

A STUDY ON AWARENESS & ADOPTION OF IOT (INTERNET OF THINGS) IN FINTECH OF MOBILE WALLET PAYMENT SYSTEM WITH SPECIAL REFERENCES TO CHENNAI CITY

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ABSTRACT

In the upgraded digital economy, the world is growing towards the cashless transactions. And in today's world, smartphones or mobile device plays an important role in everyday life and has led to an enormous growth in digital marketing. Internet of things is simply the network of interconnected things/devices which are embedded with sensors, software, network connectivity and necessary electronics that enables them to collect and exchange data making them responsive. Examples of things are connected cars, connected mobile phones or smartphones. Internet of things is the extension of internet connectivity into physical things and everyday objects. Embedded with electronics, internet connectivity, and other forms of hardware, these devices can communicate and interact with others over the internet and they can be remotely monitored and controlled. A thing, in the context of the internet of things (IOT), is an entity or physical object that has a unique identifier, an embedded system and the ability to transfer data over a network. Internet of things is attractive for FINTECH. It is not only for software and hardware developers but also for banks and other Fintech companies to enable innovative payment experiences and provide wide range of methods to accept payments using NFC Chips, payment apps (applications), sensors, QR code, etc. A number of platform/software based solutions have come up to enable payments on connected devices (i.e.) IOT. The micro section of the financial sector, i.e. retail banking, can benefit a lot from FinTech IOT adoption. Mobile wallet is downloading apps in smart phones or mobile device which stores the accounting and payment information for a smooth cashless transactions and it also keeps the payment information secured. Examples of Mobile wallet payment apps are paytm, mobiwiki, Google Pay, PhonePe. Apart from the payment process it helps the individual users to store their coupons, receipt's, bills, business cards in their smartphone or mobile device. The respondent's paper is focused on how Internet of Things in Mobile wallet payments system in digital marketing replaces the physical wallets and plastic cards like debit cards and credit cards. The study analyses the services provided by the Mobile wallet payment providers and the services used by the mobile wallet users. This study helps us to understand the effects of Mobile wallet payment which makes our day to day transactions as simple and smoother.

KEY WORDS

Digital Marketing, Internet of Things, Mobile Wallet, Smartphones, Wireless transactions.

INTERNET OF THINGS

Internet of things is simply the network of interconnected things/devices which are embedded with sensors, software, network connectivity and necessary electronics that enables them to collect and exchange data making them responsive. Internet of things is the extension of internet connectivity into physical things and everyday objects. Embedded with electronics, internet connectivity, and other forms of hardware, these devices can communicate and interact with others over the internet and they can be remotely monitored and controlled.

THING - A thing, in the context of the internet of things (IOT), is an entity or physical object that has a unique identifier, an embedded system and the ability to transfer data over a network.

HOW IOT WORKS

An IOT system consists of sensors/devices which talk to the cloud through some kind of connectivity. Once the data gets to the cloud, software processes it and then might decide to platform an action, such as sending an alert or automatically adjusting the sensors/devices without the need for the user. Communication protocols include CoAP, DTLS and MQTT, among others. Wireless protocols include IPv6, LPWAN, Zigbee, Bluetooth Low Energy, Z-Wave, RFID and NFC. Cellular, satellite, Wi-Fi and Ethernet can also be used.

