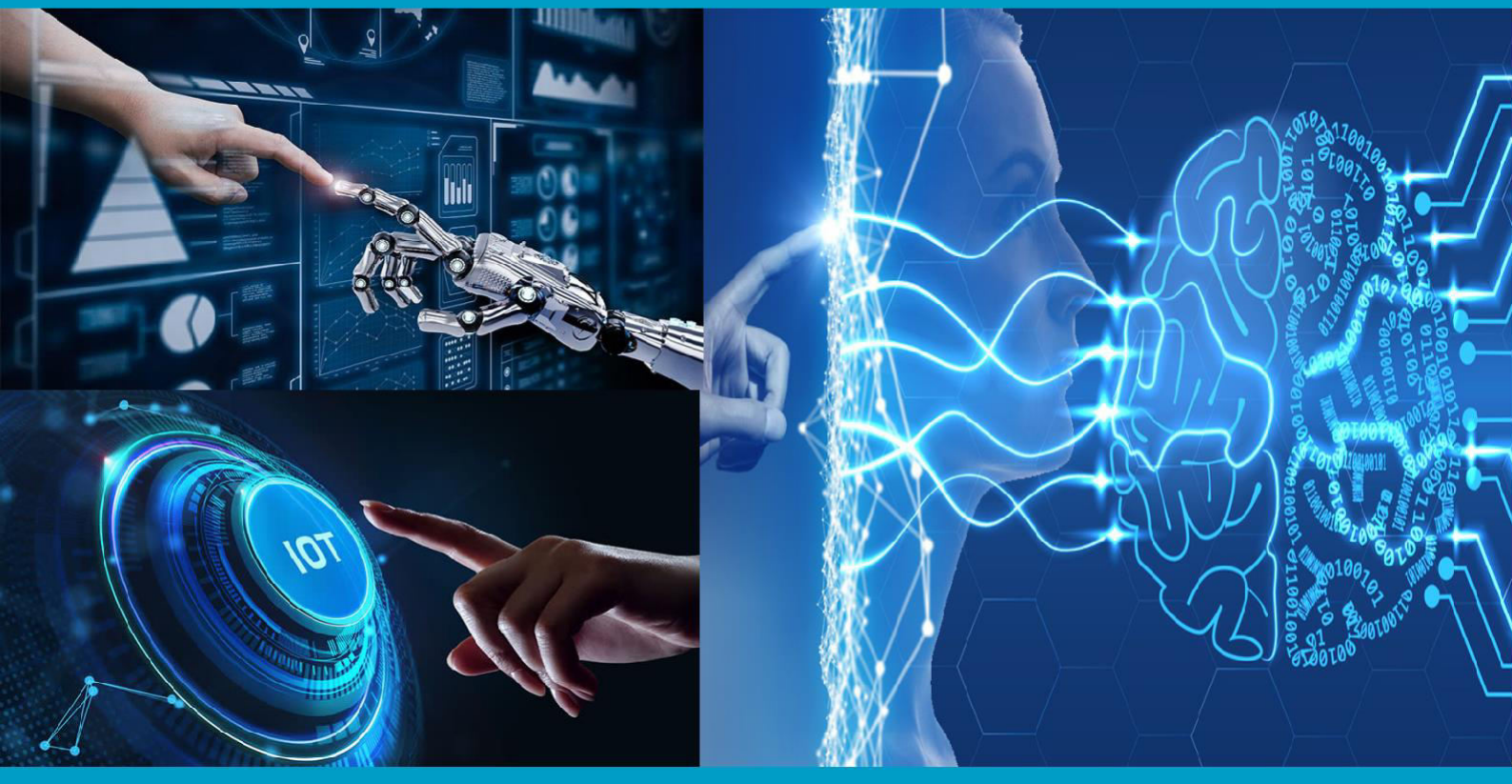
IJMRSETM

e-ISSN: 2395 - 7639



INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY RESEARCH

IN SCIENCE, ENGINEERING, TECHNOLOGY AND MANAGEMENT

Volume 9, Issue 12, December 2022

INTERNATIONAL STANDARD SERIAL NUMBER INDIA

Impact Factor: 7.580

International Journal of Multidisciplinary Research in Science, Engineering, Technology & Management (IJMRSETM)

| ISSN: 2395-7639 | www.ijmrsetm.com | Impact Factor: 7.580|

| Volume 9, Issue 12, December 2022 |

| DOI: 10.15680/IJMRSETM.2022.0912024 |

Assessment of Effectiveness of M-Government's Usage in Iran ----A Survey

Dr. Ali Asghar Khodavardi[1], Dr T.Satish Kumar[2]

