makes good business sense. Companies across the world are thriving to find sustainable business solutions so as to deliver attractive returns to the shareholders as well as society. This paper tries to analyse the pressures from powerful stakeholders driving companies to embrace sustainability. Taking clue from the existing research in the area and examples of prevailing corporate practices, the paper aims to explore sustainability of sustainable business practices. An attempt has also been made to examine financial impact of corporate sustainability initiatives taken by some large corporations in India.

The paper has been structured into six sections. The first Section is introductory in nature. Section two explains stakeholders' pressures on business to adopt sustainable practices. Section three analyses benefits of using sustainable business practices. Section four reviews existing literature on business case for sustainability. It also provides empirical evidence on sustainable business practices in India. Section five presents discussion and policy recommendations. Finally, Section six concludes the paper.

## 1.1 Stakeholders' pressures on business

Since early 1990s, companies across the world are under increasing legal pressure to take steps to reduce their environmental impacts. Many laws and regulations have been enacted at national and international levels imposing stringent requirements to use clean technologies, control pollution and conserve resources. Some countries have even mandated CSR spending by specified corporations. Violation of these laws and regulations may result in significant fines, penalties, liabilities and even risk of closure of business.

Pressures are there on companies from various internal and external stakeholders to become socially and environmentally responsible. An important stakeholder for business is its employees. Increasingly, many young people now place more emphasis on green companies. They

know that environment in the office or factory has direct impact on their health. Thus, before joining a new job, besides other factors, they also consider factors likesafety, health and environmental policies, environmental management system, environmental risks, and green initiatives of the company to ensure that they work in environment-friendly and safe atmosphere. It may save them from various potential hazards like Union Carbide Bhopal Gas tragedy.

There has been a significant growth in ethical consumers these days who prefer buying green products even when these products are little expensive. Ethical consumers demand products which are produced in a sustainable manner, do not contain harmful toxic chemicals and which can be disposed-off in an eco-friendly manner. Sustainable product brands are gaining popularity among these consumers. Businesses have started recognizing the fact that to maintain or grow market share in future, greener products and processes will be required. Even at industry level, for sustainable supply chain, big corporations demand detailed environmental foot-print data from the suppliers.

Consideration of environmental, social and governance (ESG) factors in investment decision making has gained significance over years (FTSE Russell, 2018).Ethical/socially responsible investors look for socially responsible investment avenues. Companies with low ESG scores find it difficult to get investors for their projects.   The financial community like banks and insurance companies are taking environmental risks, specifically carbon risk seriously. Several hedge funds are launching climate change funds as well. Stock exchange sacross the world have started establishing ESG/SRI indices to track performance of socially responsible companies or funds. Various NGOs along with media are also fighting against the devastating polluting activities and hazardous waste disposal practices of many industries. This has put even more pressure on the corporations to reduce adverse impact of their activities on the environment and the society.

Internally, sustainability practices have gained importance at all the levels of management.

Integrating sustainability into management requires a holistic approach where product, processes, plans, policies, projects etc. embrace environmental and social aspects in addition to profitability objective. From raw material procurement to production, distribution, marketing, services, consumption and even disposal of the used product, sustainability is being integrated at every stage of a product from cradle to grave. Mounting inflationary pressures have made it necessary to take steps for conservation of scarce resources and become eco-efficient. Efforts are being made by top management in many companies to encourage the employees to innovate and find ways to do more with lesser resources so as to set the company up for rapid growth and success in the long run.

Thus, there are pressures on business from various internal and external stakeholders to imbibe sustainability into managerial decision making and business practices.  Need is there to measure and to report sustainability performance and its benefits to concerned stakeholders so as to help them in making informed decisions (Pahuja, 2010).

### 1.2 Benefits of being green

Business and industry cannot ignore increasing stakeholders' pressures for adopting sustainable business practices. The expectation from a company today is that it should not only create economic value for the shareholders, but also deliver benefits to society and the planet. Among rising awareness of the impact businesses can have on the environment and society, companies of every type and size have begun integrating sustainability issues into their business strategies. In this scenario, many questions are raised- Is it a rightdecision always to incorporate sustainability into business practices? Are sustainability goals and profitability objectives contradictory? How sustainable are the corporate sustainability practices?

Earlier the opinion was that greater attention to sustainability issues leads to an increase in costs and hence lowers profits of business organizations. But now it has been realized that sustainability and

profitability goals are not contradictory in nature. In fact, the financial gains from sustainability are long-term in nature. Many companies have already experienced how becoming sustainable makes good business sense also. Research has shown that a business can maximize shareholders' value by using sustainable business practices (Lagace, 2002). Eco-efficiency and sustainability are not only beneficial for the society, but can also lead to resource savings, cut in production costs and increase in profits for business in many ways. Companies are innovating in the realm of sustainability policy because it pays to be sustainable.

Some of the benefits of sustainable business practices are:

- Reduction in water, energy and raw material consumption leading to lower input costs.

- Saving costs associated with waste treatment and disposal through efficient waste management.

- Cost savings in the form of reduced annual operating costs.

- Reduced tax liability by receiving tax breaks and other tax incentives from government for energy efficiency, use of renewable energy and other environmental protection measures.

- Meeting government regulations leading to reduced governmental action and legal costs.

- Increase in income due to environmental actions like recycling paper, finding new applications for non-hazardous waste (e.g. using wood scraps to make toys, making manure by decomposition of dry leaves)

- Increase in sales due to enhanced corporate image: Research has shown consistent increase in number of ethical consumers who prefer green products and are even ready to pay more for green products.

- Competitive advantage due to reduced costs and increased revenue.

- Increase in employee productivity and reduced employee turnover

- Enhanced operations through new product innovations with a focus on sustainability.

- Reduced financing costs as companies can get loans at lower rates for green projects under environmental stimulus packages of various governmental and non-governmental agencies.

Thus, there may be huge profit opportunities in adopting sustainability goals. In addition, sustainability measures also lead to many non-monetary gains for the company and its stakeholders. Brand image, enhanced reputations and goodwill gives long-term advantages to responsible corporate citizens. Use of clean technologies and pollution free environment in factory and business premises can have huge, positive health impact on employees which leads to their increased productivity. It also helps in attraction and retention of talent in the organization as employees these days want to work in healthy and safe environment. Research has shown that firms with good sustainability performance are considered to be better employers and attract good quality human resources (Turban & Greening, 1997). Moreover, business can ensure improved customer health by providing green, eco-friendly and healthy products to customers. Using sustainability practices reduces risk of adverse stakeholders' reactions. It also mitigates risk of legal action and penalties. In addition, there are many social benefits of being sustainable like reduction in pollution levels, conservation of scarce natural resources and benefits to the society through CSR activities. All this helps the nation in achieving the ultimate goal of sustainable economic development.

