**Study on the perception towards eWallet security during the COVID-19 Pandemic**

**Project work synopsis submitted in partial fulfilment of the requirements for the award of the Degree of**

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**Introduction of the project**

Digital payment is a way of payment that is made through digital modes. In digital payments, payer and payee both use digital modes to send and receive money. It is also called electronic payment. Digital payment is an electronic service for storing payment instrument data as payment tools, which can also save funds, speed up payments, ease of use, efficiency, effectiveness, transparency, and accessibility (Wu et al., 2016). The advantage of using digital payment, according to Sharma et al. (2020) and Venkatesh et al. (2012).

Coronavirus Pandemic constrained individuals to utilize advanced installment applications. There is an uncommon flood in the use of such applications. Not all individuals are agreeable and surprisingly able to utilize eWallets.

COVID-19 Pandemic forced people to use digital payment applications. There is an unprecedented surge in the usage of such applications. Not all people are comfortable and even willing to use eWallets. However, they are compelled due to the outbreak of the CORONA virus. In this context, we attempted to capture the comfortability and security concerns of eWallet users and the influence of demographic variables like gender and income on it. We found that female users have more concerned about eWallet security than male users.

This study showed that people from the middle-income group are more concerned about the security of eWallets than the people from the lower-income group.

Our findings suggest that gender and income have no influence on comfortability in using eWallet. This result is inconsistent with our reasoning about the relationship between income and risk propensity. A separate detailed study needs to be carried out to investigate the relationship between demographics and comfortability using digital payment technology.

This study concludes that security concerns prevailed irrespective of the forceful adoption of eWallets due to the COVID-19 pandemic.

Irrespective of the forceful adoption of eWallets due to the COVID-19 pandemic, users continue to concern about the security of their eWallet transactions. Cyber-attacks not only increased but also crossed the figure of the total number of registered cases during 2019, within just eight months in 2020. This study showed that irrespective of the forceful adoption; security concerns are prevailing and on rising. This is an alarm to developers and service providers that, although the use of eWallets increased exponentially during this COVID-19 pandemic, it is a forceful adoption and not willful. They should not get deceived by a rise in eWallet users and must endeavor to improve the security of eWallets otherwise we may experience a sharp decline in eWallet users once the COVID-19 pandemic is over.

The COVID-19 pandemic has fundamentally changed the world as we know it, especially consumer behavior. Users turn to digital transactions for fear of making physical contact when transacting. However, security issues and user convenience are obstacles to making users adopt digital payments.

Covid-19 pandemic carried out limited conventional community activities due to maintaining distance, recommendations to stay at home, and carrying out activities virtually by utilizing various technologies. Advances in technology and information systems affect the individual’s internal information and the entire business organization (Davis et al., 2020). Based on research by (Ha et al., 2021; Musyaffi & Muna, 2020; Sudarsono et al., 2020), Internet users in South East Asia are increasing rapidly. New users in 2020 increased by 40 million users. In addition to new online users, Covid-19 caused an acceleration of digital consumption as users tried new digital services for the first time.

**Statement of the problem**

This has posed serious challenges and there are increasing concerns about eWallet security. This pandemic has forced a premature surge in eWallet usage. The socio-economic environment and the peoples’ mindset in the country yet not ready for this kind of rise in digital transactions.

Issues concerning security have gotten impressive scholastic consideration lately and network safety has turned into a first concern for some legislatures, associations, and businesses. Shockingly, the consideration committed to digital wrongdoing issues has zeroed in essentially on the specialized component of PC wrongdoing.

**Research Questions**

1. What are the influencing factors that would determine the security and comfort in using eWallets.
2. Does the middle-income group in India is more risk intolerant than the lower-income group while higher and lower-income groups are indifferent?
3. To capture how much people are comfortable using eWallet?
4. Whether they are concerned about the security of eWallet transactions.
5. Whether demographics influence “comfort” and “security” concerns regarding use of eWallets.