Assistant Professor, Department of Journalism and Public Relations, Payam Noor University, Shiraz, Iran[1]

Assistant Professor, Dept of Journalism and Mass Communication, Osmania University, Hyderabad, India[2]

ABSTRACT : Thanks to development in mobile technology. Usage of mobiles by the public for professional, entertainment and financial services etc, has motivated government to provide many citizen services. Public is availing all the Government services through mobile applications in Iran. Government has to take feedback from the public on M—Government, so that suggestions can be easily implemented. As a result, quality of the services can be improved. This research paper has assessed the effectiveness of M—Government usage by the Iranians at two places: Ghalat and Shiraz on a sample of the respondents. Survey is done. Data is gathered with the help of a questionnaire. Quantitative method is employed in analysing the data gathered. This research has found problems in implementation of the welfare and development programmes. Suggestions were also given by the public. Improvisation of M—Government can be done. Still awareness has to be brought among the public on M—Government. Accessibility of M—Government has to be increased and penetration among the poorer sections and villages have to be done. M—Government is cost and technology intensive. M—Government implementation also needs skilled manpower. Manpower has to be trained in implementing M—Government. So, there are many challenges and opportunities in adopting M—Government. Despite, Government has to adopt and promote M—Government. As it is easy in providing M—Government services to the citizens of Iran.

KEYWORDS: Mobile apps, Citizen services, Internet, M—Government, Technology, Democracy, Mobile users and ICT.

I. INTRODUCTION TO THE STUDY

Presently, technology is influencing day to day activities of life. Life cannot be imagined without mobile usage. Smart phones and internet have revolutionised communication among the public. Mobile applications are developed for many necessities. Apps usage has become inevitable. Apps are solving many day to day works of life. Government is using apps to serve the public. Through mobile apps, government is reaching to the public at their door step. Internet is facilitating M-governance. All the departments of the government are using latest technology to provide services to the public. Governments world over are giving importance to M-Governance. As citizen services have to be delivered at the door step in time, at the click of the button. Government's performance is evaluated by the citizens from time to time. Ease of availing citizen's services will build positive perception on the government. All the governments in the world would like to have positive perception on their performance. In the same way, Iranian Government is striving hard to provide all government services to the public using information, communication and technology.

Economy of any country will develop depending on application of information, communication and technology. If common man is empowered with access to mobile communication, then possibility of his/her socio-economic status improving is high. Due to availability of cheap mobile service and data, digital divide has been reduced to a large extent. M-governance is adopted by the Government to reach people living in remote areas in towns and cities. M-governance services can be utilised by people using mobile phones with effortless ease at any time, at any place. If public utilises welfare and government schemes through M-Governance, development will take place socially, economically and culturally too.

| ISSN: 2395-7639 | www.ijmrsetm.com | Impact Factor: 7.580|

| Volume 9, Issue 12, December 2022 |

| DOI: 10.15680/IJMRSETM.2022.0912024 |

M—Governance will facilitate SMART Government. Bringing awareness on various government services is easily possible through mobile services. Public can easily explore government services through internet and mobile apps. Reaching out to public is easy through mobile and internet. Feedback also can be taken by government through SMS and links sent to the public. Governments can improvise their services from the feedback taken.

Advantages of M—Government: Connectivity with public living in remote areas or urban areas is possible through mobile apps. Information on services can be provided by the government from time to time to the public. Government services are available to the public 24X7X365 days. Technology enables it. Using mobile applications is also easy by common man. Many services are provided by the government like health, employment, education, tax, judicial and legal system etc. Financial services are also provided by the mobile apps. Mobile technology also facilitates e-participation and e-democracy. Implementation of the policies and monitoring can be easily done through technology and softwares. Huge data can be easily analysed through softwares. Awareness and motivation on citizens' services can be easily brought by mobile technology. Following up of the welfare and development programmes implementation can be done easily through technology and software.

There are various factors for increase in demand for M—Governance through mobile services. Penetration and spread of mobile technology and low cost of entry is improving connectivity far and wide. Mobile phones have replaced computer for daily services usage, because of development in convergence technology. 3G/4G/5G services are facilitating data transfer at faster rate.