## 2. REVIEW OF LITERATURE

In order to assess business case for sustainability, an extensive review of studies showing relationship between corporate social/ sustainability performance (CSP) and corporate financial performance (CFP) conducted in different countries in the past 20 years (from 2001 to 2020) has been done. Articles and reports on prevailing corporate sustainability practices in India have also been analyzed to check the financial impact of incorporating sustainability into business policies and strategies. The objective is to assess sustainability of sustainable business practices.

The relationship between CSP and CFP is heavily debated topic in research. There is preponderance of research works showing positive relationship between CSP and CFP (Callan & Thomas, 2009; Beurden & Gossling, 2008; Fauzi & Idris, 2010; Lin et al., 2009; Ameer & Othman, 2012; Mallin et al., 2014; Saeidi et al., 2015; Backstorm & Karlsson, 2015; Agan et al., 2014; Cornett et al., 2016; Maqbool & Zameer, 2018; Dalal & Thaker, 2019; Cho et al., 2019). This relationship is true in both the directions. Many studies explained how higher CSP leads to higher financial performance (Backstorm & Karlsson, 2015; Callan & Thomas, 2009; Maqbool & Zammeer, 2018; Dalal & Thaker, 2019; Bodhanwala & Bodhanwala, 2018). Companies have started recognizing that meeting the needs of various stakeholders improves profitability of the concern, while failure to meet expectations of the stakeholders may adversely impact reputation of the company, leading to decreased sales and reduced profits. Saeidi et al. (2015) analyzed data from 205 Iranian manufacturing and consumer product firms to check the connection between CSR and firm performance. The findings of the study suggested that CSR activities help in providing satisfaction to the consumers, increase reputation and give competitive advantage to the firm. This leads to enhanced financial performance. Some papers (Moore, 2001; Cornett et al., 2016; Hategan et al., 2018) suggested that large size concerns with better financial performance do better on social and environmental fronts also.

It has been found by many studies that profitability and sustainability goals are not contradictory in nature. Callan & Thomas (2009) used data taken from 441 firms and found empirical evidence of a positive CSP–CFP relationship. It was suggested that firms need not view social responsibility and profitability as competing goals. A firm can get significant benefits from its socially responsible decisions if stakeholders recognize and reward these decisions. They found inconsistency in financial returns of CSP across industries. Ameer & Othman (2012) took a sample of top 100 sustainable global companies in 2008 and tested the hypothesis that companies with superior sustainable practices have higher financial performance as compared to those that do not engage in such practices. During the study

period from 2006 to 2010, they found significant higher financial performance indicated by sales growth, return on assets, profit before taxation, and cash flows from operations in some sample companies when compared with other companies. The study also reported increase in financial performance of sustainable companies during this period. They found bi-directional relationship between CSP and CFP.

Chen et al. (2018) found positive relationship in green initiatives, green performance and financial performance, but there were cross country differences. Lourenco et al. (2021) found CSP to have positive impact on stock prices. The study established that investors in the market penalize firms having substantial profitability but a relatively lower level of CSP. Bodhanwala & Bodhanwala (2018) analyzed impact of corporate sustainability on profitability performance. Using a sample of 58 Indian firms on Thomson Reuters Asset 4 ESG database, the study found significant positive association between sustainability and profitability.

There are few works which found CSP having negative impact on CFP (Moore, 2001; Brammer et al., 2005; Tyagi & Sharma, 2013; Grisales & Aguilera, 2021; Jha & Rangarajan, 2020). Milton Friedman argued that "the only social responsibility of a business is to earn profits" (Friedman, 1970). The author felt that companies involved in sustainability initiatives have to incur more costs, which reduce their profitability leading to poor financial performance. Hence, through increased costs and prices, sustainability practices lead to competitive disadvantage for the firms. Jha & Rangarajan (2020) analyzed relationship between CSP and CFP for companies in India. They took data from top 500 Indian firms for a period from 2008 to 2010. At an aggregate level, the study did not find any significant association between CSP and CFP. At firm level, negative relationship was found between these two. The study indicated that firms in India might not be getting economic benefits from their sustainability related investments.
Some studies reviewed existing research works on association between CSP and CFP and found that though majority of the studies reported positive association between CSP and CFP, research in the

area is yet broadly inconclusive (Mcwilliams & Siegel, 2001; Orlitzky et al., 2003; Margolis et al., 2009; Beurden & Gossling, 2008; Alshehhi et al., 2018; Tuppura et.al., 2016). Alshehhi (2018) found that out of 132 research papers analyzed by them, majority (more than three-fourth) found positive relationship between CSP and CFP. The authors felt that varying research techniques and different measurement might be possible reasons for different views on this relationship. Quazi & Richardson (2012) attributed the variation in relationship between CSR and CFP to different sample size and methodology. Callan & Thomas (2009) also found the need for more efforts to explore this relationship.

Some researchers found that while CSP may not have much impact on short-term performance of the firm; in the long-term, sustainability performance leads to higher financial results. Lin et al. (2009) examined data for 1000 Taiwanese companies for a period of 2002 to 2004 and found positive relationship between CSR and CFP. But after some modification in the model, it was found that while CSR did not have much positive impact on short-term financial performance, it significantly impacted financial results in the long-term. Lu & Taylor (2016) conducted a meta-analysis of 198 studies and found that a firm's performance on sustainability dimensions improves its financial performance in the long run. They suggested that environmental sustainability contributes to this positive relation more as compared to social sustainability. Delmas et al. (2015) used data for 1095 US corporations from 2004 to 2008 and found negative impact of better environmental performance on financial performance in the short term; however, over a long period, investors attached more value to firms showing better environmental performance.

Though majority of the existing studies were based on secondary data, there were some primary databased studies which collected opinions of the corporate executives on the business case of sustainability (Fauzi & Idris, 2010; Agan et al., 2014; KPMG International, 2011). Some of these primary data based studies even tried to seek opinions oncosts and benefits of and drivers for sustainability practices. Bonini & Swartz (2014) reported in a survey conducted for Mckinsey that about 44 percent

of the respondents considered business growth opportunities as the most significant reason for undertaking sustainability related measures. It was shown that companies are practicing sustainability in such a way so as to create value for the company as well its stakeholders. According to a survey of 185 global asset owners by (FTSE Russell, 2018), more than 50 percent of the respondents were found to be involving ESG considerations in their investment strategy.

In 2011, KPMG in cooperation with the Economist Intelligence Unitpresented a report based on a global survey of 378 senior executives from a wide range of industries from different countries. About half of the responding executives agreed that implementing sustainability practices can lead to improved financial benefits either by cost reduction or by increasing revenue. Legal requirements, brand enhancement and managing risk were found to be key drivers of sustainability. The respondents were of the view that sustainability presents a source of innovation and new business opportunities for the concerns. In another survey, KPMG & FICCI (2014) found that the main drivers of sustainability globally are: "regulations, access to capital, expanded consumer base, social licence to operate, innovation, brand and reputation and operational efficiency".

