A Study on Mobile Healthcare Applications for Self-Health Care

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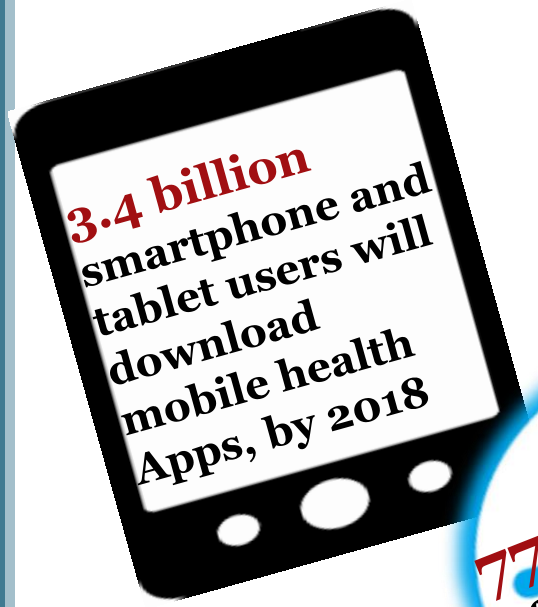
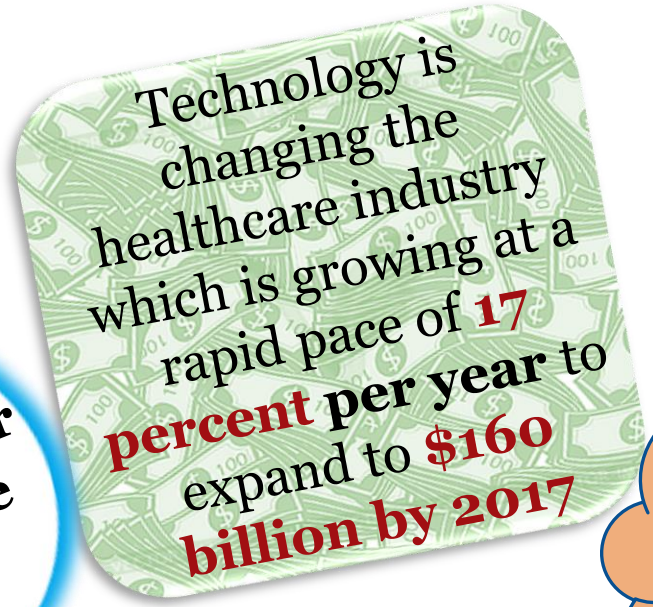
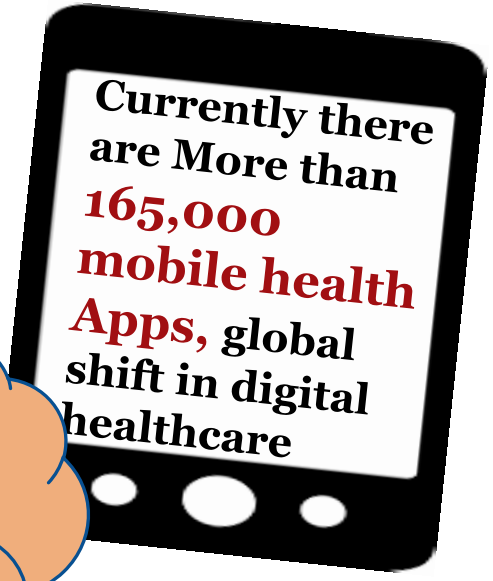
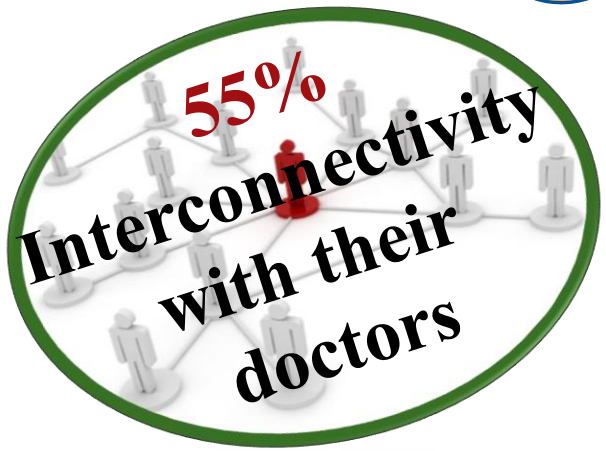
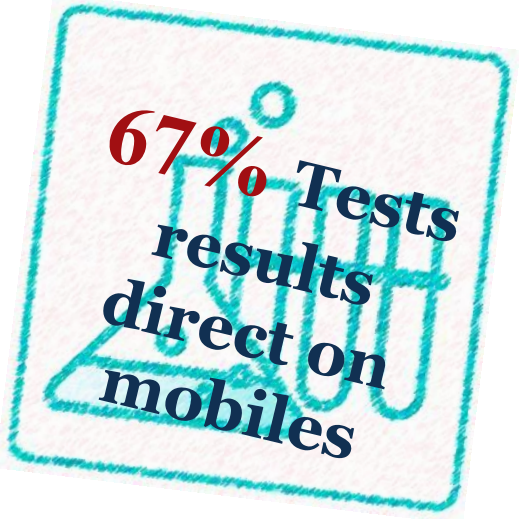
Mobile Healthcare App: Introduction











Objectives

1. To study factors related to use of mobile healthcare applications
2. To study perception of the users related to the factors' usefulness in self-healthcare using mobile healthcare Applications.
3. To identify the barriers faced by the users while using mobile healthcare application for self healthcare

Methodology

- **Study Design:** Concurrent and Descriptive study.
- **Study Respondents:** Staff working in IT Companies, and using any type of Mobile Healthcare Applications.
- **Study Setting:** The study was conducted in three IT Companies of Bengaluru city.
- **Duration of Study:** Three months (February to April 2017).
- **Sampling :** Collection of the contacts who were using any type of mobile Healthcare Application , approached in person or through voting email, and who were willing to participate were responded through email.
- **Sample Size:** 112 participants.
- **Data Collection Instrument:** A self-administered tool (having 15-item) both in the form of paper and Google Docs form.

