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Mobile Technology Adoption in Healthcare

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Abstract

In terms of technology, there have been many advancements in the world today. As a result, the use of mobile phones for healthcare delivery is on the rise. Preventive health, health check-ups, health screenings, teleconsultations, and other uses of mobile phones and smartphones have all been documented.

Mobile health services (m-Health) are an effective, accessible, and cost-effective way for users to receive healthcare information directly from providers.

This study explains the mobile technology's adoption in healthcare from the users perspective

The goal of this study is to look into the underlying factors, as well as the consumer's attitude, that can influence future m-Health service use intentions (mHealth).

Implications

The study's findings can be used by marketers to understand the psychology of the mobile health users and encourage citizens to use mobile health to better manage their health.

The findings of this research could be useful for governments ,developers and companies to make mobile health by understanding the users psychology to attract more users .

Introduction

The field of m health is created with global uptake of mobile technology and the unfurling of wireless infrastructure. As per WHO, the definition of m health is “public health and medical practice that is carried by cellular devices such as devices for monitoring patients, mobile phones, personal digital assistant and other cellular gadgets. –WHO

Mobile technologies have shown incredible potential for improving our capacity to overcome barriers to the optimal performance of health systems. Short-term evaluations suggest that the use of mHealth offers opportunities for improving health and health system outcomes.

As per a study (Akter et.al.,2010)In comparison to traditional medical services there are many advantages of mobile health like mobility ,portability ,personalized service and that it can be present everywhere at the same time . mHealth enables patients to access health information and interact with doctors anytime and anywhere.

mHealth has become a valuable tool for providing health care services in developing countries.

According to a study (Ramanathan et.al.,2013) the health professionals like nurses and doctors maybe supported in a better way and the users can get important guidance and information so that health is managed in a better way by mobile health .

Whether a technology is accepted or rejected also depends on a the psychology of the users.A lot many studies have been done wherein the users perspective have been studies ,with the users being healthcare professionals or care givers .But there are limited studies done wherein the psychology of the users that is the people who are using mobile health ,have been studies.

As per a study (Sun et.al.,2013)for a enhanced understanding of the behaviour concerned with health technology it should be seen from a health behaviour perspective and not just a technology acceptance perspective .

As per a study (Hoque,2016) in developing countries ,more than any other new advanced communication and information technologies the Mobile phones and wireless technologies have had a farther reach to the people .

As per a study (M Kay et.al.,2011) to increase the impact of mobile health a more strategic approach is required for planning ,evaluation and development .

According to a study (WHO ,2015) the universality of cellular technology in lower and middle income countries has led to an unparalled backing in m health tools that are made to increase the accountability , measurement and clinical decision support and enhance the strength and increase quality of interventions that save life .

As per a study (Wallis et.al.,2017) even when the field of mobile health constitutes a huge range of services and products , there are many features of mobile health that have a huge potential within resource disadvantaged settings .There is a substantial range of economical ,hugely accessible tools that can be utilized at the source of delivery of care . At the same time there are a number of context that have to be looked into if such results are to be substantially incorporated into the present healthcare systems .They are to be thought from the stand point of users ,technology and regulations.

According to a study (M Kay et.al.,2011)the undertakings of mobile health have increased all over the world . As per a global survey conducted by the World Health Organization ,which involved 114 nations ,It was found that numerous countires have engrained Mobile health beginnings .

Surprisingly, India has been recognized as one of the 57 countries in the world with an imbalanced health system (WHO, 2011) and is thus facing a severe healthcare disaster as it does not have the sufficient number of skilled health workers including physicians, nurses and dentists and other healthcare resources.

In order to overcome these shortages, there is an enhanced interest in engaging mobile technology in a persons daily life .

The National digital health mission in India has been launched by Prime Minister Modi to promote digital health .

As per a study (Hussein et.al.,2017) a huge amount of capital ,efforts and time have been financed to come up with such advanced technology . But the pace of implementation of these systems is less .

For the success of the mobile health systems ,the customers must be agreeing to effectively utilize and embrace the technology .

According to a study (Cocosila & Archer ,2010) there has been an assertion to make people aware about using health advancement to decrease cost and enhance health . Some studies have studied the technology acceptance of mobile ICT in the healthcare sector in general .

Literature review

According to the findings by Cocosila and Archer (2010) an important aspect of adoption of mobile health is the users attitude to adoption .

People who have a positive attitude tend to adapt the healthy application technology more than others . Thus is also because of the fact that these people as per psychology have better belief systems which makes acceptance of change easier for them ,thus leading to earlier acceptance .

This can also be seen from the psychology of acceptance of technology by the younger generation in comparison to technology acceptance by the older generation wherein there is more resistance to acceptance .

As per a study (Deng et.al.2018) the factors which are strong predictors for adoption intention towards m health services are trust ,perceived usefulness and perceived ease of use .At the same time the impact of perceived usefulness and perceived ease of use on trust is not of importance .

With respect to users perception of mobile health ,there have been many models proposed over the years .Notable amongst these are the UTAUT Model , Technology Acceptance Model (TAM) and the motivational model , *modified theory of reasoned action (TRA) model* .

As per a study (Zhang ,et.al.,2014) an empirical research was carried out on 481 respondents using a modified theory of reasoned action (TRA) model in China . The result of the study was that the significant predictors of mobile health adoption intention are facilitating conditions, attitude, and subjective norms . As per gender the males show a higher level of m health adoption intention in comparison to females . Thus it is depicted that there are gender differences in mobile health adoption intention .

