

PROJECT ON

STUDY ON THE PERCEPTION TOWARDS EWALLET SECURITY DURING THE COVID-19 PANDEMIC

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INTRODUCTION OF THE PROJECT

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

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 specialize component of PC wrongdoing.

RESEARCH QUESTION

- I. What are the influencing factors that would determine the security and comfort in using eWallets.
- II. To capture how much people are comfortable using eWallet?
- III. Whether they are concerned about the security of eWallet transactions.
- IV. Whether demographics influence “comfort” and “security” concerns regarding use of eWallets.

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.

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

Sr. no.	Author, year	Name of research paper
1.	Jung, I.Y. and Jang, G.-J. (2014)	"A secure and reliable e-Wallet using a smart SSD", Life Science Journal, Vol. 11 No. 7.
2..	Kim, C., Tao, W., Shin, N. and Kim, K.S. (2010)	"An empirical study of customers' perceptions of security and trust in e-payment systems", Electronic Commerce Research and Applications, Vol. 9 No. 1
3.	Desai, R.D. (2020)	"Cybercrime in India surges amidst coronavirus lockdown", Retrieved May 27, 2020, from A website of Forbes, available at: www.forbes.com/sites/ronakdesai/2020/05/14/cybercrime-in-india-surges-amidst-coronavirus-lockdown/#232e2aa2392e

REVIEW OF LITERATURE

Sr. no.	Author, year	Name of research paper
4.	Kohli, R. (2018)	"Women and banking: India's financial inclusion suffers from a gender gap", Financial Express. INDIA: Indian Express Group. Retrieved May 21, 2020, available at: www.financialexpress.com/opinion/women-banking-indias-financial-inclusion-suffers-from-a-gender-gap/1173467/
5.	Lai, P.C. (2016)	"Design and security impact on consumers' intention to use single platform E-payment", Interdisciplinary Information Sciences, Vol. 22 No. 1, pp. 111-122, doi: 10.4036/iis.2016.r.05.
6.	Madaan, N. (2020)	"Pune: cybercrime complaints go past 2019 tally in 8 months", The Times of India, Bennett, Coleman and Co. Ltd, Retrieved October 6, 2020, available at: https://timesofindia.indiatimes.com/city/pune/cybercrime-complaints-go-past-2019-tally-in-8-months/articleshow/77643486.cms

REVIEW OF LITERATURE

Sr. no.	Author, year	Name of research paper
7.	Mehta, R. (2020)	"Cyber criminals stole Rs 1.2 trillion from Indians in 2019: Survey", The Economic Times, Bennett, Coleman and Co. Ltd., available at: https://economictimes.indiatimes.com/wealth/personal-finance-news/cyber-criminals-stole-rs-1-2-trillion-from-indians-in-2019-survey/articleshow/75093578.cms
8.	Nachappa, M.N. and Lathesh, C.K. (2018)	"Optimized e-Transaction to have a secure safe: EWallet", IJSET - International Journal of Innovative Science, Engineering and Technology, Vol. 5 No. 9.
9.	Nag, K.A. and Gilitwala, B. (2019)	"E-Wallet- factors affecting its intention to use", International Journal of Recent Technology and Engineering (IJRTE), Vol. 8 No. 4, doi: 10.35940/ijrte.D6756.118419.

REVIEW OF LITERATURE

Sr. no.	Author, year	Name of research paper
10.	PTI (2020)	42% Indians have increased use of digital payments during COVID-19 lockdown: Report, Retrieved April 20, 2020, from Website of The New Indian Express, available at: www.newindianexpress.com/business/2020/apr/14/42-per-cent-indians-have-increased-useof-digital-payments-during-covid-19-lockdown-report-2130059.html
11.	Soodan, V. and Rana, A. (2020)	"Modeling customers' intention to use e-wallet in a developing nation: extending UTAUT2 with security, privacy and savings", Journal of Electronic Commerce in Organizations, Vol. 18 No. 1, pp. 89-114, doi: 10.4018/JECO.2020010105.
12.	Wijayanthi, I.M. (2019)	"Behavioral intention of young consumers towards E-Wallet adoption: an empirical study among Indonesian users", Russian Journal of Agricultural and Socio-Economic Sciences, Vol. 85 No. 1, pp. 79-93, doi: 10.18551/rjoas.2019-01.09.

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.

SCOPE OF THE RESEARCH

- The study is 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.

LIMITATION OF THE STUDY

- This study surveyed participants from a small geographic urban area i.e., Bangalore. The sampling method used was purposive sampling which does not ensure the representativeness of the population. Therefore, the findings of this study cannot be generalized beyond a small population aforementioned. And also, I have a very limited time period.