Problems for providing M—Government: Cost of providing and maintaining infrastructure for M—Governance is expensive. As technology develops fast, government has to invest in upgradation of technology. Features of mobile applications have to be re-done at regular intervals. Delivery channels through M—Governance has to compliment other delivery channels. People without sophisticated mobiles or Smart phones have to be taken care of too. M—Government is cost sensitive. Incurring additional cost would keep the government in tight spot. Infrastructure has to be created in rural and remote areas to facilitate M—Governance. Government policies must be technology friendly in implementation. Policies must be inclusive in nature, so as to bring people from different sections of the society into government policy ambit. Skilled manpower is needed to implement M—Government. Training of manpower is needed from time to time. Iranian Government is investing in technology, software and skilled manpower to serve the public.

II. REVIEW OF LITERATURE

Punyabrata Ghatak, et.al (2011) described that M-government is the extension of e-government to mobile platforms. The advancements in mobile communication technology enables a natural transition from the era of e-government to the era of m-government by extending the internet from wired PCs to mobile phones. Since speech is the most natural means of communication, by linking a mobile phone to a Voice XML gateway we are able to build voice enabled Government-to-Citizen (G2C) applications which are accessible ubiquitously by anyone, anytime. Our implementation of the voice gateway successfully integrates the mobile telephone network with automatic speech recognition, text to speech synthesis for English and Hindi, and web navigation systems based on open standards and using open-source software. We describe three voices enabled m-governance G2C applications on the open-source Android platform. The platform specific m-governance applications can be downloaded directly on a mobile phone through mobile browsers for their use by citizens.

Anan Alssbaiheen and Steve Love (2015) discussed in their study analysed the challenges and opportunities associated with the implementation of mobile government services in Saudi Arabia. By collecting data through surveys from citizens and employees in Saudi Arabia, this study shows that the high level of mobile penetration in the country offers an opportunity for Saudi Arabian government to offer mobile government services in the country. The results suggest that although a large percentage of population does not have access to mobile technologies, there is still a strong desire among users for the provision of mobile government services. The effective implementation of mobile government services would enhance the technological development in Saudi Arabia.

| ISSN: 2395-7639 | www.ijmrsetm.com | Impact Factor: 7.580|

| Volume 9, Issue 12, December 2022 |

| DOI: 10.15680/IJMRSETM.2022.0912024 |

Olalekan Samuel Ogunleye and Jean-Paul Van Belle (2014) discussed that "Mobile technology has played a crucial role in facilitating democratic change in many of the developing countries. Many countries have attempted to implement Mobile Government (m-government), which is a form of electronic government, using mobile and other latest technologies such as social media as the most fundamental infrastructure for implementing such changes. However, m-government projects' scalability and sustainability are amongst the key issues relating to the use of Information and Communication Technologies (ICT). This paper attempts to discuss the scalability and sustainability of m-government projects in the context of developing countries. The aim is to provide a broader understanding of the inherent issues surrounding scalability and sustainability of m-government projects: in general terms and also in relation to mobile phone-based projects for governments' service delivery. In order to understand these issues, definitions of these two concepts are provided and various e-government maturity models are discussed. This is then followed by an overview of the challenges of scaling up and sustaining the m-government projects in developing countries, and lastly, an elaboration of how sustainability and scalability can be achieved is also presented.

According to Mehdi Hussain, Ahmed Imran (2014) with the unprecedented growth of mobile technologies, governments of both developed and developing countries have started adopting mobile services in the form of m-government. While the vendors and practitioners are heavily engaged in this transformation, the scholarly world is lagging to keep pace with the progress and to provide clear theoretical guidance for successful adoption. This paper takes a stock of scholarly publications on m-government adoption since the year 2000 and reports findings and future directions based on meta-analysis of secondary data. The articles were classified into research themes, delivery mode, theory and methods. The paper identifies the dearth of scholarly work and calls for more in-depth work to make important contribution in this area

Silvana Trimi and Kozeta Sevrani (2012) highlighted m-government in a developing country in Eastern Europe with a poor infrastructure and a democratic history Albania. To understand why m-government is unavoidable and necessary for Albania, the authors provide an overall picture of the country's current telecommunication infrastructure, which explains some of the current e-government initiatives, and their level of implementation success and barriers to progress. In addition, this paper presents possible benefits of m-government for Albanians, along with possible future applications, challenges and issues in their implementation.

