# A Study On The Problems Faced By Elderly People While Using Web-Based Applications During Pandemic Situation

**Muthukrishnan.Rᵃ, Vijay. B ᵇ, Manikanda prabu. C ᶜ and  Ragul. S ᵈ**

*ᵃAssistant professor, School of Management, Sri Krishna college of Engineering and Technology, Coimbatore 641008.*
*ᵇ,ᶜ,ᵈ PG students, School of Management, Sri Krishna college of Engineering and Technology, Coimbatore 641008*

**Abstract:** The study deals with the problems faced by elderly citizens while using the web-based applications during the pandemic situation started from January 27 2020. Most of the cities have been imposed curfew and lockdown, so that no one can come out of their house. They face many difficulties like paying the rent, electrical bill, banking transactions etc… The digital exclusion of elderly people is a significant contributor to low public e-service adoption. The situation is worrying because elderly people are a big target for many forthcoming government-supplied services, such as online health services. Governments should always aim to improve productivity and efficacy by playing an important role in a sustainable society so that publicly- based resources can be properly exploited. However, if the intended users of such services are excluded from or do not wish to use them, the sustainable implementation of public e-services is problematic. We need to know more about the views of elderly people as to why they are technologically removed to resolve this troublesome situation. Also, we present how these views can be classified and how they communicate in between as well. To increase the digital participation of elderly people, these results will serve as a framework for how to deal with these issues, which will increase their acceptance of public e- service in the long run.

*Keywords*: Web-based applications, Elderly people and Pandemic situation

## Introduction

In today's competitive world we are stepping into the world of digitalized so peoples of different age groups are utilizing in a manner that it would efficiently make their work. Elderly peoples are not aware of the upcoming technology, so they are not as updated as the younger ones. Many online channels would make our work and other important tasks to do at easier means of mode. Hence there is a rapid increase in emerging technology developed by information technology (IT) elderly peoples are less likely to adopt the changes and facing difficulties in using them. Hence we should find the best alternative ways to make all the age groups use technological applications easier and safer.

People aged over 65 are the fastest-growing group in many affluent countries. We live longer and stay engaged later in life as a global society. According to a Pew Research Institute report, 73 percent of individuals over the age of 65 were connected to the internet in 2019. People over the age of 65 have the highest household wealth of any age group, the US Census Bureau estimates. In this growing and affluent population, digital products frequently struggle. Due to the bad design abounds. Current interaction designs also feature unreadable text, small goals, shocking sounds, and other features that render older users unfriendly to the online environment.

## NEED FOR THE STUDY

This study helps to identify the problems and issues faced by the elderly people while using web- based applications during the pandemic situation. To analyze the essential services needed by the elderly people during this crisis and they have to depend on someone for getting their tasks done like paying their utility bill payments, online shopping, banking services etc… We are going to conduct a survey about their purpose of usage and their preference of web-based applications by the elderly people.

## OBJECTIVES OF THE STUDY

- To study the problems faced by elderly people while using web-based applications during pandemic situation.
- To analyze the purpose of using web-based applications by elderly people during the pandemic crisis.
- To examine the attitude of elderly people towards web-based applications in terms of security and privacy during the Covid-19 pandemic situation.

## SCOPE OF THE STUDY

This study will help in assessing the adoption of web-based applications by elderly people. This would help in identifying the gap in the implementation process. The adoption of new technology and gadgets by elderly people is a challenging one, but during this pandemic situation they have to depend on somebody  therefore the study would help in identifying the needs and problems faced by elderly people.

## RESEARCH METHODOLOGY

Type of research: Descriptive research
Types of sampling: Judgmental sampling

Sample size: 90

**DATA COLLECTION**

**Primary data:** The primary data are those, which are collected for the first time by the researcher. It is fresh data. It was collected by administering questionnaires from elderly people.

**Secondary data:** It refers to the already existing data. This study uses the internet, books, Published articles, journals, and Newspaper articles methods to collect the data.

**Tools used for analysis:** Percentage Analysis, Descriptive statistic and ANOVA-Test

**Limitations of the study**

- The sample size is limited to 90 and that may be a bias to the study.
- The respondent may fail to express their opinions and beliefs
- The study is limited to elderly people only.
- They are not aware of the latest emerging technology.
- They may feel several barriers to adopting new technologies.