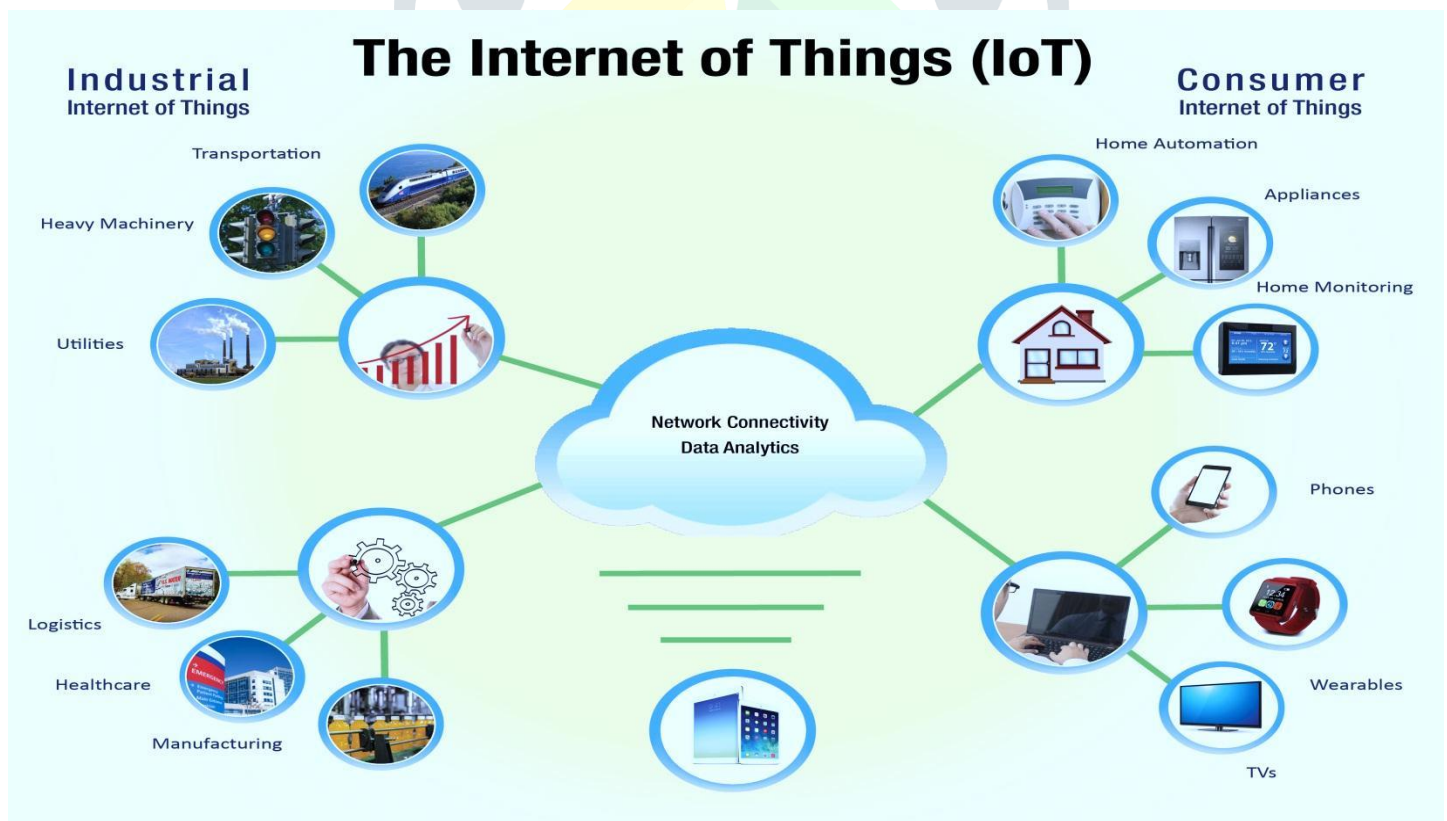


Figure 1 shows Internet of Things (IOT)

HOW MOBILE PHONES USED IN IOT

The device features sensor and internet connectivity that allows them to receive, gather and transmit information. Today you can easily control your refrigerator, treadmill, smart TV, toaster and money payments from your smart phones.

IOT IN FINTECH

Internet of things is attractive for FINTECH. It is not only for software and hardware developers but also for banks and other Fintech companies to enable innovative payment experiences and provide wide range of methods to accept payments using NFC Chips, payment apps (applications), sensors, QR code, etc. A number of platform/software based solutions have come up to enable payments on connected devices (i.e.) IOT. The micro section of the financial sector, i.e. retail banking, can benefit a lot from FinTech IOT adoption.