Shareef M. Shareef and Johnnes Arreymbi (2013) highlighted that past decade; most countries have embraced new technologies in an effort to improve the way they offer public services to citizens. Some do so in order to improve the channels through which they communicate and interact with their citizens, while others do so to improve the efficiency of delivery services; and as a result, introduce savings in the utilization of resources that could also be used in creating new value adding initiatives. This paper looks at the opportunities provided by e-government initiatives, and also discusses the importance of citizens' involvement in e-government system development, with particular emphasis on Kurdistan Region of Iraq (KRI). Here, the authors investigate how citizen's participation affects the success or failure of e-government systems. They attempt to identify factors that could impact the use of such systems and look at ways to encourage stakeholders' engagement in the development process as a means to improve the services provision. In the end, the paper also looks at the potential for initiating a program to deliver enhanced government services and social inclusion that embraces electronic communication media within regional governments in developing countries such as KRI.

According to John Mtingwi and Jean-Paul Van Belle (2013) this paper investigates the readiness of the Malawian government to engage in mobile government (m-government). It explores the exciting potential of mobile technologies to leapfrog the conventional model of e-government in some Least-Developed Countries (LDCs) where e-government has not achieved the desired benefits due to the lack of fixed communication infrastructure and citizen access. The paper starts with an assessment of the current e-government context and status in Malawi. The research then uses a qualitative approach by interviewing more than 20 important government and non-government stakeholders to assess Malawi's readiness to embrace m-government. The theoretical framework to assess the Malawi government readiness is a combination of the Technology-Organization-Environment (TOE) framework and the Task Technology Fit (TTF) model. The findings are that although e-government was never fully realized in Malawi, the country is, to a large extent, ready to embrace mobile government and leap-frog e-government model, which is based on a fixed-line communications structure. It is hoped that

| ISSN: 2395-7639 | www.ijmrsetm.com | Impact Factor: 7.580|

| Volume 9, Issue 12, December 2022 |

| DOI: 10.15680/IJMRSETM.2022.0912024 |

other LDCs, in Africa and elsewhere, can benefit from the framework factors and themes which are uncovered and determine their mobile readiness.

Emmanouil Stiakakis and Christos K. Georgiadis (2012) proposed framework for the measurement of mobile government (m-government) services. The measurement framework consists of: (i) identification/categorization of m-government services; (ii) sophistication stages of these services; and (iii) indicators to evaluate their progress. With respect to the methodological approach followed in the study, twenty e-government services clustered by type of activity and interaction level are ranked for importance in terms of criteria that characterize the mobile setting. Moreover, core indicators used for e-government are examined in terms of their appropriateness to the mobile setting. According to the authors' findings, three m-government service clusters are established, assisting governments to prioritize services to mobile users. A modification in the sophistication model for e-services is recommended for application in m-government. Finally, the proposed indicators are mainly user-focused, in accordance with the personalized nature of services delivered through mobile devices.

Vasileios Yfantis, Konstantina Vassilopoulou, Adamantia Pateli, Abel Usoro (2013) said that the application of E-government through the use of mobile devices is a challenge for all the countries. Although developing countries are slow in adopting the new technologies, most of their habitants are already familiar with the use of mobile devices. Despite that, the implementation of m-government is still a problem. Few scholars have researched the adoption of m-government by the developing countries and the influential factors that affect this adoption. The current research explores the influential factors of the m-government adoption by improving the unified theory of acceptance and use of technology model. The improved UTAUT model derives from the additional elements of trust, context of use and human development index. The improved UTAUT contributes in the current m-government research by building a conceptual model that will be useful for scholars and policy makers so as to detect the potentiality of the developing countries to adopt m-government.

Hana Al-Nuaim (2014) highlighted "M-government is an important new field of research driven by the power of social media and the use of mobile devices, the most rapidly adopted technology in history due to their personalization, ease of use, and their wider reach. User-related contextual information empowers citizens to resolve problems and to participate in the decision-making process by simplifying access to e-services quickly and efficiently. While user interactions with mobile devices in the real world usually occur in context-rich environments with significant limitations and environmental disturbances, many mobile applications are designed as though they will be used in traditional desktop settings. However, this approach does not take into consideration nature of the interactions of users with mobile devices. Research in the relatively new field of context awareness and designing mobile user interfaces concentrates on system level development or context recognition, while human–computer interaction and usability issues have only rarely been investigated. The objective of this paper is to identify issues and raise awareness of potential challenges that user-interface designers need to consider while adapting the content of municipality and city e-government services and applications to the context-aware interactions of citizens with mobile devices. This paper concludes with context-oriented best practice m-government guidelines that need to be considered when adopting applications, which would help city governments in the delivery of more efficient e-services to mobile citizens.