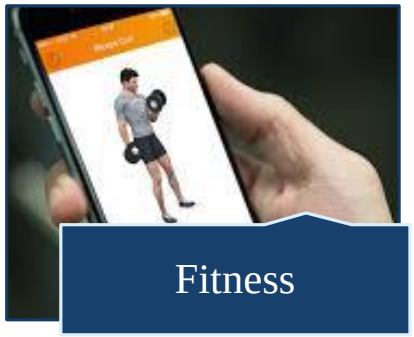
Methodology…

- The following steps were taken:
  - **Step 1:** Literature review of various studies using key words: mobile health care app, self health care delivery, factors.
  - **Step 2:** Permission was taken from different IT Companies to conduct a study. A list of all the people who were using any type of mobile healthcare app was prepared.
  - **Step 3:**Information related to study was given to the staff who were ready to participate in the study.
  - **Step 4:** Data collection by approaching the staff of one IT company where I was working. (Hard version)
  - **Step 5:** The soft version of questionnaire was sent to rest of the respondents (of other companies) who were willing to participate.
  - **Step 6:** Data Analysis using Excel

Mobile Healthcare App Market: Types and Top grossing Apps

My Fitness Pal
(50 million Downloads)

Save on Medicine/Lab Test
(1 million downloads)

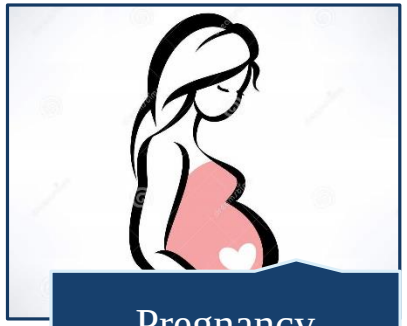


Fitness

Tracking Activities

Diagnostic Tests

Pharmacy



Pregnancy

Medical consultation

Medical Records

Diet Control

Pregnancy Plus
(5 million Downloads)

Practo
(1 million downloads)

My Diet Coach
Weight loss
(10 million downloads)

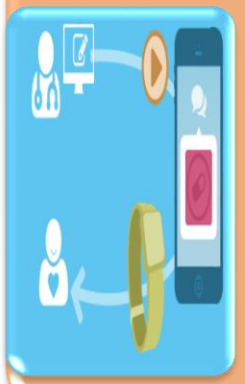
Results

Factors related to mobile health applications

Functionality

1. Layout
2. Navigation
3. Ease in handling
4. Timely Reminders
5. Graphical Results
6. Data Sharing and storage

Information Management



1. Result Accuracy and Reliability
2. Inter-connectivity
3. Technology personal friendly
4. Privacy and Security
5. Quality
6. Pop up messages

Usability

For which service the App is being used

1. Diet Record
2. Weight Record
3. Medical condition monitoring
4. Tracking activities
5. Physician appointments
6. Medical Consultation

Engagement

1. Motivation
2 . Conscious for health
3. Negative Experience
4. Satisfaction
5. Convenience
6. Recommendation

Results

Impact of various factors in delivering self-healthcare through mobile healthcare applications