MOBILE WALLET

In the upgraded digital world, mobile phones or smart phones plays an important role. Smart phones are not only used as communication devices, but also to be used as socialized tool, entertainment tool, internet access tool, and even payment tool. Due to technological development, mobile users can nowadays use their smartphones to make money transactions or payment by using applications installed in the phone.

A mobile wallet or digital wallet can be defined as virtual cashless services which can replace hard cash notes. It is a virtual wallet which stores the accounting and payment information secured. Mobile wallet payment is a transfer of funds in return for a good or services, where mobile phone is involved in both the initiation and confirmation of the payment. Mobile wallet or digital wallet is a downloading app in smartphones or mobile devices which stores the accounting and payment information for a smooth cashless transactions and it also keeps the payment information secured. Mobile wallet is formed when smartphones function as a leather wallet or physical wallet. Mobile wallet can have digital coupons, digital receipts, etc in the smartphones. As the transactions are made easily and quickly, it saves time and burden of individual users. Apart from the payment process it helps the individual users to store their coupons, receipt's, bills, business cards in their smartphone or mobile device.

Mobile wallet payment services not only provide payment services but also provide offers and rewards to an individual user. For examples, cash back, coupons, discounts, etc. Mobile wallet or digital wallet payment service providers are providing competing fiercely, offering attractive offers and unrealistic discounts. Specific applications being developed for such platforms are also enabling payment capabilities as highlighted. Some of the payment applications are: - GooglePay, PhonePe, amazon pay, PayPal, mobiwiki, hdfc, axis, etc.

REVIEW OF LITERATURE

Doan (2014) conducted a study to understand consumer adoption on mobile wallets in Finland area. This research was designed in a quantitative method using questionnaire which was sent to potential respondents in Finland. The study measures the market conditions of mobile wallets users. The findings of the study revealed that the usage of mobile wallet is only in the initial stage and respondents are showing positive attitudes towards usage of mobile wallets. Research concluded that the trust factor reveal the positive impact on adoption of user, depending on the user satisfaction and user's situation.

Liu & Tai (2016) they have conducted a study in Vietnam to analyse the factors influencing the consumer's intention to use mobile payment services. The variables considered for the study to determine consumer's intention to use of mobile payment services are mobility, mobile payment knowledge, convenience, compatibility, ease of use, usefulness, risk, trust, and safety. The result shows that among the four external variables compatibility has a strong influence on ease of use and perceived usefulness is found to be a positive impact on the intention to use M-payment.

OBJECTIVES OF THE STUDY

- To study the awareness of Mobile wallet payments by the users in the city of Chennai.
- To study the adoption of Mobile wallet payment apps by the users in the city of Chennai.

RESEARCH METHODOLOGY

Research means the study or investigation of sources or things so that the facts can be established or the conclusions can be drawn by using scientific methods. The main process of methodology is to collect information and data for the purpose of research. The term research methodology means a specific techniques used for the process of research to collect, assemble and evaluate data. The research study was carried out at Chennai. The sample size for the study was 50. The sample was collected from the M-Wallet (Mobile Wallet) payment users. Questionnaires were distributed to collect primary data. Random sampling technique was used for the study. 70 questionnaires were distributed, 55 questionnaires were filled and collected, of which 50 completed questionnaires was taken up for further analysis. The statistical tools used for the study are Percentage analysis and Two-way Anova. The study provides the awareness of Mobile wallet payments and adoption of M-wallet payment apps. The analysis provide a exact details collected from the 50 respondents those who use M-wallet payment apps.

ANALYSIS OF THE STUDY

Demographic profile of 50 respondents are given in the below table 1.