Statement of the Problem: Population is huge. Usage of mobiles has grown by several folds. Government has to take help of technology to reach to the public to implement welfare and development schemes. Internet penetration has also grown. Now-a-days, people want to utilise government services at their own convenience and where ever they want. Iranian Government has devised many services to be utilised by the public. How far utilisation of these services is effective in reaching public and how far they are able to use them effectively is the problem studied in this research paper.

Purpose of the study: In the last half century, we have witnessed rapid technological advancement in every field especially in telecommunication sector. Attempts to implement e-government services in both developed and developing countries has become alike. The main objective to implement e-government is to improve efficiency in providing government services to the common man and at the same time, it also empowers people of the specific country. According to the UNDP (2003), the

| ISSN: 2395-7639 | www.ijmrsetm.com | Impact Factor: 7.580|

| Volume 9, Issue 12, December 2022 |

| DOI: 10.15680/IJMRSETM.2022.0912024 |

goals of e-government range from offering a more efficient delivery of services to the common man, to reform the government and development of the country. For a developing country like Iran, therefore, e-government would seem to be a vehicle for accelerating the pace of development. The World Bank Group (2004) states that the objectives of e-government are to provide: better services delivery to citizens, improved services for the business, transparency, and empowerment through information and efficient government.

To achieve the goal of e-government, public resources and positive mind-set of the public and government initiative is imperative. Availability of computer hard ware and software, and inclination to use electronic communication by public is very essential. But, in Iran the number of those who can afford to buy a computer, know English and access the internet is still quite minuscule. So to arrive at the goal of e-government mobile phones have to replace computer hard ware and software. Availability of internet is also a must for successful implementation of e--government. Mobile phones have a much wider dissemination of information throughout the country of Iran compared to internet penetration through other means. Indeed, the mobile infrastructure in Iran currently covers 95% of the country.

And large percentage of the population use mobile phones. Moreover, a clear trend is visible in increase in mobile subscription day by day, since 2017. At present, there are several mobile service providers in Iran. And they are competing to increase their subscription base day by day. Furthermore, there is all likelihood of mobile usage expanding substantially among the population of Iran in near future. This acts as a platform in providing vast majority of Iran with the means to participate in mobile-government (m-government). Therefore, researcher assumes that there is vast potential of m-government to function as a driving force for e-government implementation in Iran, as an appropriate issue for exploration. Researching of this issue is appreciable as delivery of various services can be made at personal level, and identification of barriers for the implementation of e-government in Iran can be found. Appropriate e-government implementation strategy can be formulated through m-government as mobile can be easily affordable, penetration of mobile internet services is expanding and mobile usage is increasing at a rapid pace in Iran. As relevant conceptual frame work is available and hence, it is both necessary and timely for this study to be undertaken.

The study will have a significant platform for the future research work which can lead to functional performance and movement. The study has a good scope in terms of providing directions to the service providers. The study will positively develop the nation through different facilities like booking travel arrangements online, advertisements etc. The study helps business men and the other professionals and the citizens in elucidating the advantages of mobile services. The new communication technology will enable them to be associated with the family members, peers and with whomever in their network within a short period of time.

Research Contribution: The study has a number of contributions to make. Firstly, by considering a range of adoption and diffusion models and finding one that suits the Iranian context, the work will make a theoretical contribution, since so far no one model has been suggested that is appropriate for the Middle Eastern environment. There will, therefore, be a methodological contribution to the literature associated with adoption and diffusion of innovations. However, given the nature of the topic - m-government and e-government - the research outcome will also contribute towards literature in this area, and in particular to that section of the literature that relates to developing countries.

This is a worthy outcome since one of the aims of development is the furtherance of democratic processes. Enhanced knowledge and understanding about the role of m- government and e--government, and its capacity to engage large numbers of the population, will contribute towards this goal. In practical terms, the study has a contribution to make in that it will allow Iran's decision-makers in the area of e-government, to gain a comprehensive understanding of the reasons for its lack of success to date, and to move towards that e-government can be achieved in the longer term. As a short and medium-term measure, m-government using the model to be proposed by this study, will serve as a building block for the nation's development.

| ISSN: 2395-7639 | www.ijmrsetm.com | Impact Factor: 7.580|

| Volume 9, Issue 12, December 2022 |

| DOI: 10.15680/IJMRSETM.2022.0912024 |

The research is concerned with m-government, and to a lesser extent, e-government. Furthermore, in its efforts to investigate the impediments associated with the development and diffusion of m-government, the concentration is on non-technical and country-specific factors, and hence it does not concern itself with the development of either software or hardware.It is restricted in scope to explore the different faces of m-government for the potentials for transforming governance by increasing their accessibility and citizen-centricity. This study brings an insight into an understanding on m-government by creating best method explanations for public service delivery and suggestions become more citizen-centric. ICTs have been seen as systemic tools for brining economic and social development.