**ANALYSIS AND INTERPRETATION**

**Table 1: Demographic profile of the respondents**

| Demographic profile | Particulars | No. of respondents | Percent |
|---|---|---|---|
| Age | 40-50 years | 42 | 46.7 |
| | 51-60 Years | 40 | 42.2 |
| | 61 - 70 Years | 7 | 7.8 |
| | Above 70 Years | 1 | 1.1 |
| | Total | 90 | 100 |
| Gender | Male | 69 | 76.7 |
| | Female | 21 | 21.2 |
| | Total | 90 | 100 |
| Education Qualification | HSC | 24 | 26.7 |
| | Diploma | 9 | 10 |
| | UG | 23 | 25.6 |
| | PG | 21 | 23.3 |
| | Schooling | 13 | 12.2 |
| | Total | 90 | 100 |

46.7% of the respondent belongs to the age group of 40-50 Years, 42.2% of the respondent belongs to the age group of 51-60 Years, 7.8% belongs to the age group of 61-70 Years and 1.1% belongs to the age group of above 70 Years. 76.7% of the respondents belong to males and 21.1% of the respondents belong to a female. 10% of the respondent had Diploma education, 24% of the respondents had completed secondary school education, and 25.6% of the respondent has qualified under graduation, 11% of the respondents had completed schooling and 21% of the respondent have qualified post- graduation.

**Frequency of using web-based applications**

| Frequency of using web-based applications | No. of respondents | Percent |
|---|---|---|
| Regular | 39 | 43.3 |
| Occasionally | 20 | 20 |
| Often | 28 | 31.1 |
| Never | 3 | 3.3 |
| Total | 90 | 100 |

3.3 % of respondents never use web-based applications, 20% use it occasionally, 31.1% of the respondents use it often and 39% of the respondents use it regularly.

**Purpose of using web-based applications**

| Purpose of using web-based applications | No. of respondents | Percent |
|---|---|---|
| Personal | 35 | 38.9 |
| Official | 14 | 13.3 |
| Both | 40 | 44.4 |

| Total | 90 | 100 |
|-------|-----|-----|

44.4% use it for both personal and official purpose, 13.3% uses it for official purpose, and 38.9% of the respondents use it for personal purpose.

**Satisfaction level of using web-based application**

| Web-based application | No. of respondents | Percent |
|-----------------------|--------------------|---------|
| Highly dissatisfied | 2 | 2.5 |
| Not satisfied | 24 | 30 |
| Satisfied | 33 | 38.8 |
| Highly satisfied | 31 | 28.8 |
| Total | 90 | 100 |

It depicts the distribution of the respondents based on the satisfaction of the respondent. It is found that 2% of the respondent are highly dissatisfied with using web-based applications, 24% of the respondent are not satisfied, 33% of the respondent are satisfied and 31% of the respondent are highly satisfied with using web-based applications.

**COMPARISION BETWEEN AGE AND PURPOSE OF USING WEB- BASED APPLICATION**

**Age VS Purpose of using the web-based application- ANOVA Results**

| Age (in years) | N | Purpose of web-based application | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Purpose | | Elderly people | | Focus on the issue | | Participative decision making | | Interpersonal Relationship | |
| | | Mean | SD | Mean | SD | Mean | SD | Mean | SD | Mean | SD |
| 40-50 | 42 | 2.95 | 0.81 | 3.86 | 0.00 | 3.20 | 0.86 | 3.00 | 0.80 | 3.86 | 0.75 |
| 51-60 | 40 | 2.40 | 0.00 | 3.80 | 0.00 | 3.20 | 0.00 | 3.20 | 0.00 | 3.60 | 0.00 |
| 61-70 | 7 | 2.63 | 0.74 | 2.83 | 0.66 | 2.81 | 0.58 | 2.96 | 0.51 | 3.09 | 0.64 |
| Above 70 | 1 | 2.12 | 0.00 | 2.30 | 0.00 | 2.46 | 0.00 | 2.46 | 0.00 | 2.12 | 0.00 |
| Total | 90 | 2.74 | 0.77 | 2.85 | 0.71 | 2.78 | 0.58 | 2.97 | 0.59 | 3.03 | 0.61 |
| F | | 1.423 | | 1.918 | | 1.178 | | 0.142 | | 1.809 | |
| Sig at 5% level | | 0.243 | | 0.134 | | 0.324 | | 0.934 | | 0.153 | |

Ho1= There is no significant difference between age and purpose of web- based application

Ho2= There is no significant difference between age and elderly people Ho3= There is no significant difference between age and focus on the issue.

Ho4= There is no significant difference between age and participative decision making.

Ho5= There is no significant difference between age and interpersonal relationships.

It shows that concerning the purpose of using a web-based application, focusing on issue, participative decision making, and interpersonal relationship and there is a significant difference in the mean scores with different age groups as the significance value is less than

Further, it also depicts that, there is a significant difference among different age groups concerning the purpose of using a web-based application, focusing on the issue, participative decision making, and interpersonal relationship. Therefore hypothesis Ho is rejected.