METHODOLOGY

- **RESEARCH HYPOTHESIS**

It is indeed essential to emphasize the fact that the Indian culture is different from the countries where previous research was conducted. The researchers predicted that the familiarity and economic benefits of developing the usage of ewallet during pandemic and covering the essentials aspects of security and comfort will definitely prove to be beneficial in the urban and rural areas. Therefore, the following hypothesis are adopted:

METHODOLOGY

- H1. There is a significant difference in security concerns between male and female.
- H2. There is a significant difference between Male and Female in their comfort using wallet transactions.
- H3. Security concerns differ significantly among different income groups.
- H4. Comfortability differs significantly among different income groups.

METHODOLOGY

- SAMPLING PLAN - SAMPLING TECHNIQUE, TARGET POPULATION, SAMPLING FRAME, 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 345.

- 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.

METHODOLOGY

- **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**

Regression, ANOVA.

- **STATISTICAL PACKAGE**

Statistical Package for Social Science (SPSS), MS-Excel.

ANALYSIS & FINDINGS

- As observed in model coefficient table, independent variable such as NOUTG3 and U1 are having less significance values than 0.05. So, these independent variables have an effect on dependent variable SEC1.
- As observed in model coefficient table, independent variable such as US2, R1, U1, U2, PUR6 are having less significance values than 0.05. So, these independent variables have an effect on dependent variable SEC2.
- As observed in model coefficient table, independent variable such as PR3, U1, PUR6 are having less significance values than 0.05. So, these independent variables have an effect on dependent variable SEC3.
- As observed in model coefficient table, independent variable such as PR3, R1, PUR2, SP1, OA1, OA2 are having less significance values than 0.05. So, these independent variables have an effect on dependent variable SEC4.

ANALYSIS & FINDINGS

- As observed in model coefficient table, independent variable such as PR, PR2, SP1, OA1, OA2 are having less significance values than 0.05. So, these independent variables have an effect on dependent variable SEC5.
- As observed in model coefficient table, independent variable such as PR1, US2, SEC4, SE5, PUR1 are having less significance values than 0.05. So, these independent variables have an effect on dependent variable AGE.
- As observed in model coefficient table, independent variable such as NOUTG2, OB1, PUR2, PUR3, PUR6 are having less significance values than 0.05. So, these independent variables have an effect on dependent variable GENDER.
- As observed in model coefficient table, independent variable such as PUR2, FUN1, R1, SEC4, OA3 are having less significance values than 0.05. So, these independent variables have an effect on dependent variable QUALIFICATION.

ANALYSIS & FINDINGS

- As observed in model coefficient table, independent variable such as US2, PUR1, OA3 are having less significance values than 0.05. So, these independent variables have an effect on dependent variable OCCUPATION.
- As observed in model coefficient table, independent variable such as PR1, US2, PUR1, OA3, OA5 are having less significance values than 0.05. So, these independent variables have an effect on dependent variable INCOME.
- As observed in model coefficient table, independent variable such as PR1, SEC1, PUR4, OA1 are having less significance values than 0.05. So, these independent variables have an effect on dependent variable RESIDENCE.

RECOMMENDATION OR SUGGESTION

- The effect of COVID-19 on the computerized economy has been mind boggling and diverse. The expanded reception in the present moment is probably going to speed up the supported shift toward computerized installments. Additionally, the pandemic has uncovered new viewpoints and open doors for Indian organizations and people, which must be promoted upon, by due deftness and adaptability to expected change.
- People outperformed starting agreeableness obstructions to take on advanced on the grounds that the plague and its limitation of development filled in as the first motivator, to consider, in metropolitan as well as provincial regions. Provincial economies were constrained to consider the AePS (Aadhar enabled payment systems) system which prompted an extraordinary ascent in the exchange volumes post lockdowns.

CONCLUSION

- The descending effect of COVID-19 on the installment scene has been significant and critical, yet not hopeless. Components in the installment biological system are generally versatile to disturbance and least ward on actual framework have had the option to endure, relieve and all things considered far as underwrite the emergency, making an inescapable danger advantageous for them.
- The pandemic has constrained people as well as associations to rethink their installment structure and framework in order to join contemplations of disturbance alleviation and coherence arranging. Additionally, the pandemic has placed a focus on inborn imperfections delivered by unbending nature or resoluteness of being excessively dependent on cash as a sole technique for installment, for some inheritance players in the business as well as individual purchasers.

