

IMPACT OF COVID 19 ON PUBLIC UTILITY SERVICES IN BENGALURU: A STUDY

Vivitha, M.K.¹ and Ravi, B.K.²

¹Department of Communication, Bangalore University, Bengaluru; Professor & Chairman, Department of Communication, Bangalore University, Bengaluru, INDIA.

¹vivitha.mk@mccbblr.edu.in, ²bkravibu@gmail.com

ABSTRACT

Digital India is the flagship programme of the government to transform the country into a digitally enabled society. It amalgamates various trailblazing technologies to make available a wide range of services to the citizens at their doorsteps. E-governance is one among them and it is one of the strong pillars for digital India initiatives. E-governance along with ICT acts as a versatile tool to bring the public closer to the services provided by the government.

Even though these services were extended to the public it was not widely used. People still preferred the traditional system over e-governance. With the outbreak of the pandemic COVID 19, a lockdown was implemented and people were forced to stay indoors. Coronaphobia also coerced people to look at alternative ways to fulfill their daily necessities. Internet emerged as one of the significant tools to work, study, conduct business and communicate. People started looking at alternative methods to pay bills, to buy groceries, medicines and other daily needs. The acceptance and usage of e-governance initiatives have seen a paradigm shift since COVID.

This study is conducted to identify the factors that have led people to acclimatize to the new technological intervention. It also tries to understand which are the most popular apps used by people and the reason why they used them.

Keywords: *Digital India, e-governance, COVID 19 pandemic, Coronaphobia.*

INTRODUCTION

E-governance is an initiative started by the government of India in the late 60's. This initiative was introduced to make the whole process transparent, public-friendly and easily accessible. Earlier when people had to access any government services, be it paying tax to apply for voter's ID to paying bills they had to go to government offices and it is time-consuming. But now with a click of a button, everything is accessible with ease.

The platform of e-governance was made available to the public with the launch of the national satellite-based Computer network, NICNET in 1987. To computerize all district offices in the country District Information System of the National Information Centre (DISNIC) was launched. The required hardware and software were provided to the state government. By 1990 NICNET was extended to district headquarters via state capitals. Computerization becoming the need of the hour importance was given to tele-connectivity and internet connectivity. This enabled to set off e-governance initiatives both at the state and national level effectively.

The main goal of e-governance is to make available governmental services to the public cost-effectively and efficiently. It increases the transparency and accountability of governmental records. It simplifies the process of communication between the government and the public. The Government of India along with the State Governments have come up with various initiatives to adopt e-governance in public administration. Rural services, Revenue and Police

Administration, Social Services, Public Information, Agriculture, commercial, Municipal Services, etc are being enabled electronically.

Even though the government has implemented these services due to the lack of proper infrastructure, internet penetration rate, illiteracy, lack of awareness and lack of trust in the system the public is not able to use e-governance to the fullest. In the outbreak of COVID 19 the public had no choice but to undergo a forceful transformation at least in the urban areas.

THEORETICAL FRAME WORK

The two models listed below enables us to understand how and why people adapt themselves to a particular technological intervention. It also enables us to analyze if these interventions are successfully implemented, what are the drawbacks and how to improve the system.

Hiller and Belanger's Five Stage Model

Hiller and Belanger proposed this model in 2000. It is a five-stage model. Each stage is discussed below

- **Stage 1: Information Dissemination**
In this stage, information is disseminated to the stakeholders in a one-way communication process. This is the basic form where information is published on a static website. The users read the content to gain knowledge about government initiatives.
- **Stage 2: Two-way Communication**
At this stage, the stakeholders are asked to give feedback about the initiatives through e-mail, contact forms or feedback forms. Now the website is transformed into a dynamic one because it is interactive.
- **Stage 3: Service and Financial Transactions**
This stage is more innovative with e-governance websites providing payment options through a secure payment gateway. One example is people can apply for government documents like birth/death certificates by making an online payment. They get regular updates on the status of the application. They also get an alert message once the document is ready.
- **Stage 4: Vertical and Horizontal Integration**
Vertical integration is nothing but bringing systems from different levels together and Horizontal integration is bringing various departments of the government together. This helps in providing multiple services to the stakeholders in a single platform.
- **Stage 5: Political Participation**
This stage allows the stakeholders to participate in political developments by posting comments and online voting.