TABLE 1- PROFILE OF THE RESPONDENTS

S.NO	PROFILE	PARTICULARS	NO.OF RESPONDENTS	PERCENTAGE (%)
1.	GENDER	MALE	26	52
		FEMALE	24	48
2.	OCCUPATION	EMPLOYED	11	22
		SELF-EMPLOYED	30	60
		HOMEMAKER	6	12
		STUDENT	3	6
3.	AGE	BELOW 25	3	6
		25-35	21	52
		36-45	2	4
		46-55	15	30
		56-55	4	8
		ABOVE 66	5	10

INTERPERTATION

The above table reveals the demographic profile of the respondent's gender differentiation, age and the field of occupation which they belong to.

OBJECTIVE 1 - AWARENESS ON MOBILE WALLET PAYMENT SYSTEM

The next level of analysis was carried out about the awareness on mobile wallet payment system. Awareness of the 50 respondents are given in the below table 2

TABLE 2 – AWARENESS ON M-WALLET PAYMENT SYSTEM

AWARENESS OF M-WALLET	NO.OF RESPONDENTS	PERCENTAGE (%)
FULLY AWARE	40	80
PARTIALLY AWARE	10	20
TOTAL	50	100

INTREPRETATION

It is inferred from the above table that out of the total 50 respondents, 80% of the respondents are fully aware about M-Wallet payment system. 20% of the respondents are partially aware about M-Wallet payment system.

OBJECTIVE 2 - ADOPTION OF M-WALLET PAYMENTS SERVICE

The analysis was carried out about the adoption of M-Wallet payment service by the 50 respondents according to their professional status, the following hypothesis were tested.

H0 (NULL HYPOTHESIS): There is no significant difference between the occupations in the adoption of M-wallet payment service.

H1 (ALTERNATE HYPOTHESIS): There is an significant difference between the occupations in the adoption of M-wallet payment service.

H0 (NULL HYPOTHESIS): There is no significant difference between the adoptions of various M-wallet payments service

H1(ALTERNATE HYPOTHESIS): There is an significant difference between the adoptions of various M-wallet payments service.

The analysis was carried out about the adoption of M-Wallet payment service by the 50 respondents according to their professional status are given in the below table 3.

TABLE 3 – TWO-WAY ANOVA FOR THE ADOPTION OF MOBILE WALLET PAYMENT SERVICE

OCCUPATIONS	ADOPTION OF M-WALLET PAYMENT SERVICE				TOTAL
	Paytm	HDFCPayzapp	GooglePay	ICICI pocket	
EMPLOYED	5	0	6	0	11
SELF-EMPLOYED	12	0	12	6	30
HOMEMAKER	2	1	2	1	6
STUDENT	0	0	3	0	3
TOTAL	19	1	23	7	50