ROUGH

ROUGH

PENDING WORK TO ADD

From anish's msg - left	From PM's ppt - left	From pk main report - left
Analysis & findings	Findings	Chapter 04
Conclusion	Recommendation = suggestion	Chapter 05
	Conclusion	

DEMOGRAPHIC VARIABLES

Variables	Particulars	No. of respondents	Percentage (%)
Age	18 - 30 years	177	51.3%
	31 - 40 years	144	41.7%
	41 – 50 years	12	3.5%
	51 – 60 years	12	3.5%
	Total	345	100%
Gender	Male	213	61.7%
	Female	132	38.3%
	Total	345	100%
Residence	Rural	66	19.1%
	Urban	279	80.9%
	Total	345	100%

Variables	Particulars	No. of respondents	Percentage (%)
Educational Qualification	10 th	01	0.3%
	12 th	23	6.7%
	Under graduate	200	58%
	Post graduate	117	33.9%
	Ph.D	04	1.2%
Occupation	Total	345	100%
	Student	149	43.2%
	Housewife	30	8.7%
	Employed	138	40%
	Self-employed	26	7.5%
Income	Service	02	0.6%
	Total	345	100%
	0 - 2,00,000	147	42.5%
	2,00,001 - 4,00,000	33	9.6%
	4,00,001 - 6,00,000	82	23.8%
Income	6,00,001 and above	83	24.1%
	Total	345	100%

DECLARED VARIABLES

Sr. no. :-	Variable Name	Variable Factor	Question
1.	FUN ₁	Functionality	Are you aware regarding the functionality of e-wallets?
2.	PR ₁	Preference	Why do you prefer e-wallet over other modes of payment? [Time saving]
3.	PR ₂	Preference	Why do you prefer e-wallet over other modes of payment? [Ease of use]
4.	PR ₃	Preference	Why do you prefer e-wallet over other modes of payment? [Security]
5.	PR ₄	Preference	Why do you prefer e-wallet over other modes of payment? [Other]
6.	US ₁	Usage	How many times you use e-wallet in a week?
7.	US ₂	Usage	How much money do you load in e-wallet on a monthly basis?

8.	NOUTG ₁	Need of using to get	What do you keep in mind when you use e-wallet? [Available discount]
9.	NOUTG ₂	Need of using to get	What do you keep in mind when you use e-wallet? [Premium offers]
10.	NOUTG ₃	Need of using to get	What do you keep in mind when you use e-wallet? [Cashback]
11.	NOUTG ₄	Need of using to get	What do you keep in mind when you use e-wallet? [Security]
12.	R ₁	Rate	How do you rate the e-wallet service that you used?
13.	U ₁	Use	Would you want to continue using e-wallet?
14.	U ₂	Use	Do you think that using e-wallet makes your life easier
15.	OB ₁	Obstacles	What are the obstacles when you use e-wallet?

16.	SEC ₁	Security	Is e-wallet services safe mode of payment?
17.	SEC ₂	Security	Would you like to refer your friend to use e-wallet as security concern?
18.	SEC ₃	Security	Making payment using e-wallet is secure?
19.	SEC ₄	Security	Have you lost the money due to digital fraud (online bank account hacked, credit card stolen, etc.)
20.	SEC ₅	Security	Do you have security protection installed on your device
21.	PUR ₁	Purpose	What are the reasons for choosing the online payments? [Better rates]
22.	PUR ₂	Purpose	What are the reasons for choosing the online payments? [Convenience (24 hrs service, anywhere connectivity)]

DECLARED VARIABLES

23.	PUR3	Purpose	What are the reasons for choosing the online payments? [Easy to maintain banking transaction activity (see statement)]
24.	PUR4	Purpose	What are the reasons for choosing the online payments? [Low service charge]
25.	PUR5	Purpose	What are the reasons for choosing the online payments? [Safe and secure]
26.	PUR6	Purpose	What are the reasons for choosing the online payments? [Privacy]
27.	SP1	Security Procedures	Have you read bank's online security procedures?
28.	OA1	Overall Analysis	Overall analysis of e-Payment (digital and online payment) systems. [E-Payment systems save you time and money.]

29.	OA2	Overall Analysis	Overall analysis of e-Payment (digital and online payment) systems. [E-Payment systems are better than cash.]
30.	OA3	Overall Analysis	Overall analysis of e-Payment (digital and online payment) systems. [A digital customer has to be alert to security issues when using e-Payment systems.]
31.	OA4	Overall Analysis	Overall analysis of e-Payment (digital and online payment) systems. [E-Payment offers a greater choice for consumer and merchant in the way they send and receive payment]
32.	OA5	Overall Analysis	Overall analysis of e-Payment (digital and online payment) systems. [E-Payment transaction costs are hidden from users.]