In a report by Accenture & United Nations Global Compact (2013), 84 percent of the 1,000 global CEOs surveyed agreed that business "should lead efforts to define and deliver new goals on global priority issues".But only one third of them were convinced about the efforts of the business to deal with global sustainability challenges. Climate change, health, poverty, sanitation etc. were among some of the key sustainability issues which businesses should consider as per the executives. Majority of the executives were of the view that embracing sustainability into core business strategies can lead to enhanced revenue and growth opportunities.

There were few articles which explicitly focused on reasons for profitability of sustainability initiatives. An article by Gurnami (2020) titled "sustainability and profitability can co-exist-

here's how" emphasized on the immediate need for companies to look beyond the financial bottom-line and build ESG considerations into their strategies in order to reduce risk and improve profitability and growth. Haanaes et al. (2013) showed how companies with successful sustainability practices in developing countries used strategies like long-term view in sustainable investment, conservation of resources, sustainability chain management etc. to reduce cost and improve profits. Ambec & Lanoie (2008) in their article "does it pay to be green? A systematic overview" analyzed reasons for increase in revenue and decrease in cost due to better environmental practices. They found that organizations most likely get benefit from better environmental performance. Giving examples from corporate practices and existing literature in each of the situation, they found that "better access to certain markets, differentiating products and selling pollution control technologies provide opportunity for increasing revenues, while risk management and relations with external stakeholders, reduced cost of material, energy and resources, lower cost of capital and labour leads to cost reductions".

Matching with the global trend, many large Indian companies are actively implementing sustainability principles into their strategies and goals and are earning good financial returns also. An analysis of annual and/or sustainability reports of some of these companies revealed howthese companiesare working to meet their sustainability goals along with profitability and growth objectives. According to a report by Sanghvi (2020) in Economic Times, "Havells India and Godrej Consumer Products are among the 12 Indian companies that are going to be included in the Dow Jones Sustainability Index (DJSI) 2019, used for assessing environmental, social and governance (ESG) performance". Explaining importance of sustainability in organizations, the report cautioned that even when a company is making huge profits, but if it is not performing well in terms of ESG, it may lose its significance over a period of time. It would be difficult for such firms to raise capital from the market. The report showed how sustainable companies are showing good financial performance also. 123 year old Godrej, the largest FMCG brand shines ahead of its peers for its sustainability strategy

and targets (Godrej Interio, 2020). Company has taken sustainability measures like reducing gender inequality, employee safety, resource conservation, energy, water and carbon management, life cycle approach, and CSR spends. Ranked sixth in DJSI, Havells is one of the India's leading fast moving and consumer durable company (Sanghvi, 2020). In order to create long-term value for the key stakeholders, Havells uses sustainability initiatives through innovation in all its activities like production, distribution, marketing, branding etc. "Havells' philosophy of 'shubh Labh'is centered on the holistic development of the society" (Havells, 2020).

Asian paints holds more than a third of the market share and have a ROE of as high as 26.39 percent and it is doing well on ESG parameters also (Sanghvi, 2020). Asian Paints has launched a scheme 'NEW' focusing on conservation of natural resources, reduction of energy and emissions, and waste management (Asian paints, 2018). HUL, India's largest FMCG company was awarded top rank in 2019 sustainability leaders' survey as per the report. Launched in 2010, Unilever sustainable living plan (ULSP) India aims at achieving sustainable growth through reduced environmental footprint and positive social impact (Uniliver, 2020). The focus of the plan is on improving health and well-being of people, reducing environmental impact and enhancing livelihoods.

At Hero motors, sustainability and responsible growth is the way of life (Hero Motocorp Limited, 2020). The company has used sustainable policies and strategies to earn and retain a position of world's largest manufacturer of motor cycles and scooters for about two decades. At PI industries, sustainability is embedded in the core business strategy. The company strives to create and share holistic, long term fair value for all the stakeholders. With the strong belief in business case for sustainability, PI industries is steadily increasing investments in social and environmental initiatives which is making PI a sustainability champion (PI Industries, 2020). The company sets an example of use of TBL by striving to maintain right balance in economic

growth, environmental conservation and social welfare.

Wipro, India's big technology company is managing responsibility with profitability. Wipro spent Rs. 1669 million towards CSR in 2020 (Business World, 2020). Its key sustainability initiatives included reducing carbon footprint, GHG emission reduction mitigation plan, use of renewable energy sources, water conservation, waste management, gender equality and supply chain management. Bonini & Swartz (2014) cited examples of companies like Du Pont and Bayer which made quantifiable financial benefits through their sustainability initiatives. Investments in research and development, innovation, and technology led to improved resource management, cutting of costs, reducing environmental footprint and managing waste. All this gave environmental as well as financial benefits to these concerns. In a study by Hardcastle (2017), it was reported that Walmart stores is a good example of business case for sustainability. Walmart is taking sustainability initiatives to reduce its carbon footprint, but its reasons for going sustainable are purely economic. "The company saves $1 billion a year on its improved fleet efficiency alone". Whelan and Kronthal-Sacco (2019) found that products marketed on the basis of sustainability grew faster than their counterparts.

A review of literature in the area has shown that there is sufficient evidence of positive relationship between CSP and CFP. The sustainability performance may not have significant impact on financial returns in the short run, but in the long run, it helps in improving economic results. The success stories of sustainable business practices in India have shown that it is economically feasible and in fact, very sensible to do business in an environmentally and socially responsible way.

## 3. DISCUSSION AND POLICY RECOMMENDATIONS

In the past few decades, there is a growing realization that businesses should look beyond financial bottom-line to focus on ESG considerations. Mounting social and legal pressures have made large companies across the world to embrace the concept of triple bottom line. Historically, the thinking was that the concept of sustainability focuses more on people and planet. Investments in sustainability initiatives were thought to be quite expensive leading to decline in overall profitability of the concern. But now, it has been recognized that sustainability and profitability goals are not contradictory in nature. The application of the concept of sustainability requires a balance between people, planet and profits- the three pillars of sustainability. Hence, improving economic performance is an equally important dimension of sustainability.

In 21$^{st}$ century, corporate managers have started considering sustainability as an opportunity and not as an obstacle which hinders company's financial gains and growth. Research in the area has shown two way linkages in CSP and CFP. Good sustainability performance leads to good financial performance and companies showing good financial results can spend more on social and environmental initiatives. Sustainable companies attract more consumer demand, lead to higher productivity of human resources and find it easier to raise capital from the ethical investors. In order to create a sustainable brand image, many companies have started taking sustainability initiatives voluntarily, even where there was no legal compulsion to do so. Banks and other financial institutions are putting more focus on the impact and design of sustainability programs to understand a company's ability to manage risks and generate returns to meet repayment schedules. Some studies have found that in the short term, sustainability may appear to be an expensive affair as most of the benefits emerging out of these practices are basically long term in nature. But incorporating ESG principles into long-term growth strategy can enable a business to mitigate its environmental and other risks and drive long-term profitable growth. A right balance between business profitability and sustainability concerns can create enhanced long term value for the company and for its stakeholders.