United Nation's Five Stage Model

This is a model developed to study web presence. A web presence can be studied only once we know how well the web infrastructure is laid. This model is developed based on the theoretical Web presence Measurement Model, which is a quantitative five-stage model.

- **Stage 1: Emerging Presence**

Web presence is made through an official portal, website or webpage that is launched. Information that is provided is minimal, basic and non-interactive.

- Stage 2: Enhanced Presence

Online presence is improved by including a database that discusses the policies, rules and regulations, reports, newsletter and so on. Users can search for information and also seek help in case of queries.

- Stage 3: Interactive Presence

Here the website is converted to an interactive one where users can download documents, a security link is provided, the electronic signature facility is incorporated. Users can contact government officials through e-mail, fax or telephone. Regular updation of the site is initiated.

- Stage 4: Transactional Presence

The website is now linked to a secured payment gateway so that the user can make online payments. These payments are for paying the utility bill, tax, fines for motor violation and also applying for government documents. Payments can be made through online banking or debit/credit card. G2B services like online bidding, calling tender can also be done through the secure network.

- Stage 5: Networked Presence

In this stage, a calendar of upcoming events is given on the government portal which invites people's participation. Users can give feedback through online voting, feedback forms, discussion forums and so on. Online consultation services like telemedicine fall under this category.

LITERATURE REVIEW

According to **TNN (2018)** report, Revenue Minister of Goa, Rohan Khunte has highlighted the importance of citizen-centric governance. He discussed how the Goan Government is increasing the IT-enabled citizen services. Khunte said, "Availing of more government services from the doorsteps and online through IT-enabled systems will be launched in the coming six months, which will make it much simpler for citizens to avail government services".

In the research paper, "Using e-tools for Good Governance & Administrative Reforms", the author P.K Mohanty (2017) discusses the role of ICT for good governance. He has discussed the importance of a strong ICT infrastructure. He adds that ICT has the power to bring about a complete transformation in the government and its governance. He says that "Good governance is fundamental and e-governance is instrumental. e-Governance is a tool. For the success of the e-governance tools good process reforms has to be got about. Good governance commands to design and shape the tools for enlightening governance outcomes and processes. E-Governance can be an effective if and only if the process reforms have been carried out.

Richard Heeks (2018) in his book titled, "Information and communication technology for development" says that E-governance can make governance more efficient and effective. In this paper Richard Heeks outlines the main contributions of e-governance: improving government process (e- administration), connecting citizens (e- citizens) and building external interactions (e-society). He mentions that for the successful implementation of e-governance e- readiness infrastructure and tactical best practices are a must. If the ICT

application functionalities are successfully realized they can bring benefits like: ICT can make the process cheaper, increased output, less delivery time, improved quality and accommodate new advanced technologies.

According to First Post Staff (2017) article, Prime Minister Narendra Modi speaking at the inauguration of the Global conference on cyberspace has discussed how the government discovering ways to digitally enable every citizen. He has added that digital platforms reflect democratic ideals which in turn bring ease in the living conditions. The theme of the summit was, "Cyber4All: A Secure and Inclusive Cyberspace for Sustainable Development". Speaking about the utility of digital technology in governance, Modi said, "Today, digital technology is a great enabler. It has paved the way for efficient delivery and governance."

According to The Hindu Business Line (2018) report, Mr. S Lakshminarayan a resident of Cuddalore district Tamil Nadu says, "The beauty of technology lies in easing the tasks hitherto done the hard way (consuming a lot of time and effort). There are many entities, such as the EPFO, the Railways and State electricity boards, which have initiated digital services to enable the users, complete all transactions online. But such e-services have failed to engage the masses in a big way due to technical complexity during the online process".

The Economic Times (2020) report, talks about how the government has quickly adapted to the unfortunate times and launched the Arogya Sethu app to keep the citizen informed about the deadly coronavirus. The government is also sending precautionary messages along with alerts so that the citizens are well informed. This report also discusses the emotional and psychological impact of lockdown on people. It advises the government to come up with alternative coping up-mechanism to acquaint ourselves to the new normal.