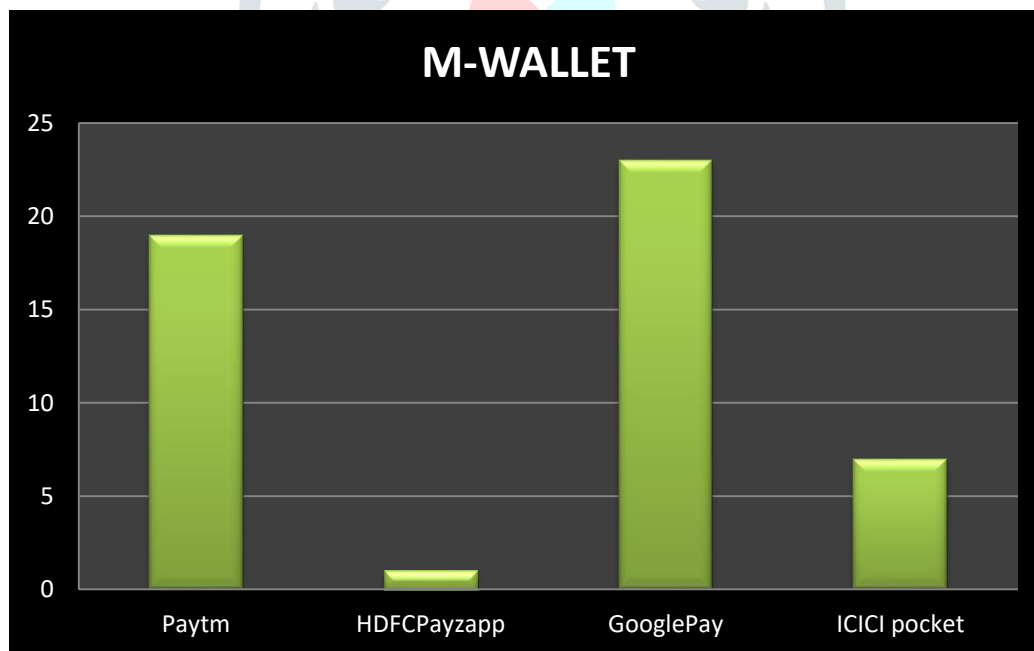


Figure 2 shows M-wallet app adoption

The table 3.1 shows the analysis of hypothesis test carried out about the adoption of various M-Wallet payment services by the respondents according to their professional status.

TABLE 3.1 – TWO WAY ANOVA TABLE

SOURCES	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE	FREQUENCY RATIO	AT 5% F-LIMIT
BETWEEN VARIOUS M-WALLET SERVICE	77.5	3	25.8	7.3	3.86
BETWEEN OCCUPATIONS	46	3	15.3	4.3	3.86
RESIDUAL VALUE	32	9	3.5		
TOTAL	91.5	15			

INTERPRETATION

BETWEEN THE OCCUPATIONS IN ADOPTION OF M-WALLET PAYMENT SERVICE

To study at 5% level of significance differences between the occupations in the adoption of M-Wallet payment service, the study reveals that, the calculated value (4.3) is greater than the table value (3.86) and hence we accept H1. Thus it can be concluded that there is a significant difference between the various kinds of occupations in the adoption of Paytm, HDFC Payzapp, GooglePay and ICICI Pocket payment service. These services make simple and smoother transactions.

BETWEEN VARIOUS KINDS OF M-WALLET PAYMENT SERVICE IN ADOPTION

To study at 5 % level of significance differences between various kinds of M-Wallet payments in adoption, the study reveals that the calculated value (7.3) is greater than the table value (3.86) and hence we accept H1. Therefore, the study reveals that there is a significant difference between the various M-Wallet payment services in adoption of various factors like safety and security, ease of use, mobility, usefulness, convenience and expressiveness.

FINDINGS OF THE STUDY

The study reveals that, 80% of the respondents are fully aware and 20% of the respondents are partially aware about M-Wallet payment system. There is a difference between the occupations in adoption of GooglePay, HDFC Payzapp, PhonePe and Paytm payment service. And also the study reveals that there is a significant difference between the adoptions of various M-Wallet payments service in adoption of various factors like safety and security, ease of use, mobility, usefulness, conveniences and expressiveness.

CONCLUSION

The term payment is as old as human civilization, since then the payment industry has undergone a drastic transition from barter system to virtual payments. Thanks to technology, because mobile users can now a days use their smartphones to make money transactions or payments by using applications installed in their smartphones which make their transactions easier and smoother. A tremendous growth in technology makes users life easier which leads to rapid awareness and adoption of Mobile Wallet in the forthcoming years.

REFERENCES & BIBLIOGRAPHY

www.wikipedia.com

www.researchgate.net

Kothari C.R., "RESEARCH METHODOLOGY – METHODS AND TECHNIQUES", New Age International Publishers, Third Edition, 2014.

Gupta S.P., "STATITICAL METHODS", Sultan Chand, 43rd edition, 2014.

Wetherbe, McLean, Turban, "INFORMATION TECHNOLOGY for MANAGEMENT – TRANSFORMING ORGANIZATIONS IN THE DIGITAL ECONOMY", Wiley India Private Litimed publishers, Fourth Edition, 2006.