Though large number of studies conducted across the world have shown positive relationship in CSP and CFP, it has been pointed out by many researchers thatthe empirical evidence on this relationship is yet not conclusive. Lack of theory,

improper definition of key terms, varying sampling, data collection and measurement techniques were cited as main reasons by the researchers for this inconclusive relationship. Some studies have also indicated cross-industry and cross-country differences in financial returns from CSP. More work is needed to understand the identification and measurement of corporate sustainability performance indicators. Some studies showed that earlier meeting regulatory requirements and managing risks were considered to be the main drivers for adopting sustainability. But over the years, cost reduction, brand enhancement and business growth opportunities are also becoming important drivers of corporate sustainability. Further research can be conducted to identify key drivers of corporate sustainability.

An analysis of recent corporate practices revealed that large corporations in India are using sustainable business policies and strategies very efficiently and profitably. These companies are undertaking many environmental and social initiatives and performing well in economic terms also. But this may not always be the case. The financial impact of sustainability strategies may differ from company to company depending upon its origin, nature, size and profitability. In fact, analysing impact of corporate characteristics on the relationship between CSP and CFP provides scope of future research in the area in India.

Following examples of sustainable large companies, small and medium enterprises (SMEs) can also incorporate sustainability and business responsibility to make their business grow and become profitable. But implementing sustainability in the SMEs may involve many obstacles. Creating and running sustainability programs requires technical and professional expertise which may be lacking in these enterprises. Moreover, finding finances for the sustainability projects is difficult for these concerns. Adequate long-term funding of sustainability programs of these concerns by banks and financial institutions is required. Creating awareness about green financial avenues among SMEs is also needed. More needs to be done by policy makers and regulators to encourage SMEs to embrace sustainability. Though there are many studies on sustainability practices of large

companies across the world, not much research evidence is there showing sustainability practices of small and medium enterprises (SMEs). Hence, there lies a research gap in this area.

With growing awareness about the importance of sustainable development, stakeholders have started demanding more and more credible information on the impact of sustainable business practices. It has become imperative that companies should measure, recognize and record sustainability related costs and benefits in the books of accounts. But in the absence of accounting guidelines and standards in this regard, companies are finding it difficult to assess social and financial impact of their sustainability initiatives and to build a business case for their sustainability programs. An urgent need is there to develop accounting standards and guidelines for sustainability accounting and reporting in order to provide credibility, uniformity and consistency in sustainability disclosure practices of various companies (Pahuja, 2009). Professional accounting bodies should come up with sustianbility accounting and reporting framework for the benefit of users of corporate sustainability reports.

## 4. CONCLUSION

In 21$^{st}$ century, sustainability is becoming a strategic priority for the business organisations all over the world. Integrating sustainability into business strategies and practices has become imperative for every organisation, large or small. A review of literature in the area has suggested that sustainable business practices can be beneficial for the company as well as for its stakeholders. There is a strong business case for incorporating sustainability into core business activities in India. It has been realized that a well-designed sustainability approach offers opportunity for innovation to reduce resource consumption, cut GHG emissions and waste, save costs, increase productivity, gain competitive advantage and thereby enhance profitability. A long-term orientation in sustainable plans and investments helpsfirms to manage risks and improve growth and financial gains. Understanding significance of sustainable business practicesfrom social,

environmental and financial perspectives is the core consideration for a successful business today.Using an integrated and proactive approach to sustainability, companies in India can convert global sustainability challenges into profitable business opportunities. In order to understand sustainability of these sustainable business practices, credible information on the financial impact of social and environmental initiatives is needed. Sustainability accounting and reporting can be used as a management tool to establish business case for sustainability. The study found the scope of future research to identify and measure sustainability performance indicators and to recognize sustainability related costs and benefits in the books of accounts. Analyzing determinants of corporate sustainability performance is another area to be explored by the researchers in India. A further study can also be conducted to analyze sustainability practices of SMEs in India.

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# An Empirical Study of Intention to Use E-Wallets During Covid-19 Crisis

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## Abstract

*For any business or economic environment, in order to stay competitive, need new strategies and technology practices. Twenty first century is one, which has brought a major shift in the technology in terms of digitalization. With the help of new technologies, new opportunities are explored to contribute in world's economy. E-fund transfer and E-transactions is the new wave in the world of digitalization. Digital wallets are one of the major technology advancements in the area of e-commerce, which has become one of the greatest supports in Covid-19 outbreak to continue to meet the needs and wants of the consumer to shop online/ offline with E-payments convenience, in order to maintain social distance and zero physical contact norms. As it gains more popularity, E-wallets drive its users to spend more.*

*Therefore, the purpose of this research study is to explore the influence of Covid-19 on the intentions of using E-wallets amongst the people residing in North India. It also intends to find out the factors affecting intention to adopt E-wallets. Attempts to understand the relationship between age and the factors influencing intention to use E-wallets amongst North Indians was also done. This study adopted empirical research design to online survey methods to gather the perception of E-wallet users in the study area. The study comprises the sample size of 281 respondents from North India. The analysis was done using SPSS 21. The study used Exploratory Factor Analysis and Chi-square for finding out the results. The study identified perceived benefits, perceived risk, perceived government security and intention of future usage as four factors affecting intentions to use E-wallets during Covid-19. Snowball sampling method was used for the study. The questionnaire was circulated to 298 respondents who agreed to participate in the survey.*

**Keywords:** E-Wallets, Covid-19, Digital Payment, Perceived Risk, Perceived Intention, Government Support, Digital India.

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## 1. INTRODUCTION

Covid-19 pandemic resulted in another major global economic crisis in recent times. Almost every country had to force lockdown their people in their houses to curb the spread of the disease. This affected the world's economy. It has brought significant change in the means of doing business by every company across industries. In developing countries like India, almost every sector of the economy, like socio-economic, tourism and travel, finance or supply chain, got affected because of the crisis. But the above situation provided another opportunity related to the usage of digitalization by filling gaps for technology, innovation, speeding experience, use of advanced technology, use of digital transactions and E-fund transfer in every corner of the country. The measures of social distancing and zero physical contact actually facilitated the initiative taken by Government of India, i.e., *Digital India*, to make the Indian economy into a cashless economy.