Significance of the Study:

Digital India is a campaign developed by the government of to make available government services electronically. The use of technology is localises decision-making and bonds communities with local government. COVID 19 has boosted the use of digital technology across India. This study tries of understanding people's preferences when it comes to using e-governance for public utility services. This study is also looking into changing perspectives with regard usage of e-services to post COVID.

OBJECTIVES

1. To find out the awareness among people on the e-services available to the public.
2. To analyze the role of private players in catering to the needs of the public.
3. To understand people's preferences when it comes to using these e-services.

METHODOLOGY

The study incorporates an exploratory research design to understand the people's preferences when a new technology is made available to them by the government and private players. This also enables the researcher to explore the positive and negative aspects of the technological intervention. The results obtained will help understand the current scenario and better the e-services.

The questionnaire comprises 20 questions with 18 of them being close-ended and 2 being open-ended. The questionnaire is designed to get the profile of the respondents, awareness about e-services and people's preferences when it comes to utilizing e-services.

Sampling

Samples from Urban-Bengaluru were selected for the study. A simple random sampling technique was used with the questionnaire being distributed to respondents via social media.

The respondents were people who mostly felt the topic was interesting to them and wanted to give their feedback. Once 100 responses were received the questionnaire was withdrawn automatically.

The investigation is also based on the secondary data collected from government reports, expert committee reports, subject-related books, professional journals, media reports, project reports, empirical study materials, dissertations of various universities and Internet-based materials.

Simple statistics are used to analyze the data. The data is represented using charts.

FINDINGS

The survey was conducted with a total of 100 samples. It was observed that 54% of the respondents were male and 46% of the respondents were females. The majority of the respondents were from the age group of 25 to 35 years with 61.4%, 26.6% of the respondents were of 35- to 45-year-old and 12% of the respondents were from the age group 45 to 55years. From this, it is seen that people above the age of 45 are not accustomed to the use of computers and other smart devices. They are also not the age group to be found on social networking platforms.

It is also seen from figure 1, that 100% of the respondents possess a smartphone and 84.7% have access to a laptop. From the data available we can also infer that people's preference is shifting from having a desktop to a laptop as it is mobile, occupies less space and is available at affordable rates. We can also observe that tablets are the least preferred smart device with 16.4% of respondents possessing them.