Profile of the respondents

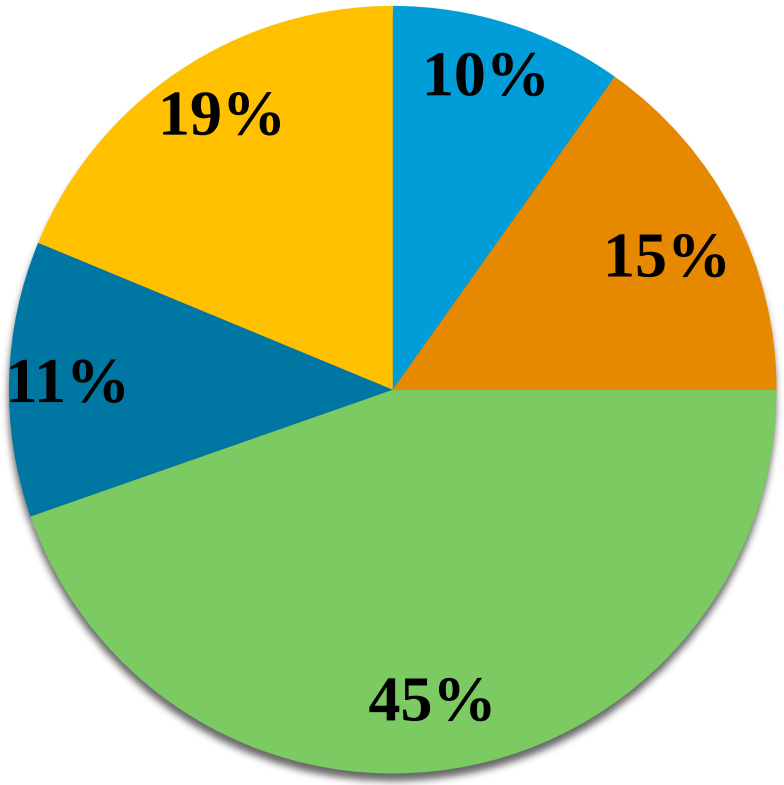
Male 46%

Female 54%

Belong to age group of 25-40 years

Results

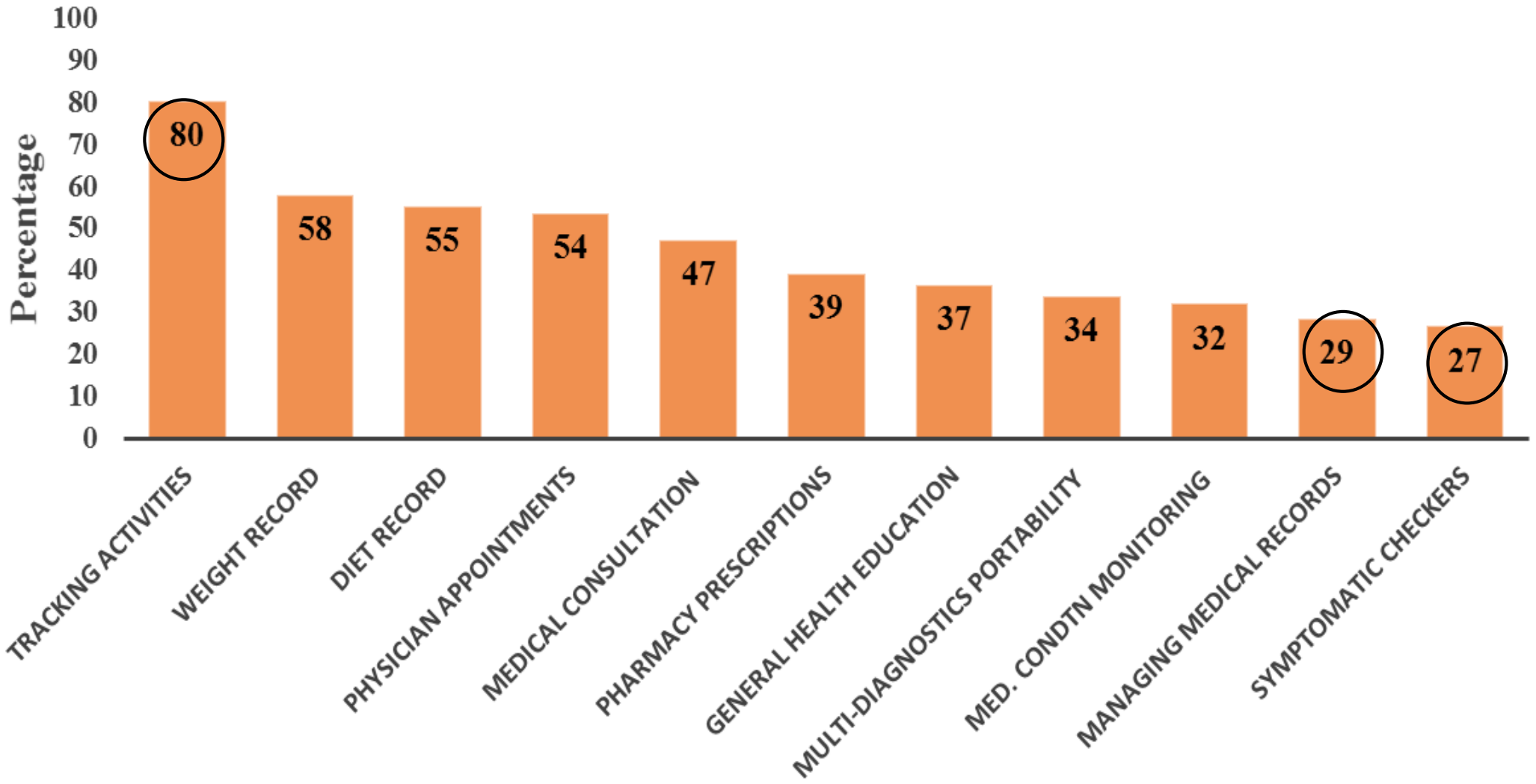
Percentage Distribution of Consciousness of people about their health



- No fixed lifestyle pattern with not much concerned about health
- Follow Sedentary Lifestyle with no or little concern to health
- Follow healthy diet and exercise occasionally
- Follow Healthy Diet regularly
- Exercising regularly along with healthy diet

Usability

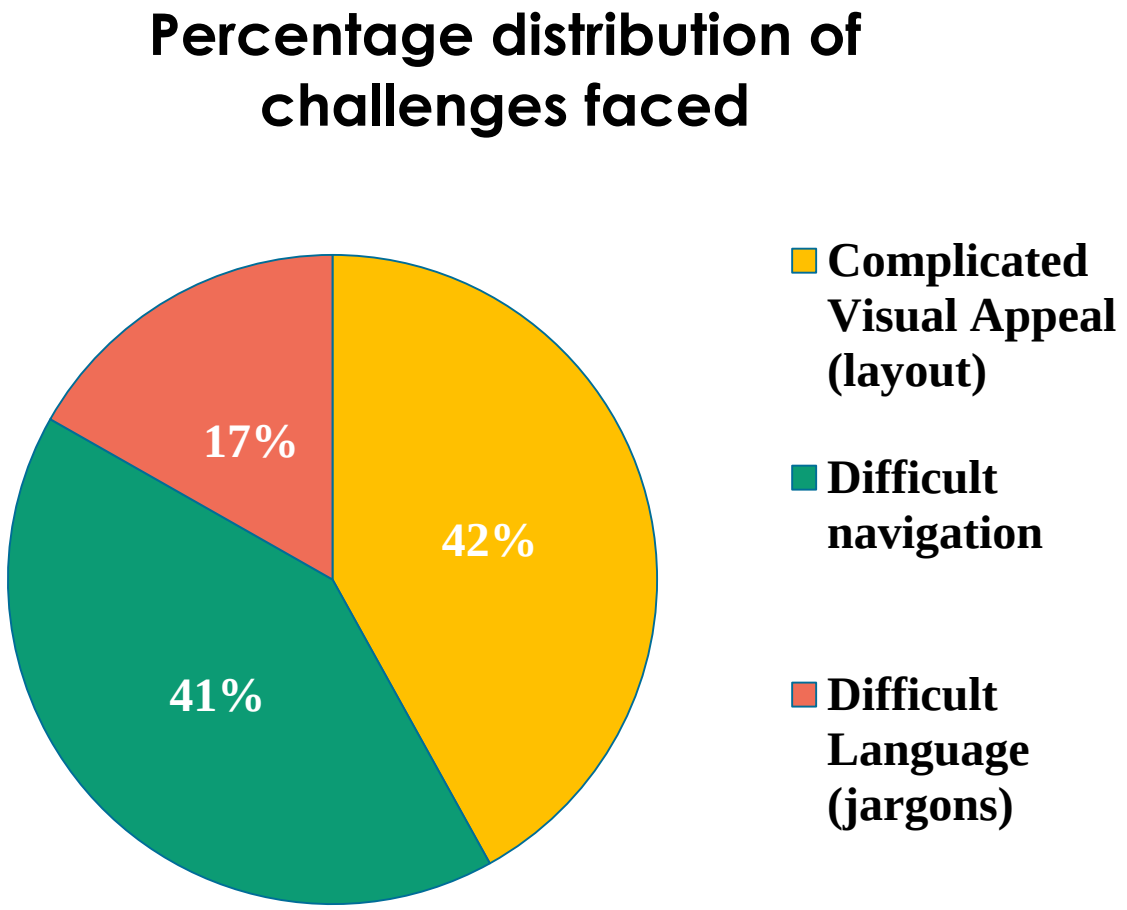
Percentage Distribution of Respondents by Type of services they were using