Conceptual framework: Now-a-days, governments all over the world are planning to implement welfare and development schemes through mobile apps. Even banking services are provided through mobile apps. Citizens can sit at home and avail government services at a click of a button on a mobile app. Government is spreading mobile network all over Iran. Density of mobile usage is also increasing. Mobile applications for every need of the citizens are developed and motivated to use them. Municipal bills, electricity bills, birth certificates, death certificates, vaccination certificates, land records and other citizen services can now be availed through mobile apps. This present study

Objectives

1. To explore access to government websites by mobile users through mobile service.
2. To scrutinize type of technical problems faced by mobile users in using mobile services.
3. To search for type of phone used by mobile users and tariff plans available to them.
4. To verify which communication channels are used by mobile users to receive and utilize

III. METHODOLOGY

Scientific methods and techniques adopted to collect primary and secondary data are given below. The techniques of data analysis and interpretation are also discussed below. Quantitative method is adopted to conduct present study.Descriptive research design is used in conducting present study. Cross—sectional research design is used to collect primary data through survey.

Universe: The population of Shiraz city is 80,000, who are using mobile phones. And, 4000 people in Ghalat are using mobile phones for various purposes.

Sample frame: The researcher has taken list of all mobile users pertaining to Ghalat and Shiraz from the service providers for conducting research.

Sample method: Non—probability, convenience sampling method is used to collect primary data from the respondents. Respondents are taken based on convenience and availability.

Sample size: Total sample size (N)= 1000. 500 respondents are selected from Shiraz, it has 250 male and 250 female and in 500 respondents from Ghalat, 250 are male and 250 are female.

Sources of data collection

Data gathering instrument: Survey method is used to collect data. A structured questionnaire is prepared to collect primary data from the respondents of Ghalat and Shiraz.

Validity of the questionnaire: The data gathering instrument, questionnaire is evaluated for content and face validity by panel of experts. The panel consisted of ten experts, who have expertise in statistics, instrumentation and content. The panel

| ISSN: 2395-7639 | www.ijmrsetm.com | Impact Factor: 7.580|

| Volume 9, Issue 12, December 2022 |

| DOI: 10.15680/IJMRSETM.2022.0912024 |

of experts were asked to check questionnaire for measuring construct and easy understandability of the content. Suggestions were made by experts on content simplification to make the questionnaire simple to be filled by the respondents. Serial numbers of the items in the questionnaire were also changed on the suggestions of the experts. Technical language is simplified in the questionnaire. Many of the items in the instrument were taken from the standardized questionnaires. Experts suggested conducting a reliability test of the data gathering instrument.

Reliability of the questionnaire: Reliability test is conducted for assessing the ability of the questionnaire to reproduce similar results, each time it is used.A questionnaire is viewed to be reliable, if same results are repeated. The items of the instrument are taken from already developed questionnaires. Reliability of each item is tested with Cronbach's alpha with help of pilot study conducted with a small sample of respondents from Ghalat and Shiraz city. Reliability of the instrument was assessed adopting test—retest method and the correlation coefficient was found to be 0.82. Hence, it indicates that the instrument has high reliability and validity.

Secondary data is gathered from already published books, research articles, unpublished theses, academic journals, periodicals, information from various websites, magazines, and newspapers on e—governance and m—government. For other useful data, the researcher gathered from experts in concerned subjects. Information regarding the reach of government's citizen services through mobile apps to mobile users is gathered from Government officials and mobile service providers in Ghalat and Shiraz. Researcher relied on other researchers'personal observations, values, findings, experiences and assumptions about human psychology. To conclude a criterion for mobile users pertaining to various aspects, empirical method, survey is applied. With the help of internet, mobile users use applications related to Government services.

Data presentation, analysis and interpretation: SPSS 20 version is used to analyze the data. APA style sheet is used to draft this research paper. Descriptive and inferential statistics are used in analyzing and interpreting the data. Cross-tabs, Simple percentages, Chi-tests and T-tests were used to analyze the data. Parametric test were done to analyse the data, as significance level of reliability is above 0.05. For convenience's sake, only conclusions are presented in this research paper.

Area of research: Ghalat is a village and Shiraz is a city. Research is carried in these two places.