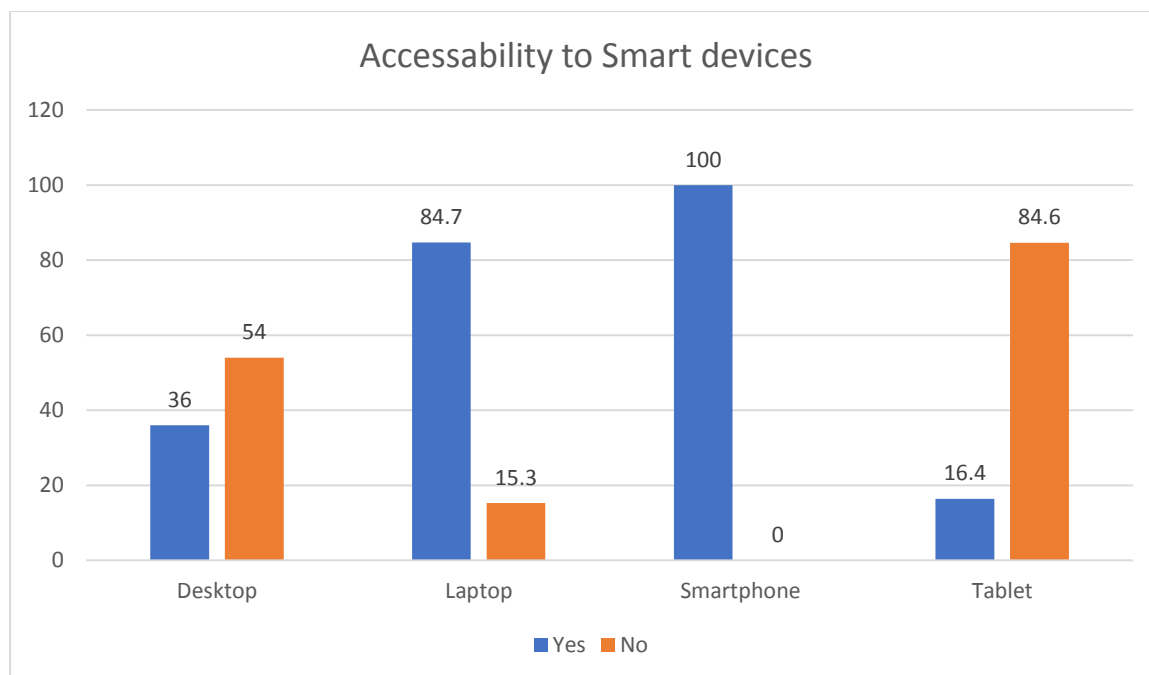


Figure 1. Accessibility to smart devices

It was also seen that 67% of the respondents said that they get updates on government policies through their smartphone whereas 23.8% of the respondents said that they get updates from television and 9.2% of the respondents from the newspaper. The smartphone users said that they get their updates from social networking platforms. They also added that they have subscribed to online news apps and follow social media pages of the government (Figure 2).

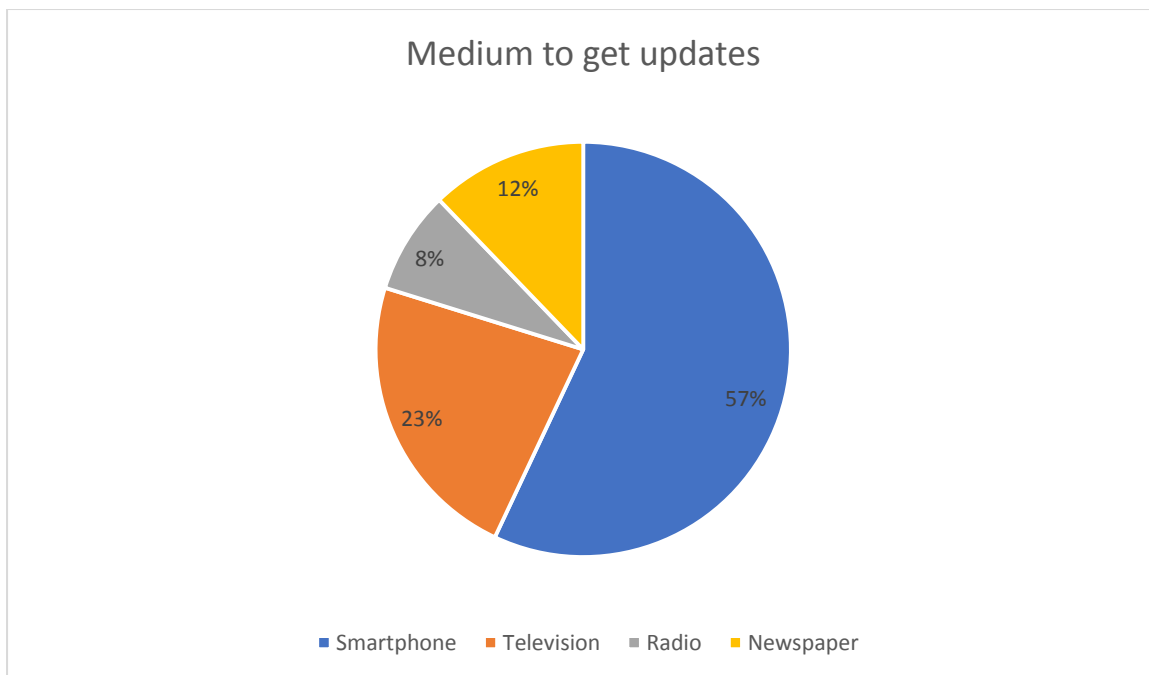


Figure 2. Medium to get updates

From figure 3 we can see that Airtel (48%) turned out to be the most preferred internet service provider followed by Reliance Jio (23%) and BSNL (20%). Some of the respondents also commented that they have access to more than one internet service. Respondents who use fiber-net technology said that even though it is on the expensive side it is the fastest internet connection they have used.