Functionality

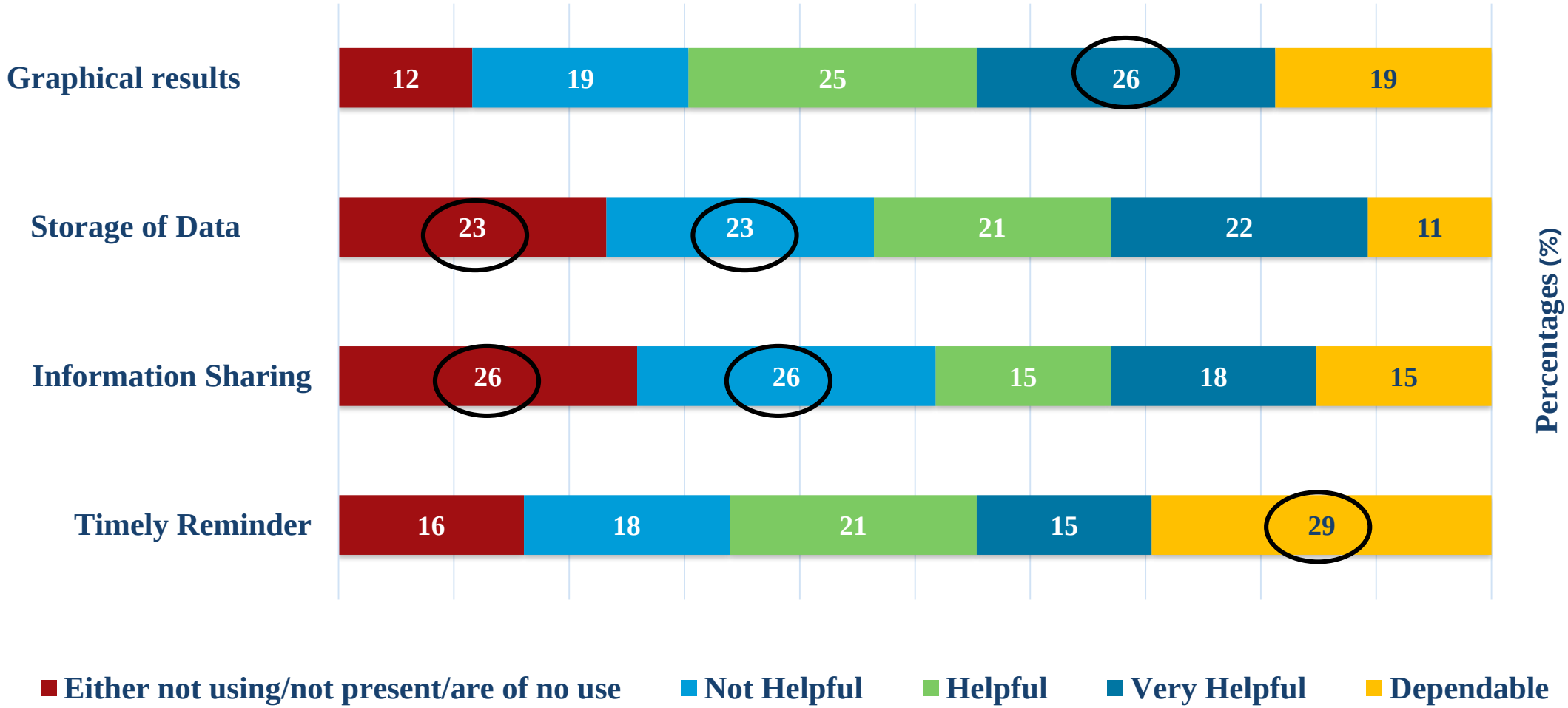
A majority **(92%)** respondents found **App independent and easy to handle**

Challenges faced by the respondents who said “No” (n= 9)



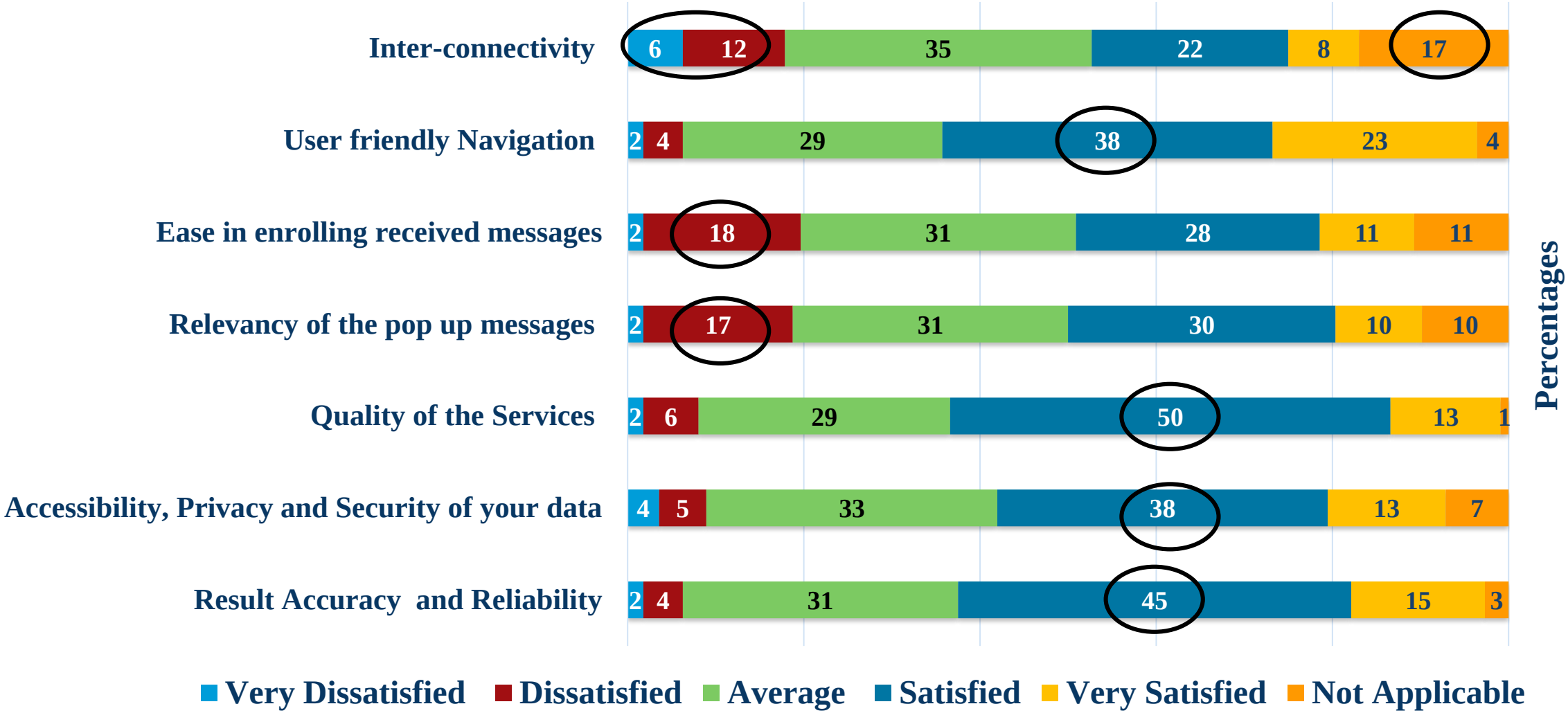
Functionality…

Per cent distribution of Respondents by their perception regarding functionality factors