The above study is also an example of the difference in psychology of males and females and thus then gender difference .

As per a study (Hoque ,2016) a study was done in Dhaka in Bangladesh where data was collected from 250 respondents .Data analysis was done by using the Partial Least Squares (PLS) method .This is based on Structural Equation Modelling (SEM).In the study it was found that for adoption intention for mobile health –perceived ease of use ,subjective norm and perceived usefulness had significant impact . It was surprising to note that personal innovativeness's impact on adoption of mobile health was not significant . It was also found that in developing countries gender was strongly associated with the adoption and use of mHealth

As per a study (Akter et.al.,2010) in Bangladesh there are increasing concern about the usage of mobile health.Many people start using the services but discontinue after some time .

A similar situation is also being faced in India .India is also a developing country and it is the second largest country in the world after China .

As per a study (Agrawal, 2021) in terms of internet subscribers ,India is the second largest country .As of the year 2019 ,in terms of internet subscribers India is said to be the second largest country .As of 2019, India holds the world's highest data usage per smartphone with an average of 9.9 GB per month.

Conclusion

This according to various studies that performance expectancy, effort expectancy, social influence, technology anxiety, and resistance to change all had a significant impact on users' behavioural intention to adopt mobile health technology .

It provides useful information for mHealth service providers and policymakers in understanding the adoption challenges and issues, as well as practical guidance for successful mHealth service implementation.

When developing mobile health applications, developers and managers must improve initial trust in the mHealth platform, facilitating conditions, and performance expectations.

Initial trust in mobile health apps is the most important factor in a patient's decision to use them, followed by facilitating conditions and performance expectations. As a result, managers and developers must pay close attention to maintaining and improving users' perceptions of how trustworthy mHealth apps are.

To promote the applications, it is also necessary to construct supporting facilities such as customer centres and improve the application's effectiveness.This will also have an impact on the psychology of the users wherein they will have more confidence on users perception of having a solid support structure of the facilities

Other context-related determinants, such as habit and social influence, should also be investigated in order to better understand patients' adoption intentions.

The study's findings support the theoretical foundation of the UTAUT framework's application in healthcare. Furthermore, behavioural intention to adopt mHealth services is positively related to effort expectancy, performance expectancy, facilitating conditions, social influence, perceived reliability, and price value. The findings also show that the COVID-19 pandemic has resulted in a significant increase in mHealth adoption.

The high rate of mobile phone usage in the country, as well as the COVID-19 pandemic, have created excellent business opportunities for delivering reliable mHealth at a low cost. Policymakers, decision-makers, and hospital administrators can use the findings of this study to increase mHealth adoption.

The adoption of mobile health is a complicated topic. Despite the size of the mHealth market, it is still not widely accepted. The highest mobile phone adoption rate has created an excellent business opportunity for mobile phone operators and healthcare providers to provide affordable, equitable, high-quality, and accessible healthcare services.

References

Wallis, L., Blessing, P., Dalwai, M., & Shin, S. D. (2017). Integrating mHealth at point of care in low- and middle-income settings: the system perspective. *Global health action*, *10*(sup3), 1327686.

World Health Organization. (2015). *The MAPS toolkit: mHealth assessment and planning for scale*. World Health Organization.

World Health Organization. (2011). mHealth: new horizons for health through mobile Kay, M., Santos, J., & Takane, M. (2011). mHealth: New horizons for health through mobile technologies. *World Health Organization*, *64*(7), 66-71.

Hussein, Z., Oon, S. W., & Fikry, A. (2017). Consumer Attitude: Does It Influencing the Intention to Use mHealth?. *Procedia Computer Science*, *105*, 340-344.

Cocosila, M., & Archer, N. (2010). Adoption of mobile ICT for health promotion: an empirical investigation. *Electronic Markets*, *20*(3), 241-250.

Akter, S., D'Ambra, J., & Ray, P. (2010). Service quality of mHealth platforms: development and validation of a hierarchical model using PLS. *Electronic Markets*, *20*(3-4), 209-227.

Deng, Z., Hong, Z., Ren, C., Zhang, W., & Xiang, F. (2018). What predicts patients' adoption intention toward mHealth services in China: empirical study. *JMIR mHealth and uHealth*, *6*(8), e9316.

Zhang, X., Guo, X., Lai, K. H., Guo, F., & Li, C. (2014). Understanding gender differences in m-health adoption: a modified theory of reasoned action model. *Telemedicine and e-Health*, *20*(1), 39-46.

Ramanathan, N., Swendeman, D., Comulada, W. S., Estrin, D., & Rotheram-Borus, M. J. (2013). Identifying preferences for mobile health applications for self-monitoring and self-management: focus group findings from HIV-positive persons and young mothers. *International journal of medical informatics*, *82*(4), e38-e46.

Hoque, M. R. (2016). An empirical study of mHealth adoption in a developing country: the moderating effect of gender concern. *BMC medical informatics and decision making*, *16*(1), 1-10.

Hoque, R., & Sorwar, G. (2017). Understanding factors influencing the adoption of mHealth by the elderly: An extension of the UTAUT model. *International journal of medical informatics*, *101*, 75-84.

Agrawal, N. (2021). Telephone Network and Internet Penetration in India: A Pragmatic study using Data Analytics. *Global Journal of Enterprise Information System*, *13*(1), 42-48.