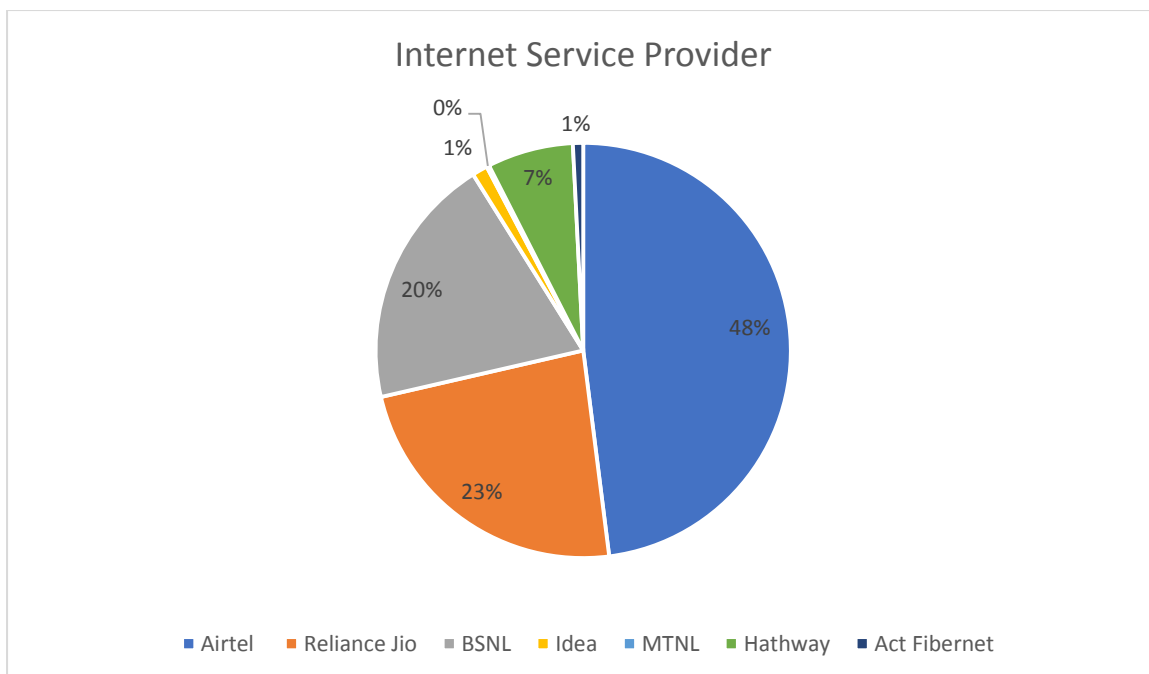


Figure 3. Internet service provider

From the below figure it is seen that 54% of the respondents spent Rs. 200 to Rs. 400 a month for internet recharge and 28% about Rs. 100 to Rs. 200. This shows that about 82% of the respondents on average spend about Rs. 250 a month at least on their internet connection. This also shows that most of the target population is digitally enabled and has internet access.