**Need for the study**

(COVID-19) pandemic constrained cross country lockdown in India. During the time of lockdown use of eWallet expanded by 44%. With the expanded use of advanced exchanges, digital wrongdoing assaults additionally expanded as much as by 86%. The financial climate and the people groups' outlook in the country yet not prepared for this sort of ascend in advanced exchanges. The reason for this review is to catch "security concern" and "agreeableness" as to utilizing eWallet during the COVID-19 pandemic circumstance. The concentrate additionally researched the impact of socioeconomics, for example, sex and pay on "security concern" and "agreeableness" in utilizing eWallet.

**Review of literature – Minimum 25 Nos.**

Black et. all (2001) conducted qualitative exploratory research to analyse the customer perception towards internet banking facilities provided by several banks in recent days. The study examined that education, gender and age play a crucial in the usage of online banking. The study recommended that up gradation of technical skills will increase the usage of internet banking.

Saluja and Sohi (2006) in his research study analysed the customers’ perception on preference of ebanking. He focused on the major barriers of e-banking like hacking problems, legal and security issues, etc.

Safeena et.al, (2011) in their research study examined the crucial factors that influence the adoption of online banking by potential customers in India. They also analysed the advantages and security issues related to online banking.

Paul (2013) conducted a survey on customers of various commercial banks of Odisha. She investigated on the prevailing technological rebellion that altered the traditional banking services to e-banking.

Hakkeem and Sha (2015) in their research work mentioned that customer satisfaction is highly influenced by the awareness and convenience of online banking services. So, banks need to improve their facilities to retain customer loyalty on their services.

Khanna and Gupta (2015) in their research study explained the dependence of factors like technological acceptability, safety, user friendliness, etc. on the demographic profile of the population. Increasing the efficiency of marketing decisions can be maintained by means of such demographic factors.

A.Samsunisa (2015) in his study observed that customer perception of online banking services depends on the age group of customers. He also recommended that the banks must focus on all such age groups for the advancement of banking services.

Nag and Gilitwala (2019) investigated the influence of various factors on intention to use eWallets, in Bangkok, Thailand. They studied five factors: “perceived usefulness, perceived ease of use, security/privacy confidence, social influence and trustworthiness.” The study reported a moderate positive correlation between “security” and “intention to use” eWallets.

LAI (2016) argued that “intention to use” of ePayment system was significantly influenced by “security,” design, “perceived usefulness” and “perceived ease of use.” He reported that “security” positively influence users’ “intention to use” the ePayment system.

Kim et al. (2010) found that “perceived security” has a positive impact on “perceived trust” and on the usage of ePayment systems.

Wijayanthi (2019) reported that “perceived trust” and “perceived usefulness” influence the behavioral “intention to use” e-wallet among Indonesian young consumers.

Karim et al. (2020) used an extended “technology acceptance model (TAM)” to investigate the factors influencing the use of eWallets among Malaysian youths. Their findings confirmed that “perceived usefulness, perceived ease of use, privacy and security” have a significant positive influence on “behavioral intention to use an e-wallet.”

Soodan and Rana (2020) studied factors influencing the adoption of eWallets. They reported that “hedonic motivation, perceived security, general privacy, facilitating conditions, performance expectancy, perceived savings and social influence and price value in this order, influence the intention to adopt e-wallets.” They advocated to modify existing services to maintain the customers’ “privacy and security.”

Brahmbhatt (2018) surveyed the customers’ perceptions regarding E-wallets in Ahmedabad city. The study reported that most of the customers were aware of the eWallets and were satisfied with the service provided by eWallet providers. The study reported that customers were concerned about the “security” of transactions through eWallets.

Mallat (2007) investigated the consumer adoption of mobile payments. She argued that the relative advantages specified in adoption theories were different for mobile payments which include “independence of time and place, availability, possibilities for remote payments and queue avoidance.” She reported certain barriers to adoption such as “premium pricing, complexity, a lack of critical mass and perceived risks.”