**Comparison between education qualification and use of web-based application**

| Age (in years) | N | Dimensions of TQM | | | | | | | | | |
| | | Awareness of Web-based application | | Elderly people | | Focus on usage of purpose | | Participative decision making | | Interpersonal Relationship | |
| | | Mean | SD | Mean | SD | Mean | SD | Mean | SD | Mean | SD |
| HSC | 24 | 2.68 | 0.74 | 2.95 | 0.87 | 3.20 | 0.60 | 3.00 | 0.81 | 3.86 | 0.76 |
| Diploma | 9 | 2.40 | 0.00 | 3.80 | 0.00 | 1.20 | 0.00 | 3.20 | 0.00 | 3.60 | 0.00 |
| UG | 23 | 2.63 | 0.68 | 2.83 | 0.76 | 2.81 | 0.58 | 2.96 | 0.51 | 3.09 | 0.64 |
| PG | 21 | 2.56 | 0.56 | 2.79 | 0.68 | 2.68 | 0.61 | 2.97 | 0.74 | 2.87 | 0.59 |
| Total | 80 | 2.74 | 0.77 | 2.85 | 0.71 | 2.78 | 0.58 | 2.97 | 0.59 | 3.03 | 0.61 |
| F | | 1.423 | | 1.918 | | 1.178 | | 0.142 | | 1.809 | |
| Sig at 5% level | | 0.243 | | 0.134 | | 0.324 | | 0.934 | | 0.153 | |

Ho6= There is no significant difference between education qualification and employee involvement.

Ho7= There is no significant difference between education qualification and focus on training.

Ho8= There is no significant difference between education qualification and participative decision making.

Ho9= There is no significant difference between education qualification and interpersonal relationships.

The above table shows that concerning education qualification viz., Awareness of Web-based application, Elderly people, focus on the usage of purpose, Participative decision making, and Interpersonal Relationship there is a significant difference in the mean scores with different education qualification as the significance value is less than 0.05. Further, it also depicts that, there is no significant difference among education qualification concerning Awareness of Web-based application, Elderly people, focus on the usage of purpose, Participative decision making, and Interpersonal Relationship. Therefore hypothesis Ho is rejected.

**FINDINGS**

- 46.7% of the respondents are from the age group of 40-50 years.
- Male respondents (76.7%) are higher when compared with female respondents (21.2%).
- 26.7% of respondents completed their higher secondary schooling (HSC).
- 39.3% of respondents use web-based application for their purpose.
- 70% of respondents use web-based applications for net-banking.
- 80% of the respondents use Amazon for their online mode of shopping.
- 64.4% of the customer use Cash on delivery mode of payment during online shopping.
- 44.9% use web-based applications due to their faster and quicker response.

**SUGGESTIONS**

- AI Chabot that receives questions from users, tries to understand the question and provides appropriate answers. It can also perform tasks by user queries. It does this by converting an English sentence into a machine-friendly query, then going through relevant data to find the necessary information, and finally returning the response in a natural language sentence or perform a specified task. In other words, it answers your questions like a human does, instead of giving you the list of websites that may contain the answer.
- Most of the search engines today, like Google, use a system (The Page rank Algorithm) to rank different web pages. When a user enters a query, the query is interpreted as keywords and the system returns a list of highest ranked web pages that may have the answer to the query. Then the user must go through the list of web pages to find the answer they are looking for. Chat bot, however, will try to understand the query and provide a definitive response. There will be four main units to the system working together to understand the question and return an appropriate answer:

## CONCLUSION

A new paradigm for the human interface is the Chabot and the RPA that plays a major role in our project by providing all the necessary features that can be accessible and understandable for the elderly people to get any type of service from the web-based application. In our project, the user interface will be a Conversational User Interface. It is also known as Chat bots. It mimics a conversation with a real person through text. Our Chabot can be used for e-commerce, games, order food, search engine, book a ticket, customer support, and so on.

The user interface UI is designed in a way so that it can respond to the common customer queries and provide assistance 24/7 which significantly reduces employment costs for companies who implement the systems, as their customer support agents. UI is designed within the constraints of an existing platform. Before starting the design process, we clarified the capabilities, limitations, and opportunities of the platform working on. The UI will be more like a Messenger bot and we had to eliminate the ideas that wouldn't work technically. Once the device gets turn on the person needs to select the required language. Then the Chabot gets activated and performs the required task that has been given to them. So that the people need not click anything on the device and just use the device with the voice commands. This technique can be used even offline when there is no availability of internet services.

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