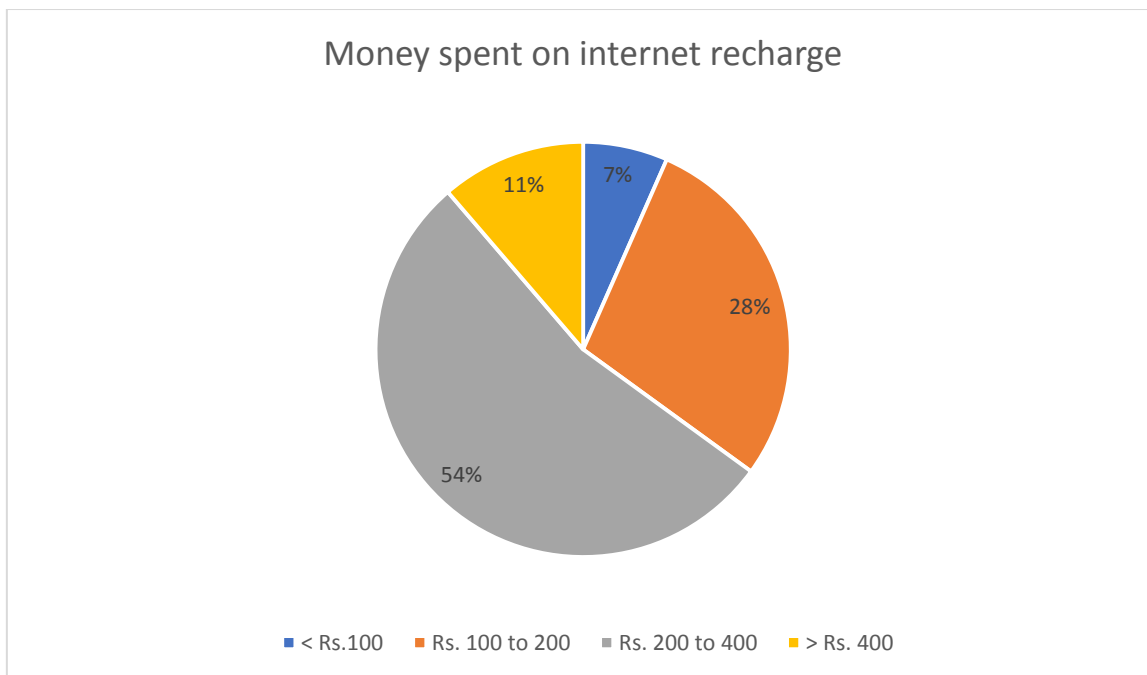


Figure 4. Money spent on internet recharge

From the data collected it is observed that people are not aware of the e-services offered and they have not downloaded these apps developed by the government. It is also seen that 40% of the respondents have downloaded BHIM app and 34% have been using Arogya Sethu. The users of Arogya Sethu said that they have downloaded the app to use public transport and get an e-pass to travel from one state to the other during COVID. Some of the respondents also said that as the number of COVID cases started increasing globally they downloaded the app to get updates from the government and also to keep themselves safe from infected people. Eventually, as they got adjusted to the new normal and disabled the app.

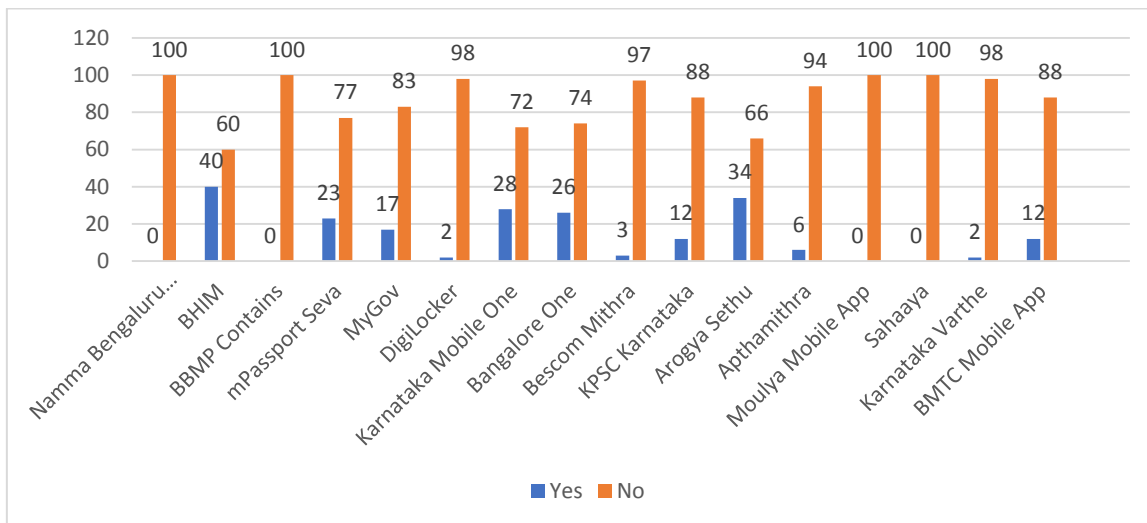


Figure 5. Use of apps developed by the government

60% of the respondents agreed that the usage of E-services increased after the pandemic. Since lockdown was imposed and people were forced to stay indoors, they started looking at alternative means to pay their utility bills like electricity, water, internet, mobile phone and so on. These alternatives came in the form of apps developed by private players which already existed in the market. It is also seen that 44% of the respondents used Google Pay and 29% of

the respondents used Paytm. From this, we can infer that most of the population prefer to pay their bills using apps developed by players than relying on government apps or websites (Figure 6).