33.	OA6	Overall Analysis	Overall analysis of e-Payment (digital and online payment) systems. [Problems will not arise if your debit card is lost or stolen]
34.	OA7	Overall Analysis	Overall analysis of e-Payment (digital and online payment) systems. [E-Payment systems can be easily understood and readily adopted.]
35.	DEM1	Demographic	Please mention your age
36.	DEM2	Demographic	Please mention your gender
37.	DEM3	Demographic	What is your qualification
38.	DEM4	Demographic	Please mention your occupation
39.	DEM5	Demographic	What is your income
40.	DEM6	Demographic	Area of residence

QUESTIONNAIRE

Sr. No.	Questions	Options to select
1.	Are you aware regarding the functionality of e-wallets?	<ul style="list-style-type: none"> Fully aware Partially aware Not aware
2.	Where did you get information about e-wallets?	<ul style="list-style-type: none"> Social media Friends Magazine/Television
3.	Which device do you use for making the payment via e-wallet?	<ul style="list-style-type: none"> Smartphone Desktop Laptop Tab
4.	Which e-wallet you prefer most of the time?	<ul style="list-style-type: none"> Paytm Google pay Paypal PhonePe Amazonpay Whatsapp pay Ru pay Other
5.	Why do you prefer e-wallet over other modes of payment? (Please rate accordingly where 1 means strongly disagree and 5 means strongly agree)	<ul style="list-style-type: none"> Time saving Ease of use Security Other
6.	How many times you use e-wallet in a week?	<ul style="list-style-type: none"> Only once 5 to 10 times More than 10 times
7.	How much money do you load in e-wallet on a monthly basis?	<ul style="list-style-type: none"> Less than 5000 5001-10,000 More than 10,000
8.	What is your purpose of using e-wallet?	<ul style="list-style-type: none"> Money Transfer Recharge Utility & Bill payment Entertainment (movies etc.) All of the above

9.	What do you keep in mind when you use e-wallet? (Please rate accordingly where 1 means strongly disagree and 5 means strongly agree)	<ul style="list-style-type: none"> Available discount Premium offers Cashback Security
10.	How do you rate the e-wallet service that you used?	<ul style="list-style-type: none"> Highly satisfied Satisfied Neutral Unsatisfied Highly unsatisfied
11.	Would you want to continue using e-wallet?	<ul style="list-style-type: none"> Very likely Likely Neutral Unlikely Very unlikely
12.	What are the obstacles when you use e-wallet?	<ul style="list-style-type: none"> Network issues Some technical issues at bank Involves danger of losing money Cannot be used for international transaction
13.	Is e-wallet services useful mode of payment?	<ul style="list-style-type: none"> Strongly Agree Agree Neutral Disagree Strongly Disagree
14.	Would you like to refer your friend to use e-wallet as security concern?	<ul style="list-style-type: none"> Very likely Likely Neutral Unlikely Very unlikely
15.	Making payment using e-wallet is secure?	<ul style="list-style-type: none"> Strongly Disagree Disagree Neutral Agree Strongly Agree
16.	What are the reasons for choosing the online payments? (Please rate accordingly where 1 means strongly disagree and 5 means strongly agree)	<ul style="list-style-type: none"> Better rates Convenience (24 hrs service, anywhere connectivity) Easy to maintain banking transaction activity (see statement) Low service charge Safe and secure privacy

17.	Do you think that using e-wallet makes your life easier	<ul style="list-style-type: none"> Yes No Maybe
18.	Have you read bank's online security procedures	<ul style="list-style-type: none"> Yes No
19.	Have you lost the money due to digital fraud (online bank account hacked, credit card stolen, etc.)	<ul style="list-style-type: none"> Yes No
20.	Do you have security protection installed on your device	<ul style="list-style-type: none"> Anti-virus software Firewall protection Adware / popup window blocking tool Yes, I have installed security protection, but I am not sure what type of security protection is installed None – I don't have security software
21.	Overall analysis of e-Payment (digital and online payment) systems. (Please rate accordingly where 1 means strongly disagree and 5 means strongly agree)	<ul style="list-style-type: none"> e-Payment systems save you time and money. e-Payment systems are better than cash. A digital customer has to be alert to security issues when using e-Payment systems. e-Payment offers a greater choice for consumer and merchant in the way they send and receive payment. e-Payment transaction costs are hidden from users. Problems will not arise if your debit card is lost or stolen e-Payment systems can be easily understood and readily adopted.
22.	Please mention your age	<ul style="list-style-type: none"> 18-30 yrs. 31-40 yrs. 41-50 yrs. 51-60 yrs.
23.	Please mention your gender	<ul style="list-style-type: none"> Male Female Other

24.	What is your qualification?	<ul style="list-style-type: none"> 10th 12th Under Graduate Post Graduate Ph.D
25.	Please mention your occupation	<ul style="list-style-type: none"> Student Housewife Employed Self Employed Service
26.	What is your income?	<ul style="list-style-type: none"> 0 - 2,00,000 2,00,001 - 4,00,000 4,00,001 - 6,00,000 6,00,001 and above
27.	Area of residence: -	<ul style="list-style-type: none"> Rural Urban