Scope of the study: The present study is conducted in only two areas of Iran: Ghalat (village) and Shiraz(City). The study is conducted among mobile phone users only. Shiraz is a city with 0.2 million population Ghalat (village) is having a population of 5000. Shiraz is a business and industrial area. It is well developed. It is a metropolitan city. It is in south—west part of Iran on the bank of Roodkhaneyekhoshk, a seasonal river. Shiraz is a garden city, many people used to live on agriculture. Because of industrialization, many people have left agriculture and are now living on other occupations. On the contrary, Ghalat is a village, having significant population are using mobiles.

Limitations: The present study uses non—probability, convenience sampling method. The findings cannot be generalized. As the study is concentrated in only two places, the findings cannot be generalized whole of Iran. Populations of two places are very huge. Sampling is very minimal, so findings cannot be generalized. Mobile phone industry is growing exponentially. Mobile users are also increasing day by day. So, the findings deduced cannot be generalized. Though, the results are scientifically concluded with appropriate method and statistics, the results cannot be generalized.

IV. CONCLUSIONS

Objective One: To explore access to government websites by mobile users through mobile service.

Majority of the respondents living in Shiraz having access to government websites is difficult. Maximum numbers of the respondents in the Ghalat having access to the government websites is difficult. Highest numbers of the female respondents have easy access to the government websites. Almost all the respondents in the 15-30 years age group have easy access to

| ISSN: 2395-7639 | www.ijmrsetm.com | Impact Factor: 7.580|

| Volume 9, Issue 12, December 2022 |

| DOI: 10.15680/IJMRSETM.2022.0912024 |

the government websites. The best part of the respondents in the 6-10 years mobile usage experience have said that access to the government websites is difficult. Nearly everyone of the respondents have said their main reason for inaccessibility to the government websites is often disconnection to the government websites. Most number of the respondents have said their information is not available in the government websites. Nearly all the female respondents have said that "no" their information is not available in government websites. A good number of the respondents in the 15-30 year age group have said that "no" they cannot find their information in the government websites. Maximum number of the respondents in the 6-10 years mobile usage experience have said that "no" they cannot find their information in government websites. Highest numbers of the respondents in the city have said that through the SMS they can reach to the government websites for information and services. Almost all the female respondents have said that they are using the SMS for the government information and services. Most number of the respondents in the 15-30 years age group have said that they are using the SMS for the government information and services. Nearly every one of the respondents in the 6-10 years mobile usage experience have said that they are using the SMS for the Government information and services.

Objective Two: To scrutinize type of technical problems faced by mobile users in using mobile services.

A good number of the respondents have said that "Yes", they have technical problem when they want to connect to internet and use the websites through the mobile. Nearly all the respondents have problems receiving the service through mobile services. Majority of the respondents in the village have technical problems. Nearly every one of the female respondents have said that "yes" they have technical connection problem through mobiles services. A great part of the respondents in the 15-30 years age group said that "yes" they have internet connection problems through mobile services. Maximum numbers of the respondents in the 6-10 years mobile usage experience have said that "yes" they have technical problems of mobile. A good number of the respondents in the city have said that there is difficulty in getting access to internet. A large number of the male respondents have said that it is difficult to get access to the internet. Nearly all the respondents in the 15-30 years age group have said that it is difficult to get access to the internet. Nearly every one of the respondents in the 6-10 years mobile usage experience have said that it is difficult to getting access to the internet is the main problem. The best part of the respondents in city have said that "no" they have technical problem in getting connected to the internet.

Objective Three: To explore type of phones used by mobile users and tariff plans available to them.

A good number of the respondents have said that they have smart phones. Highest numbers of the respondents in city have said that they are using the Smartphone. Maximum numbers of the female respondents have said that they have the smart phone. Most number of the respondent in the 15-30 years age group have said that they have Smartphone. A great part of the respondents in the 6-10 years mobile usage experience have said that they are using the smart phone. Nearly all the respondents in the 6-10 years mobile usage experience have said that they are using the cell phone. A large number of the respondents have said that they are not satisfied with the tariff of mobile services. Nearly every one of the respondents in village have said that they are not satisfied with tariff of mobile. A good number of the female respondents are not satisfied with tariff of mobile. The best parts of the respondents in the 15-30 years age group are not satisfied with tariff of mobile. A large number of the respondents in the 6-10 years mobile usage experience have said that they are not satisfied with tariff of mobile services. Maximum numbers of the respondents have said that they are using mobile for communicating with others.