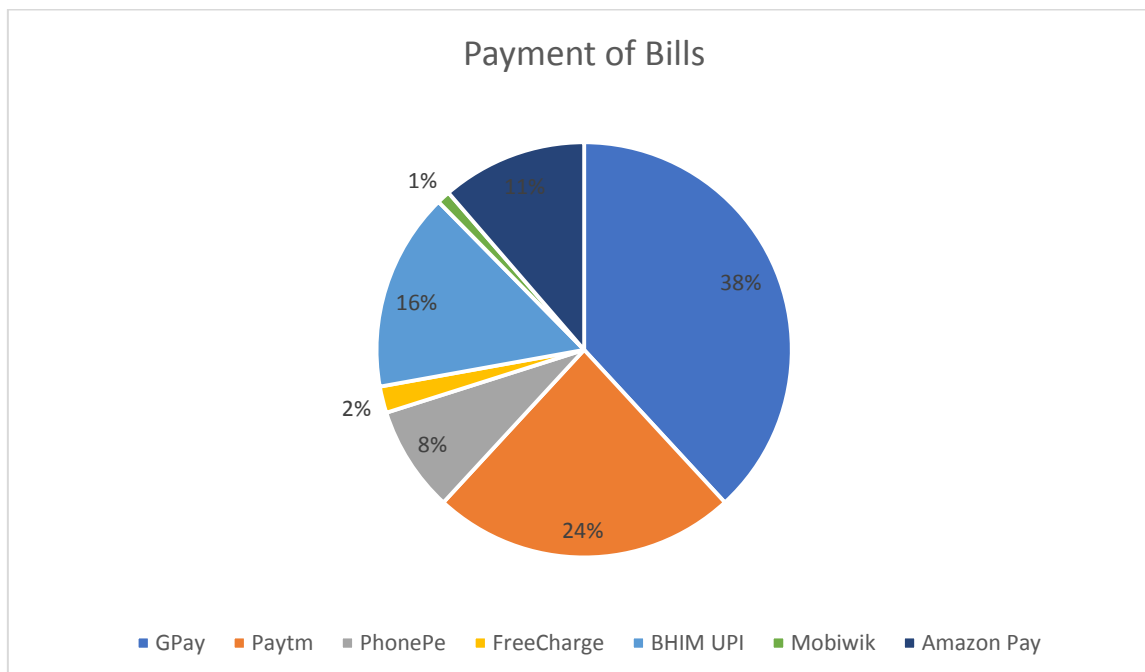


Figure 6. Status of bill payment

When asked the reason behind using apps developed by private players most of the respondents said that private players provide better consumer support. They feel that transaction errors and related issues are quickly resolved by private players. When asked about data security, 100% of the respondents are worried about data security in these apps. They feel that the contact numbers, email ids and other personal information are shared with insurance companies/ tele-consultancies. This results in people getting un-necessary calls from them. Users of the government app also commented saying that the navigation structure in these apps is not well defined as it becomes difficult to locate things the user wants. Some of them believed that different apps have different subscription charges and that again adds to the confusion.

From the research, it is also seen that people prefer going to government offices to pay their utility bills than doing it online. Respondents think that single interface citizen service centers like Karnataka-One/Bangalore-One are the best options currently available. These centers are providing multiple government services under one roof in a citizen-friendly manner.

Limitations of the study

This study has not looked into the usability of e-service apps. To make the study complete interview with officials from e-governance and m-governance departments could have been done but due to lack of time, the researcher was not able to do so. Finally, the questionnaire was distributed on the online platform and hence opinion of non-users is not fully recorded. The opinion of the rural population is not taken into account

CONCLUSION

E-governance in India has a long way to go. The Government has to strengthen its infrastructure, improve cybersecurity and reinforce cyber law in the country. Government has to increase the awareness among people of the various e-services available. Proper branding

and advertising strategy have to be evolved to acquaint citizens with the new technological intervention. The government departments have to partner with the private sector to improve the overall performance of the system and make it user-friendly and convenient. Eventhough COVID 19 has given a boost to the usage of e-services it is momentary.