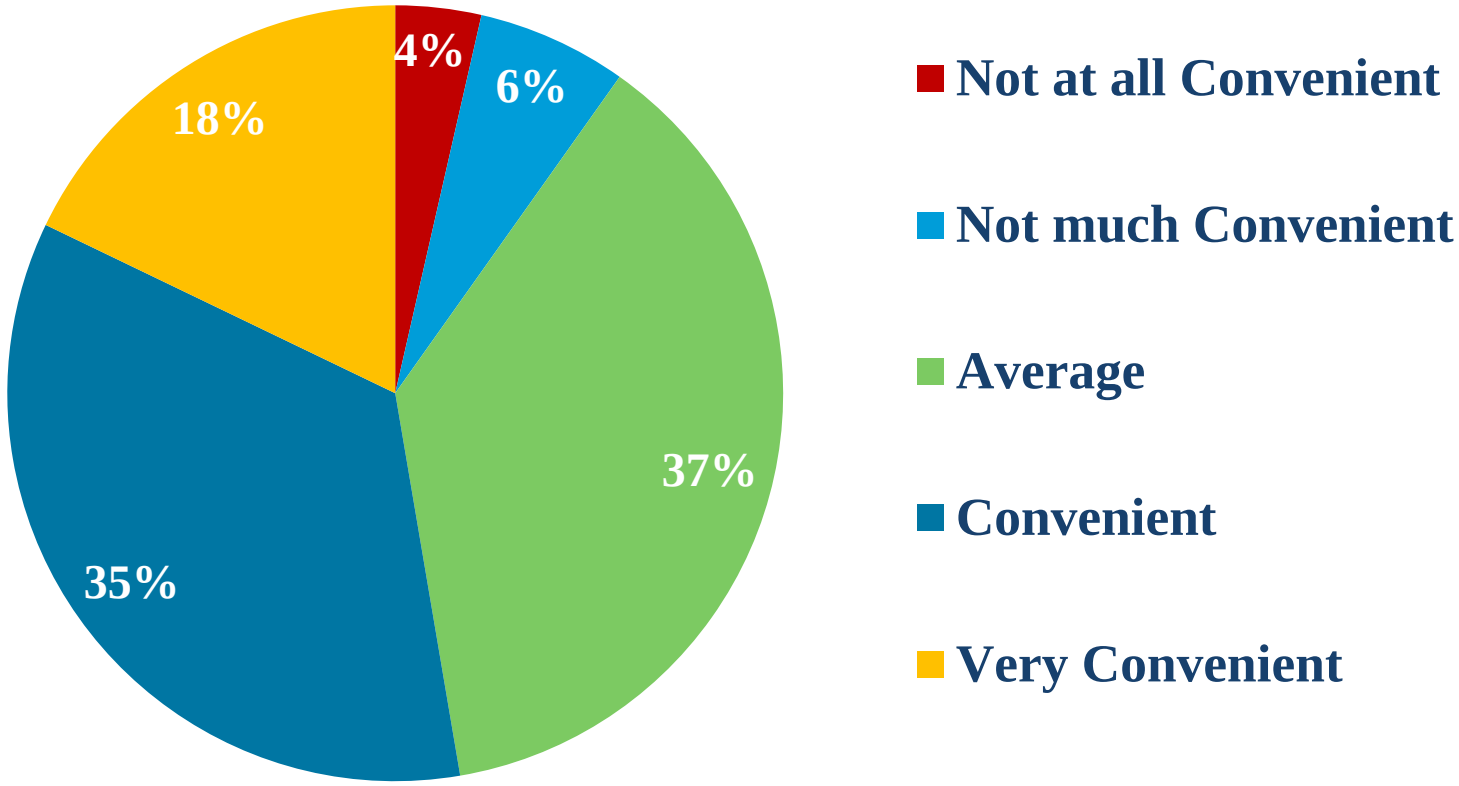
Information Management

Per cent Distribution of respondents by their satisfaction with different criteria of App