Grable (2000) reported that financial risk tolerance was associated with demographics of respondents such as gender, income and education. According to this study, men are more risk-tolerant than women and high-income groups are more risk-tolerant than lower-income groups.

Kindberg et al. (2004) argued that along with “trust and security,” “ease of use, convenience and/or social factors” are equally important while designing the ePayment technology.

URS (2015) argued that “information security is an essential requirement for any efficient and effective e-Payment system.”

Jung and Jang (2014) argued that the eWallet application requires to be secure and reliable. They cautioned against the vulnerability of the “Internet of Things (IoT)” environment that allows moving both data and the computing environment along with the users. They proposed a secure and reliable eWallet application using a smart solid-state drive (SSD).

URS B.A. (2015) emphasized security and malicious applications targeting online banking transactions. The most common threats, he reported were, “worms, trojans, viruses, phishing, pharming, spoofing, man-in-the-middle, denial of service attack, transaction poisoning and spamming.” He argued that digital payments should have reliable and secure methods for authentication of their customers. This would according to him, reduce the inherent risks.

Salodkar et al. (2015) studied security concerns and proposed an eWallet application. They claimed that their proposed eWallet application would ensure a secure, fast and futuristic way of transactions.

Nachappa and Lathesh (2018) argued that people are more emphasizing the “security,” confidential personal financial information such as bank’s balance details, details of license and authorization details. They claimed that eWallets would be best to offer the security of peoples’ information.

Octavian (2012) reported “security and feasibility” as a major concern where the “security systems must restrain the possibility of the frauds within the electronic environment.” While the “feasibility systems must be accessible and available at any moment in time.” He argued that the electronic wallet had no commercial success in the recent past because of the difficulties in using them.

**Research gap**

Demographic variable such as age, education, occupation, and area of residence (rural or urban) need to be investigated with the inclusion of rural or urban populations.

**Tentative Topic**

Study on the perception towards eWallet security during the COVID-19 Pandemic.

**Research Objectives**

* The objectives of this study is to capture “security concern” and “comfortability” in regard to using eWallet during the COVID-19 pandemic situation.
* The study further investigated the influence of demographics like gender and income on security concern and comfortability in using eWallet.
* Comfortability differs significantly among different income groups.

**Scope of the research**

The study was confined to security concerns and comfortability of eWallets and the influence of “gender”, “income”, “age”, “education”, “occupation”, and “area of residence (rural or urban)” on it. The respondents were from Bangalore, a metropolitan city in India.

The study attempted to capture perceived security concerns and comfortability of users and not attempted to investigate technical issues related to security and comfort.

**Methodology**

**Research design**

To test the research, a web-based questionnaire with two parts was developed. The first part focused on the demographic data of the participants. The second part consisted of items that were used to measure the security constructs. The measures were rated using a five-point Likert scale ranging from 1 “strongly disagree” to 5 “strongly agree”. The measures of the constructs were taken from the literature and slightly modified to fit the context of this study. Measures of consumer attitude and satisfaction were adapted from studies.

**Sampling Plan- Sampling Techniques, Population Size, Sample Size**

The sampling technique used for this research is empirical sampling and purposive sampling method. The population for this research is all the individual participant in India. The Sampling frame includes individual participant from Bangalore only. The sample size used for the study is 100.

**Data Collection Details**

As mentioned, this study used a survey method based on a questionnaire in a structured and systematic approach. The questionnaire was delivered to participants via email, SMS, social media platforms. The distribution of the questionnaires was based on a sampling technique called snowball sampling or chain-referral sampling.

**Data Collection Instruments**

The study used primary sources of data. Data was collected through the use of semi structured questionnaires. Secondary data was also used in this study. Secondary data was obtained from internet, journals and newspapers.

**Plan of Analysis with suggested tools**

Correlation, Regression, ANOVA, Chi-square

**Statistical Package**

Statistical Package for Social Science (SPSS).

MS-Excel.

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