Initially, there was reluctance and apprehensions about the adoption of this "e" revolution. However, cashless payment transactions had already gained interest in the country. The revolutionary adoption of "E" world by Indians

*Figure 1. Digitalization of customer interaction during Covid-19 crisis.*
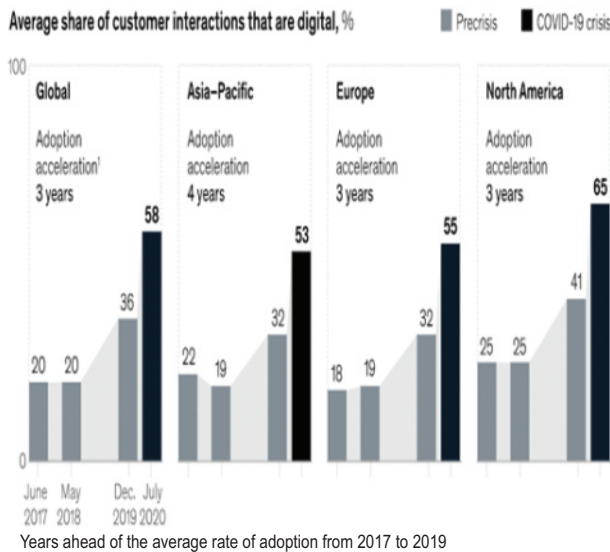


Source: McKinsey & Company (2020)

astonished investors, analysts and prognosticators. The rate of digitalization adoption in India is more than expected. As per the reports, published by McKinsey and Company, in Figure 1, the Covid-19 crisis has accelerated the customer interaction with the companies digitally by several years. Globally, the average number of digital customer's interaction has gone up by almost 190% in just 3 years, from 20% in June, 2017 to 58% in July, 2020.
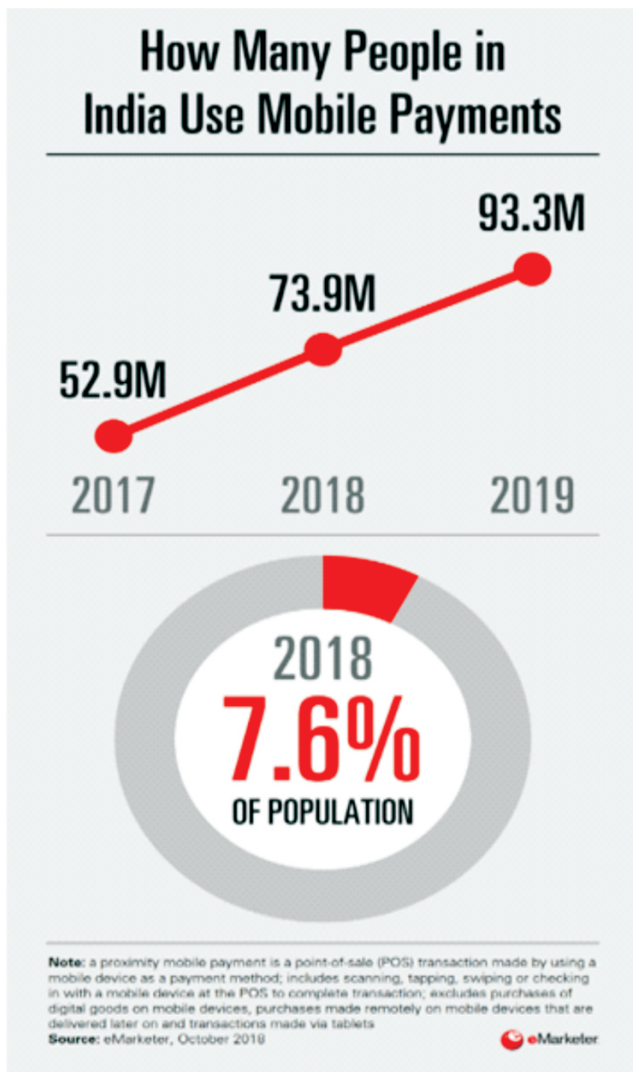
According to McKinsey Global Survey report, to address the rapid shift of interacting with customers through digital channels, companies shifted their supply chain and internal operations digitally by several years. Companies have also accelerated their share of digital investment or digital products in their portfolio. The e-commerce aided the performance of all businesses dealing online. Among the technologies introduced by e-commerce, one of the major technology/fledglings is Mobile Wallet.

As per cashlessindia.gov.in, "a mobile wallet is a way to carry cash in digital format. User has to link his/her credit/debit card information in mobile device to the mobile wallet application or can transfer money online to mobile wallet. An individual's account is required to be linked to the digital wallet to load money in it. Most banks have their E-wallets and some private companies. e.g., Paytm, Freecharge, Mobikwik, Oxigen, mRuppee, Airtel Money, Jio Money, SBI Buddy, itz Cash, Citrus Pay, Vodafone M-Pesa, Axis Bank Lime, ICICI Pockets, SpeedPay etc." It is one of the flagship programs of Government of India under the umbrella of Digital India Program. Hence, to enhance cashless economy, to make digital payments and to avoid carrying physical purses, E-wallets were introduced. It is an intangible payment service that has been launched in the form of an application where it can be installed in the smart phones and acts as one of the online payment methods. As, per the cashless India government portal, "there are approximately 40 companies providing E-wallet services." According to Magneto IT solutions, "the first E-wallet introduced in India was Oxigen Wallet launched in July 2014."

The accelerated usage of smart phones supported

the usage of mobile wallets in a remarkable way. As per the BCG and Google Report (2018) the Smartphone users also accelerated to 320 million in 2017 from 68 million users in 2013. According to eMarketer, "India has 337 million active smartphone users until November 2018. Now, according to Cisco, by 2022, there will be 829 million smartphone users in India, which will be 60% of the total population. With so many people using smartphones in India, the use of mobile wallets are also increasing day by day. According to the report released by eMarketer, as shown in Figure 2, over the total number of smartphone users in India in 2018, India had 73.9 million people using mobile wallets."

### Figure 2. Mobile payment usage in India

To understand the payment behavior and customer preferences from numerous payment methods available, the *Reserve Bank of India* conducted a pilot survey on retail payment habits of consumers, in six major cities of India (Delhi, Mumbai, Kolkata, Chennai, Bangalore and Guwahati) between December 2018 and January 2019. The focus of the survey was to assess the awareness and usage frequency of digital payments, which will help in formulation of future policy frameworks. The survey report indicated that there was a widespread awareness of digital payment with a favorable viewpoint of convenience.

### Figure 3. Mode for digital payments

**Preferred Mode (in per cent)**
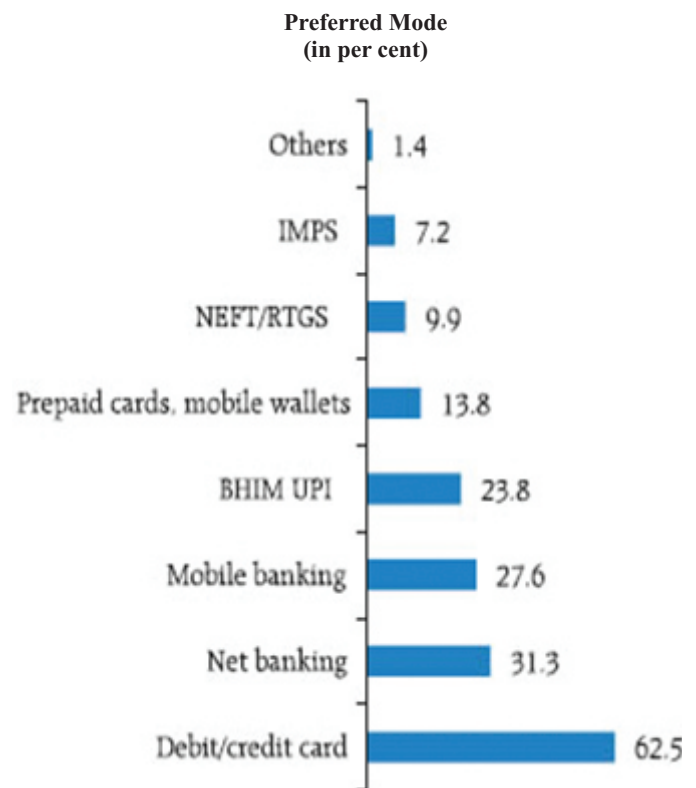


Source: Raja Ram Priyadarshi (2020)