BIBLIOGRAPHY

- [1]. Ashalakshmi B.S. (2012). Administrative efficiency and E-governance: A study of Kerala. *Shodhganga- A reservoir of Indian theses*.
- [2]. Anil Kumar Takur, (2009). *Growth Theory and Globalisation of India*. India. India. Deep and Deep Publications.
- [3]. Aprameya Rao. Kishor Kadam, (2016, July 7). *25 years of liberalization: A glimpse of India's growth in 14*. First Post, Retrieved from: <https://www.firstpost.com/business/25-years-of-liberalisation-a-glimpse-of-indias-growth-in-14-charts-2877654.html>
- [4]. Babu A. (2014, December 11). Karnataka e-governance initiative has miles to go to fulfil promises. *Business Standard*. Retrieved from: http://www.business-standard.com/article/economy-policy/karnataka-egovernance-initiative-has-miles-to-go-to-fulfil-promises-114121001205_1.html
- [5]. Bereau. (2011, February 18). *Use of ICT in rural areas can propel inclusive growth, says Narayana Murthy*. The Hindu, Retrieved from: <https://www.thehindubusinessline.com/info-tech/use-of-ict-in-rural-areas-can-propel-inclusive-growth-says-narayana-murthy/article20098914.ece1>
- [6]. BS Reporter. (2015, June 15). *Role of IT sector crucial to promote e-governance: FM*. Business Standard, Retrieved from: https://www.business-standard.com/article/current-affairs/role-of-it-sector-crucial-to-promote-e-governance-fm-115011401246_1.html
- [7]. Chaudhari B. (2014). *E-Governance in India: Interlocking politics, technology and culture*. UK: Roulledge
- [8]. Deepak, Kumar. (2014). Internet and the digital divide in India: A case study of Dhar. *Shodhganga- A reservoir of Indian theses*.
- [9]. Eriksen B.A. (2011). How to Bridge the Digital Divide. *Roskilde University Global Studies, Spring 2011*.
- [10]. Gopalsamy N. (2009). *Information Technology and E-Governance*. India: New Age International
- [11]. Govt of India. (2017, August 8). *Digital India: Bridging the Digital Divide*. Retrieved from: <http://egovernance.in/news/digital-india-bridging-digital-divide/>
- [12]. Govt of Karnataka. (2017, May 8). *E-governance*. Retrieved from: <http://www.karnataka.gov.in/e-governance/Pages/Objectives.aspx>
- [13]. Govt of Karnataka. (2012, February 12). *Taking stalk of e governance in Karnataka*. Retrieved from: <http://egov.eletsonline.com/2012/02/taking-stock-of-e-governance-in-karnataka-2/>
- [14]. Mookkiah Soundarapandian. (2006). *New economic policy and rural development*. India. Serial Publications

- [15]. Rajesh Kurup. (2018, February 1). *Govt doubles Digital India allocation to ₹3,073 crore; telecom sector disappointed*. The Hindu, Retrieved from: <https://www.thehindubusinessline.com/economy/budget/govt-doubles-digital-india-allocation-to-3073-crore-telecom-sector-disappointed/article22620283.ece>
- [16]. Saleel Chembayil. (2016, November 13). *In india what is liberalization, Privatization and Globalization*. Retrieved from: <https://www.quora.com/In-India-what-is-liberalization-privatization-and-globalization>
- [17]. Sharma P. (2004). *E-governance*. India: APH Publishing
- [18]. Sinha R.P. (2006). *E-Governance in India: Initiatives & Issues*. India: Concept Publishing Company.
- [19]. Special Correspondent. (2004, November 6). 33 p.c. of e-governance projects have failed. *The Hindu*. Retrieved from: <http://www.thehindu.com/2004/11/06/stories/2004110609470400.htm>
- [20]. Tech Desk. (2017, February 1). Govt to bring free Wi-Fi in over 1000 villages with new pilot project. *Indian Express*. Retrieved from: <http://indianexpress.com/article/technology/tech-news-technology/government-to-bring-free-wi-fi-to-over-1000-villages-through-new-pilot-project-4502226/>