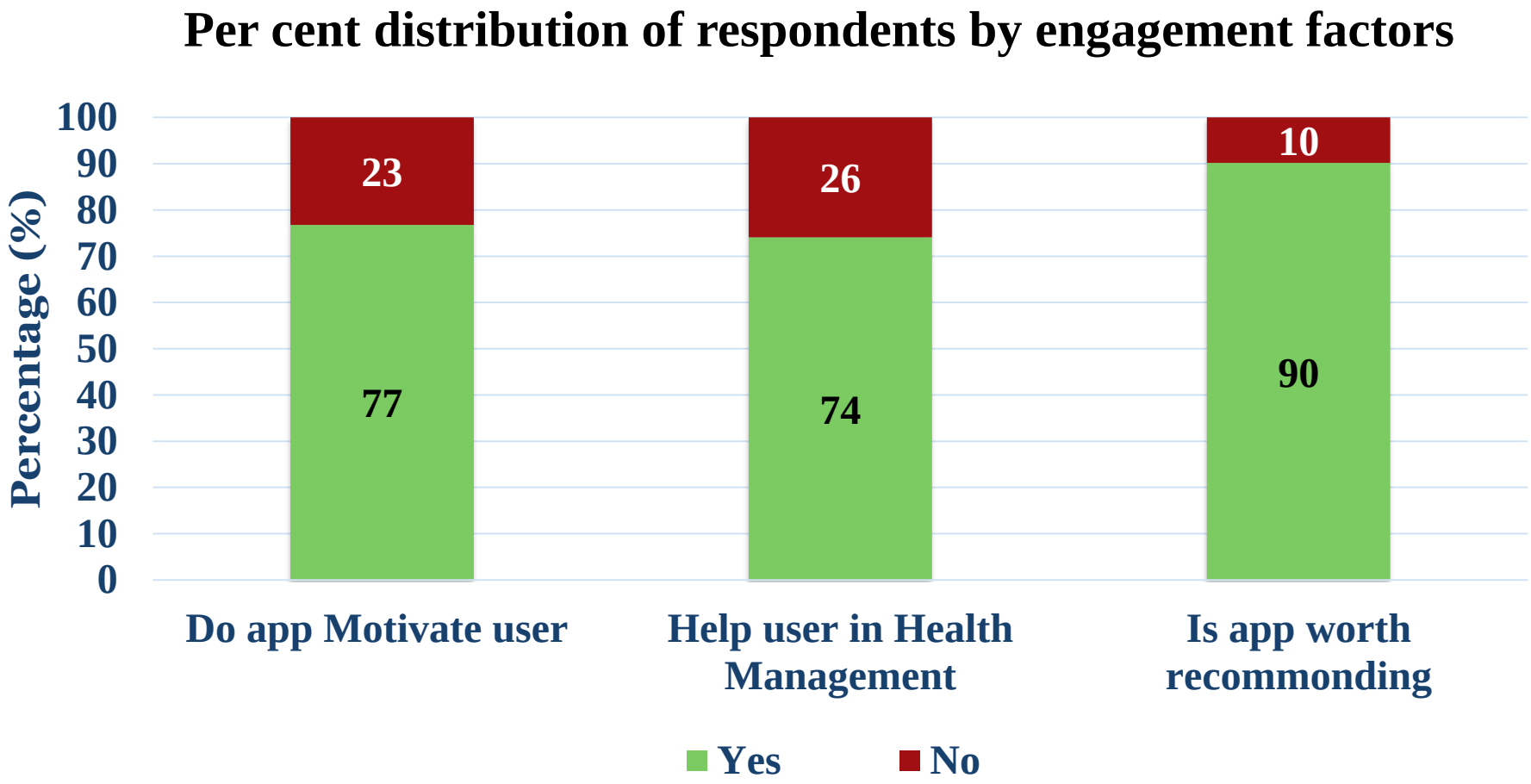
Information Management…

Per cent distribution of Respondents by their Convenience in managing health by using App

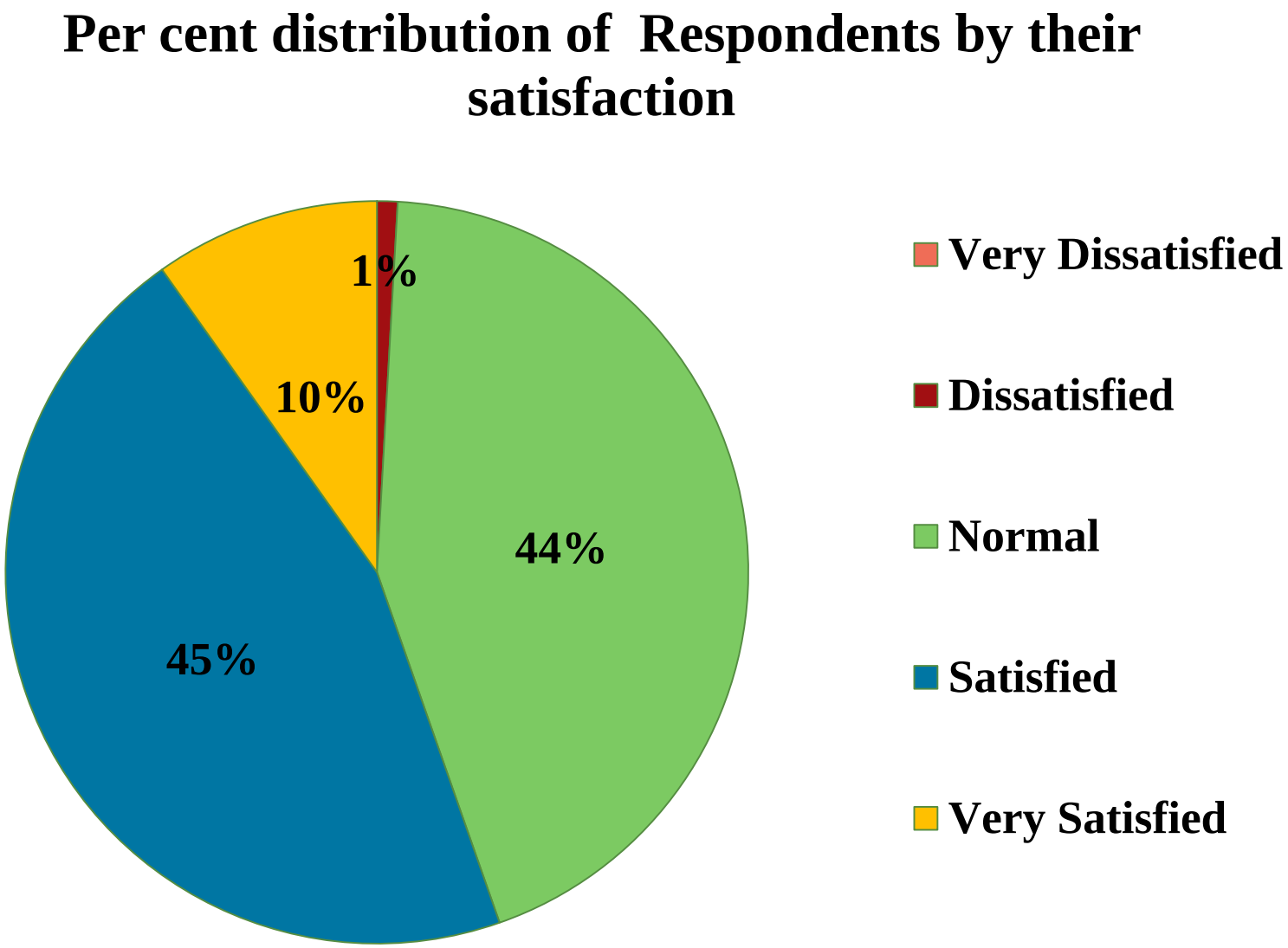


Engagement

Frequency: It was found that **84%** **of respondents** were using their apps **since years and months.** Around **90%** were using as per the requirement on **daily or weekly basis,** depending on the type of the app they were using.