The survey illustrated that 'credit/debit cards' are the most preferred mode for digital payment amongst individuals with 62.5%, followed by 'net banking' with 31.3%, 'mobile banking' as 27.6 % and 'BHIM UPI' 23%. 'Prepaid cards and E-wallets' are preferred by 13.8% of the population for making digital payments. The survey results also indicated that various infrastructure related

logjams should be removed to enhance the awareness and usage of e-payments. However, the low safety awareness, safety norms and increase in the number of cyber frauds in the digital payment system were the major concern among the individuals.

## 2. LITERATURE REVIEW

The existing literature advocates that an extensive usage, adoption, and usefulness of digital payments helps not only in increase in financial inclusion but also, to ascertain the attitude, behavior, payment habits, perceived risk attached with payment systems. The literature also suggests government support in framing the suitable policies without compromising on financial stability. Nag & Gilitwala (2019) keenly investigated "perceived usefulness, perceived ease of use, security/privacy confidence, social influence and trustworthiness" as factors that influence the use of E-wallets.

According to Shukla (2016) the convenience of usage of digital payment and smartphone captured the attention and enhanced the usage frequency of a wide range of consumers. The users find e-payment as a swift and time saving mode of payment when catering to Covid-19 social distancing norms. Faster transaction facility with the help of 3G and 4G technologies by telecom companies are a great helping-hand along with motivation and reinforcement by government agencies for digital payments are proved well-known contributors towards the initiative of *Digital India*. The Author has suggested four types of E-wallet in India such as "open, closed, semi-open and semi-closed". The author also suggested certain promotional offers to be provided by the companies to promote the use of E-wallet among consumers such as coupons, lucrative offers, gift cards, cash backs as the market still holds the potential to expand in future.

### 2.1 Perceived risk

Perceived risk can be defined as an uncertainty in a purchase transaction (Im et al., 2008). Bauer (1960) illustrated perceived risk as a sense of loss which involves positive or some negative outcomes, but according to Stone & Gronhaug (1993), Tanadi et al., (2015) perceived risk in consumer behavior is more focused on negative outcomes. Kassim & Ramayah (2015) stated that perceived risk is a multi-dimensional construct that may vary according to a certain product or service. When we study online payments, perceived risk has certain other dimensions such as psychological risk, financial risk, performance risk, time oblique convenience risk (Forsythe & Shi, 2003).

In this study, perceived risk is identified as a condition where customers are unclear about the spread of Covid-19 through physical cash transfer. Therefore, here the risk associated is more connected to the cognitive risk, the risk of being infected by novel corona-virus through physical exchange of money, along with the financial risk of an increase in the number of cyber fraud cases.

### 2.2 Perceived usefulness

Riquelme & Rios (2010) suggest that mobile payments can be adopted as a new alternative means for customer perceived advantages or usefulness. According to Hampshire (2017); Lu et al. (2005), perceived trust and risk at the key factors to determine the mobile payment adoption which has significant effect of perceived usefulness.

Haderi (2014); Hai & Kazmi (2015) discussed that perceived usefulness as a fundamental factor in the essential use of technology, government played a vital role in encouraging E-wallet usage especially during Covid-19 crisis, which has a positive effect on customers in terms of digital payments.

### 2.3 Perceived government support

The literature suggests perceived risks are influenced by technological systems, but to a certain extent they are directly correlated with government support. The government plays a vital role in the times of facing a certain risk (Baker &

Moss, 2009). It acts as a regulator with the primary duty to avert the negative outcomes of that risk towards its citizens. Sheikh et al. (2020) discussed that the Ministry *of health*, as a representative of government, plays the role of "*de jure*" meaning "responsible for its people's health".

Brown (2020); Huang (2020) suggested that in relation to E-wallets, government support can be in the area of network infrastructure, speedy access, security, policy packages in digital transactions, to minimize the physical money transaction and to use more E-transactions. Thus, this study evaluates the role of government support towards influencing consumers to use E-wallet at the time of Covid-19 outbreak.

### 2.4 Intention to use E-wallets

Davis et al. (1989) argued that a perceived usefulness is the extent of confidence which a customer considers by using a specific process that he can improve performance. E-wallet is a platform which was established as a most effective method for payment during Covid-19 crisis. It also helped as a support system for curbing the risk of spreading risk of Covid-19. Several studies have found that to assess the intention of using E-wallet, perceived usefulness can be a strong predictor, Aji & Dharmmesta (2019) also to explain the user acceptance level of such technology (Venkatesh & Bala, 2008).

### 3. OBJECTIVES OF THE STUDY

1. To identify the factors influencing intention to use E-wallets during Covid-19 pandemic.

2. To understand the relationship of age and factors influencing intention to use E-wallets during Covid-19 pandemic.

### 4. RESEARCH METHODOLOGY

The study is based on 281 responses considered for analysis. The 18 responses were rejected due to missing values or inappropriate responses. Total 299-targeted population of North India submitted the responses on questionnaire. The items of the

study were adopted from validated scales. The questionnaire has two sections; Section A consists of information related to demographics whereas section B is based on 5 point Likert scale ranging from (5) Strongly Agree to (1) Strongly disagree. Perceived Risk is measured from items adopted by Olya & Al-Ansi (2018). Perceived usefulness was adopted by the TAM's model from Davis et al. (1989). Further, Aji et al. (2020) suggested items to measure the intention to use E-wallets in future especially during Covid-19 pandemic. The fourth factor, government support is a major factor as during Covid-19 outbreak stated and people were majorly dependent on the support and services provided by Covid-19. Also the aim to digitalize India played a major role in adoption of E-wallets, so this was assumed as perceived support from the government of the country. The sampling was a snowball sampling technique. Online tools and social media platforms were used for collecting responses. Further, editing and coding was done. For analysis SPSS 21.0 was used. Cronbach Alpha was used to assess the reliability of scale and factors derived. "The study in general, reliabilities less than 0.60 are considered poor, those in the 0.70 range, acceptable and those over 0.8 good" (Sekaran, 2006). The tests applied are exploratory factor analysis (EFA) to identify the factors affecting adoption of E-wallet and chi-square to understand the existence of relationship between age and factors affecting E-wallet.

### 5. DATA ANALYSIS

The analysis of data has been divided into three sections. The section 5.1 is majorly about the demographic profile of respondents. The section 5.2 tests the reliability of scale for the current study. The section 5.3 briefs about objective wise analysis.