Almost all the respondents in the city have said that "no" they don't have any limitation smart phone usage in the market. Nearly every one of the female respondents have said that "no" they don't have limitation on smartphone usage in the market. Highest number of the respondents in the 15-30 years age group have said that "no" they don't have limitation on

| ISSN: 2395-7639 | www.ijmrsetm.com | Impact Factor: 7.580|

| Volume 9, Issue 12, December 2022 |

| DOI: 10.15680/IJMRSETM.2022.0912024 |

smartphone usage in the market. Nearly all the respondents in the 6-10 years mobile usage experience have said that "no" they don't have limitation on smart phone usage in the market.

Objective Four: To verify which communication channels are used by mobile users to receive government services.

Highest numbers of the respondents living in Shiraz have said that they receive the social security information from government through the SMS. Maximum number of the respondents living in Ghalat has said that they receive the social security information from government through the SMS. Maximum numbers of the respondents using mobile, living in Shiraz and Ghalat have received the general information and alerts from government to citizens through the SMS.

A good number of the respondents have said that they are receiving citizenship services through SMS. Nearly all the respondents have said that they are receiving government records information through SMS. Almost all the respondents have said that they are receiving agricultural information through SMS.A great part of the respondents have said that they are receiving agricultural marketing information through the SMS. Nearly every one of the respondents are receiving political information from government through the SMS. Most number of the respondents have said that they are receiving the medical and health information through SMS. The best parts of the respondents have said that they are receiving educational information through the SMS from the government. Nearly every one of the respondents have said that they are receiving job information through SMS. Maximum numbers of the respondents in the Ghalat(village) have said that they receive information and services through the SMS. Nearly all the male respondents have said that they received the government information and services through the SMS. A good number of the respondents in the 15-30 years age group have said that they are receiving the government information and services through the SMS.

REFERENCES

1) Anan Alssbaiheen and Steve Love (2015), M- Government Adoption in Saudi Arabia: Challenges and opportunities, International Journal of Technology and Human Interaction (IJTHI) 11(3) Pages: 68.
2) Emmanouil Stiakakis and Christos K. Georgiadis (2012), Building a Measurement Framework for M-Government Services, International Journal of Information Systems and Social Change (IJISSC) 3(4), Pages: 37.
3) Hana Al-Nuaim(2014), Context-Aware Mobile Interface Design for M-government, User-Centric Technology Design for Nonprofit and Civic Engagements(Part II), pp 171- 186, ISBN: 978-3-319-05962-4.
4) John Mtingwi and Jean-Paul Van Belle(2013), E- Government Status and M- Government Readiness in Malawi,E-Government Implementation and Practice in Developing Countries, Pages: 31.
5) Mehdi Hussain, Ahmed Imran(2014),M-Government Services and Adoption: Current Research and Future Direction, Creating Value for All Through IT, Volume 429 of the series IFIP Advances in Information and Communication Technology pp 311-323.
6) Olalekan Samuel Ogunleye and Jean-Paul Van Belle(2014),Scalability and Sustainability of M-Government Projects Implementation in Developing Countries, Emerging Mobile and Web 2.0 Technologies for Connected E-Government, Pages: 23
7) Punyabrata Ghatak, Mohan Singh, Chandan Kumar Goyal, Saurabh Banga(2011), Voice Enabled G2C applications for M-Government Using Open Source Software, Electronic Government and the Information Systems Perspective, pp 344-355, ISBN: 978-3-642- 22961-9 (Springerlink).
8) Shareef M. Shareef and Johnnes Arreymbi (2013),E-Government Initiatives in Kurdistan Region of Iraq: A Citizen-Centric Approach,E-Government Implementation and Practice in Developing Countries, Pages: 33.
9) Silvana Trimi and Kozeta Sevrani(2012), Development of M-Government Projects in a Developing Country: The Case of Albania, Project Management Techniques and Innovations in Information Technology, Pages: 13.
10) Vasileios Yfantis, Konstantina Vassilopoulncou, Adamantia Pateli, Abel Usoro (2013), The Influential Factors of M-Government's Adoption in the Developing Countries, 10th International Conference, MobiWIS 2013, Paphos, Cyprus, August 26-29, 2013. Proceedings, pp 157-171,ISBN: 978-3-642-40275-3.

Impact Factor: 7.580

INTERNATIONAL JOURNAL
OF MULTIDISCIPLINARY RESEARCH
IN SCIENCE, ENGINEERING, TECHNOLOGY AND MANAGEMENT

+91 99405 72462 +91 63819 07438 ijmrsetm@gmail.com