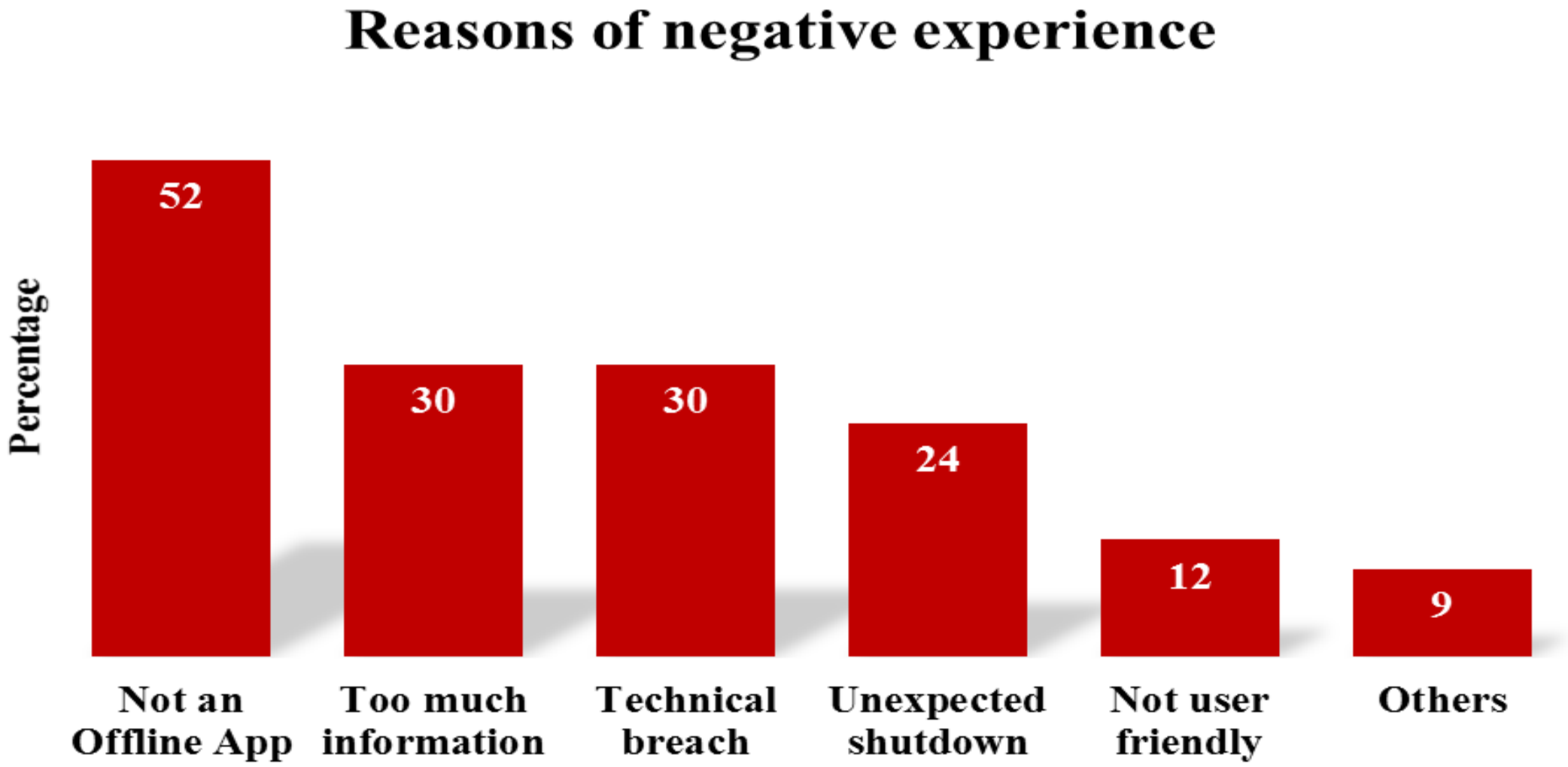


Engagement

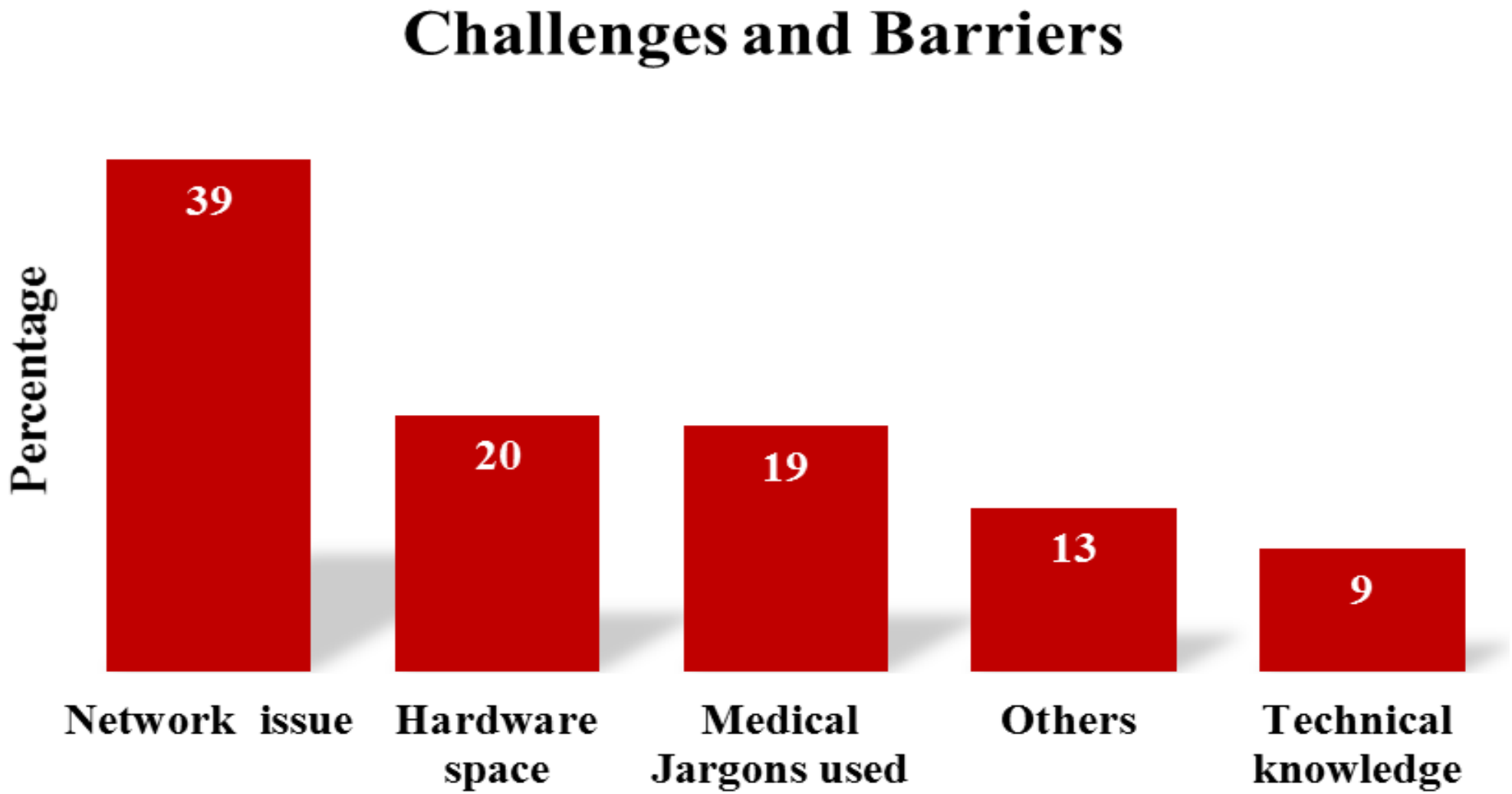

Per cent distribution of Respondents by their satisfaction
1%
10%
44%
45%
Very Dissatisfied
Dissatisfied
Normal
Satisfied
Very Satisfied

Engagement…

Per cent Distribution of Respondents by their Negative Experience (Multiple Responses)



Per cent Distribution of Respondents by their perception on..



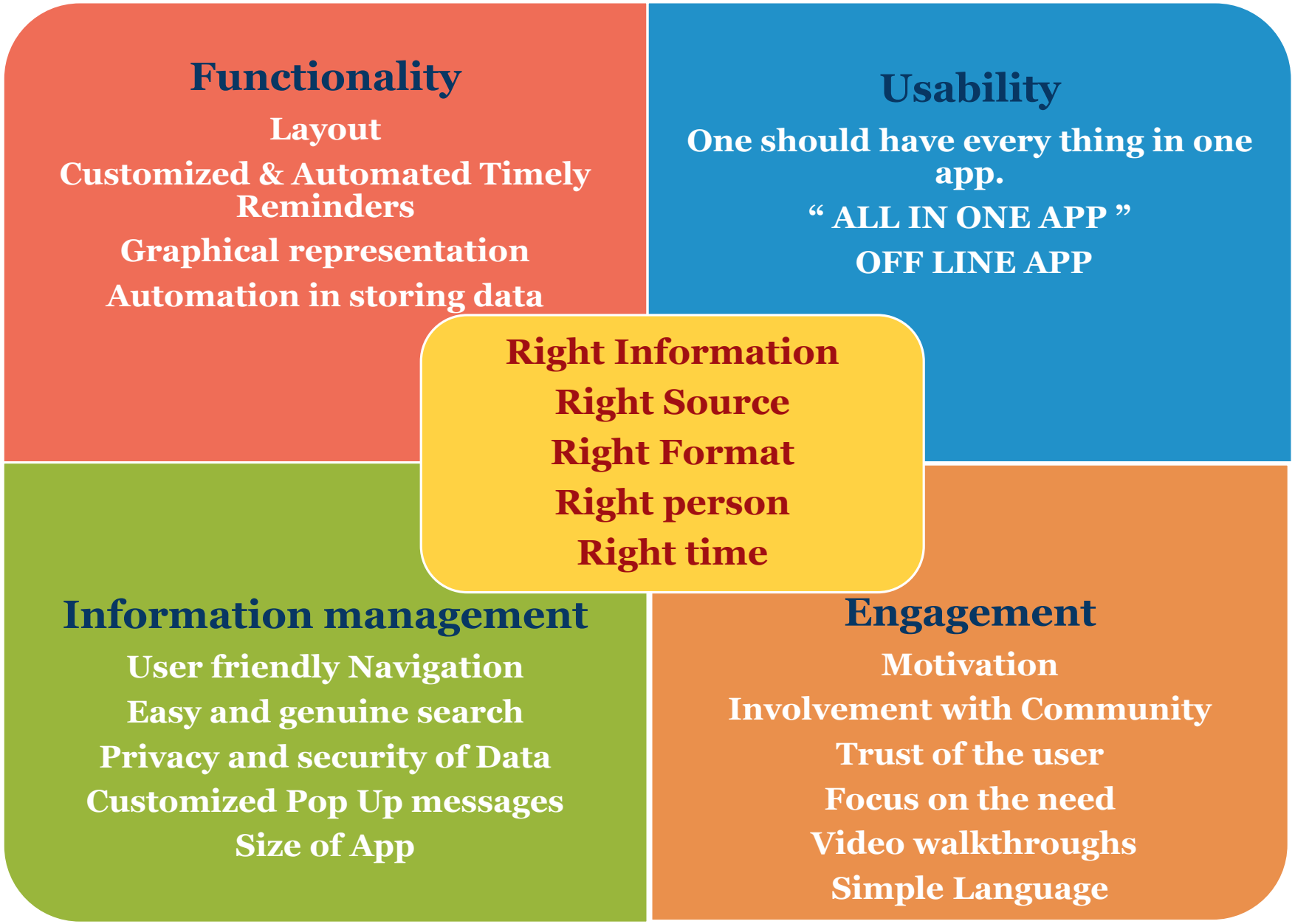
Challenges and Barriers…

Functionality	Information Management	Usability	Engagement
			
1. Manual intervention 2. Extensive search 3. Not an offline app 4. Storage of data	1. Share information 2. Lack of Interconnectivity 3. Data security, Accessibility, privacy 4. Confidentiality 5. Technical issue of hardware	1. Not applicable for India Doctors. 2. Time and Efforts 3. No customized solution	1. Install only when required 2. Forget to use the app 3. Lack of motivation to continue its use 4. Fear to lose smart phone

Conclusions

- Four factors - Functionality, Usability, Information management and Engagement were identified through review.
- Multiple types of health apps related to fitness, diet, physician consultancy, medical, pharmacy etc.
- Most of them were somewhat satisfied with the apps
- Over all they want an all-in-one App to get maximum benefits with minimum efforts.
- Most of the respondents were convenient to manage their health with the help of app, but they wanted some additional features like, automation, user friendly navigation, timely reminder, graphical representation of results, easy language, data privacy, sharing, storage and interconnectivity, motivation, convenience, quality of services, etc. in the app to make the process effortless and easy.
- Need modification on various features like: off-line app, interconnectivity with other apps and providers, user friendly navigation, layout, pop up messages, data sharing, privacy and confidentiality of the data, and data storage.
- Challenges and barriers: network issue, hardware space, medical jargons, technical issues and various other.

What can be done further?




Thank you

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