### 5.1 Respondents profile

As per the Table 1, Age group 20-25 years is 27.4 % of the total responses whereas, age group 25-30 years have 45.2% of the total respondents. Further, there are 66 respondents from the 30-35 age group

*Table 1. Demographics of Respondents*

| Variables | | Frequency | Percentage |
|---|---|---|---|
| **Age** | 20-25 | 77 | 27.4 |
| | 25-30 | 127 | 45.2 |
| | 30-35 | 66 | 23.5 |
| | 35-40 | 11 | 3.9 |
| | **Total** | **281** | **100.0** |
| **Gender** | Female | 133 | 47.3 |
| | Male | 148 | 52.7 |
| | **Total** | **281** | **100.0** |
| **Course** | Under Graduate | 136 | 48.4 |
| | Post Graduate | 122 | 43.4 |
| | Others | 23 | 8.2 |
| | **Total** | **281** | **100.0** |
| **Awareness** | Aware and using M-Wallets | 193 | 68.6 |
| | Aware but not using M-Wallets | 76 | 27.0 |
| | Unaware | 12 | 4.4 |
| | **Total** | **281** | **100** |

framing 23.5% of the total proportion. The age group of 35-40 years of age carries 3.9% of the total number of respondents. Table 1, further reflects that out of 281 respondents, 47.3% respondents are females and 52.7% are males. On the education front, 48.4% respondents are from under graduate courses whereas 43.4% respondents are post grads. The Table 1 also depicts that 4.4% respondents are unaware about E-wallets, whereas 27% are aware but not using it. However, 68.6% are aware and using E-wallets

### 5.2 Reliability analysis

The present study has adopted Alpha (Cronbach's) to carry out the reliability analysis (Cronbach's, 1951). Cronbach's alpha is majorly used to test the reliability of instruments (Pallant, 2007; Green et al., 2000; Hair et al., 1998). Many studies have been done so far based on Cronbach's alpha (Dabholkar, Thorpe & Rentz, 1996; Sureshchandar, Rajendran & Anantharaman, 2002, Jabnoun & Khalifa, 2005; Akbaba, 2006; Chowdhary & Prakash, 2007; Caro & Garcia,

2007). The coefficient of Cronbach's alpha lies between 0 to 1. As per the prevailing and suggested studies, a minimum of 0.6 reflects reliability whereas 0.7 above is considered a high level of internal reliability (Hair et al., 1998; Nunnally, 1978).

*Table 2.  Reliability statistics*

| Cronbach's Alpha | No. of Items |
|:---:|:---:|
| .766 | 17 |

The Cronbach' Alpha test was used for testing the reliability of scale. Table 2 depicts the value of *Reliability Statistics* as 0.766, which is above the threshold of 0.6. Thus, the scale used is reliable for the study conducted and is considered as highly reliable.

## 5.3 Objective wise analysis

**Objective 1. To identify the factors influencing intention to use e-wallets during Covid-19 pandemic.**

Exploratory Factor Analysis was performed in order to examine the factors influencing usage of mobile wallets. KMO and Bartlett's Test gave satisfactory results as 0.803 for 17 items. Thus, it reflects that the data set is highly acceptable and suitable for factor analysis. (Kim & Mueller, 1978). A significant. value of 0.00 indicates that the data does not produce an identity matrix (George & Mallery, 2000). Bartlett's test of sphericity also shows a significant level and hence the instrument was apt for further analysis. The communalities were derived for 17 items.

Communalities values which are relatively large i.e. greater than 0.5 are normally considered or suggested appropriate (Stewart, 1981) for further analysis.

The rotated component matrix yielded four factors namely Perceived Ease of Usage (PEU), Perceived Risk (PR), Perceived Government Support (PGS) and Intention for future usage (PIFU). The items having factor loading score less than 0.5 were rejected. In total, 4 items were rejected due to less

factor loading namely (PGS4). During Covid-19, government controls E-wallets transactional operations, (PEU4) During Covid-19, using E-wallet would improve my productivity, (PR3) I am not comfortable making payment using cash and (IFU3) I prefer using E-wallets always.  The factor loading for the rest of the 13 items are above 0.5.

*Table 3. KMO and Bartlett's test*

| Kaiser-Meyer-Olkin Measure of Sampling Adequacy | | .728 |
|---|---|:---:|
| Bartlett's Test of Sphericity | Approx. Chi-Square | 1975.992 |
| | df | 78 |
| | sig | .000 |

As per Table 3, the **KMO value for 13 items resulted as 0.728** and sig value .000 is acceptable for further study. As per Table 4, the cumulative variance resulted as 75.11% and reliability value derived through Cronbach Alpha is also above 0.7.

*Table 4. Exploratory factor analysis*

| Item | Perceived Ease of Usage (PEU) | Perceived Government Support (PGS) | Perceived Risk (PR) | Intention for future usage (PIFU) |
|---|:---:|:---:|:---:|:---:|
| PEU1 | 0.73 | | | |
| PEU2 | 0.82 | | | |
| PEU3 | 0.82 | | | |
| PEU5 | 0.80 | | | |
| PGS1 | | 0.81 | | |
| PGS2 | | 0.91 | | |
| PGS3 | | 0.94 | | |
| PR1 | | | 0.79 | |
| PR2 | | | 0.82 | |
| PR4 | | | 0.81 | |
| PR5 | | | 0.55 | |
| IFU1 | | | | 0.89 |
| IFU2 | | | | 0.90 |
| Eigen Value | 3.17 | 2.66 | 2.97 | 1.79 |
| Expected Variance | 22.32 | 19.67 | 18.75 | 14.38 |
| Cumulative Variance | 22.32 | 41.99 | 60.73 | 75.11 |
| Cronbach α | 0.79 | 0.71 | 0.81 | 0.76 |

**Objective 2. To understand the relationship between age and factors influencing intention to use e-wallets during Covid-19 pandemic.**

The study further intends to understand the relationship between factors influencing intention to use E-wallets during Covid-19 pandemic.

The objective is achieved by framing four hypotheses namely: -

H1: There is a significant relationship between Age and Perceived Ease of Usage offered by E-wallets.

H2: There is a significant relationship between Age and Perceived Risk of E-wallets.

H3: There is a significant relationship between Age and Perceived Government Support of E-wallets.

H4: There is a significant relationship between age and Intention for Future Usage of E-wallets.

To test the Hypothesis, Pearson Chi-Square test is used. The test is analyzed by the fundamental rule of value of p and $\alpha$ where $\alpha$ = 0.05. If p $<\alpha$, null hypothesis is rejected and if p$> \alpha$, null hypothesis is accepted.

$H1_0$: There is no significant relationship between Age and Perceived Ease of Usage Offered by E-wallets

$H1_A$: There is significant relationship between Age and Perceived Ease of Usage Offered by E-wallets

*Table 5. Chi-Square tests*

|  | Value | df | Asymp. Sig. (2-sided) |
|---|---|---|---|
| Person Chi-Square | 56.210 | 36 | .017 |
| Likelihood Ratio | 64.329 | 36 | .003 |
| Linear-by-Linear Association | 2.432 | 1 | .119 |
| N of Valid Class | 281 |  |  |

a. 40 cells (76.9%) have expected count less than 5. The minimum expected count is .05

The above Table 5 reflects that the p value (p=.017) is lesser than significance level of the study ($\alpha$= 0.05), thus null hypothesis is rejected. The Pearson Chi-Square test results the acceptance of alternate hypothesis i.e. it states that

there is a significant association between age and perceived ease of usage offered by E-wallets. Thus, users intends to use e-wallets according to their understanding of technology.

*$H1_A$: We reject the null hypothesis since the value of p $<\alpha$. Thus, there is significant relationship between Age and Perceived Ease of Usage Offered by E-wallets*

$H2_0$: There is no significant relationship between Age and Perceived Risk of E-wallet

$H2_A$: There is significant relationship between Age and Perceived Risk of E-wallet

*Table 6. Chi-Square tests*

|  | Value | df | Asymp. Sig. (2-sided) |
|---|---|---|---|
| Person Chi-Square | 29.441 | 33 | .645 |
| Likelihood Ratio | 36.173 | 33 | .323 |
| Linear-by-Linear Association | .000 | 1 | .988 |
| N of Valid Class | 281 |  |  |

a. 40 cells (88.3%) have expected count less than 5. The minimum expected count is .05

The above Table 6, reflects that the p value (p=.645) is greater than significance level of the study ($\alpha$= 0.05), thus null hypothesis is not rejected at 5% level of significance. Thus, the Pearson Chi-Square test results suggest that there is no significant relationship between age and perceived risk of e-wallet. Hence, no significant difference was found among the users concerning age found on risk factor that influences consumer intention to use an e-wallet.

*$H2o$: We accept the NULL hypothesis since the value of p $>\alpha$. Thus, we can conclude that there is no significant relationship between Age and Perceived Risk of E-wallets.*

$H3_0$: There is no significant relationship between Age and Perceived Government Support of E-wallets

$H3_A$: There is significant relationship between Age and Perceived Government Support of E-wallet.

### Table 7. Chi-Square tests

|  | Value | df | Asymp. Sig. (2-sided) |
|---|---|---|---|
| Person Chi-Square | 59.030 | 63 | .619 |
| Likelihood Ratio | 59.653 | 63 | .596 |
| Linear-by-Linear Association | .492 | 1 | .483 |
| N of Valid Class | 281 | | |

a. 78 cells (88.6%) have expected count less than 5. The minimum expected count is .05

The above Table 7, reflects that the p value (p=.619) is greater than significance level of the study (α= 0.05), thus null hypothesis is not rejected at 5% level of significance. Thus, the Pearson Chi-Square test results suggest that there is no significant relationship between age and Perceived Government Support of E-wallets. Hence, age factor is not related to perceived support of government.

*H3o: We accept the NULL hypothesis since the value of p >α. Thus, we can conclude that there is no significant relationship between Age and Perceived Government Support of E-wallets.*

H4o: There is no significant relationship between Age and Intention for future usage of E-wallets.

H4$_A$: There is a significant relationship between Age and Intention for future usage of E-wallets.

### Table 8. Chi-Square tests

|  | Value | df | Asymp. Sig. (2-sided) |
|---|---|---|---|
| Person Chi-Square | 24.195 | 21 | .284 |
| Likelihood Ratio | 26.099 | 21 | .203 |
| Linear-by-Linear Association | 2.820 | 1 | .093 |
| N of Valid Class | 281 | | |

a. 40 cells (88.3%) have expected count less than 5. The minimum expected count is .05

The above Table 8, reflects that the p value (p=.284) is greater than significance level of the study (α= 0.05), thus null hypothesis is not rejected at 5% level of significance. Thus, the Pearson Chi-Square test results suggest that there is no

significant relationship between age and Intention for future usage of E-wallets.However, continued use of e-wallet contributes to individuals' daily lives through time- and cost-effective financial transactions (Nizam et al., 2018). It also brings more hygiene life to the people during the ongoing Covid-19 pandemic and helps governments to control the Covid-19 pandemic as physical wallet and cash may increase the chance of covid transmission (Singh et al., 2020).

*H4o: We accept the NULL hypothesis since the value of p >α. Thus, we can conclude that there is no significant relationship between Age and Intention for future usage of E-wallet.*

## 6. DISCUSSION

The current study is an attempt to contribute to various existing theories to understand the E-wallet usage intention by the customers during Covid-19 crisis. The study is aimed at exploring the various direct or indirect relationship between the perceived risk, security/ safety awareness, age, government's support towards E-wallet users especially during covert 19 crisis, to avoid the spread of the novel corona-virus by physical cash transfer. The present study adds an imperative knowledge to the literature of E-wallet showing a positive adoption of E-wallets by consumers during pandemic. In the study, various statistical test results prove that age and perceived ease of usage offered by E-wallet have a positive significant relation.

Various government measures help in spreading the awareness and importance of E-wallet and encourage the maximum use of e-transactions, especially during Covid-19 crisis. With the above government support, the e-transactions can now take place in every corner of the country to curb the possible transmission of the virus through physical money transfer. In the study it can be clearly stated, the perceived risk of Covid-19 significantly affects user intention to use E-wallet. Means the pandemic situation has discouraged the intention of users to use physical money and use more of e-transfer.

The E-wallet performance specifies that the user require convenience, speed, safety and security that should be the major areas to be focused by the

service providers. To increase the market-share of E-wallet users, even at post-pandemic time, the service providers must design improved service systems in terms of user friendly, high security standards, and accessibility.

To conclude, E-wallet is a valuable platform to perform various electronic cash transfer transactions to break the chain of COVID-19 virus and to abide by the laws of social distancing and zero physical contact. It is also a proven escape route to stand in long queues for payment and physical transfer of money. RBI along with the government must take special initiatives to ensure high security measures, spread the awareness of E-wallet in remote areas also, and lastly to encourage the habit of regular users to use E-wallet in everyday life rather than only in Covid-19 crisis times.

## 7. LIMITATIONS AND FUTURE SCOPE OF STUDY

The study was only limited to a sample size of 281 respondents. Since, an online survey questionnaire method was applied in the study to collect primary data; the various limitations in respect to online survey will be applicable to this empirical study as well. The snowball sampling technique has been adopted for selecting the respondents. Therefore, limitations associated with snowball sampling are also applicable to the study. Further, the present study is only applicable to North Indian e- wallet users.

A quantitative comparative study may be conducted among various age groups, gender, income groups to evaluate the e-user intention according to demographic segments. Further, a study can also be conducted to understand and measure the consumer behavior intention with regard to E-wallet in post Covid-19 period and the subsequent government measures taken to promote Digital India initiative. The customer experience of E-wallet users can also be studied, as a basis of comparison among different digital payment modes available.

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