

# The Growing Value of Digital Health

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**Abstract :** Some of the healthtech of Kerala are iCliniq, QKDoc.com, e-Sanjeevani, Amrita Telemedicine Services, etc. These e-health services are rapidly expanding and growing popular now-a-days due to the covid pandemic. Especially since new covid19 care packs are being launched by the enterprises, even by the government in the form of e-Sanjeevani. Healthtech is not only about services like doctor consultations, they also include fitness training of both the mind and the body. Applications like CureFit, Workout apps, etc. have also gained popularity in society due to our fast-paced life. Mental and physical fitness is one of our biggest concerns, but going to a gym or training center is no longer an option for the majority of the population because of the lack of time in our daily lives. In such situations online apps which work to our convenience are trending. This study analyses the growing value of digital health in Ernakulam City.

## I. Introduction

Healthcare is a major sector of the world's economy which is one of the main stimulants for humanity's development. It is dynamic and advancing at a rapid pace. Healthcare was becoming less of an issue until the recent Covid-19 outbreak which has taken the world by surprise. And in this chaos, digital health administration mobile applications have gained popularity as the public has started to understand its worth. The Indian Constitution makes the provision of healthcare in India the responsibility of the Government, in practice however, the private healthcare sector is responsible for the majority of healthcare in India, and most healthcare expenses are paid directly out of pocket by patients and their families, rather than through health insurance. Government health policy has thus far largely encouraged private-sector expansion in conjunction with well-designed but limited public health programs. In the current era of technological advancement, every sector of the economy is expanding into ecommerce. The healthcare sector is not an exception. As the internet is being used as a platform where anything and everything is available at anytime and anywhere, the healthcare sector and its services have benefitted by expanding its availability. The private sector of not only India, but many different countries has become a part of the online healthcare services. It is now even becoming a threat to traditional hospitals as simple consultations have become effortless. With a fast-growing middle class and increased usage of Internet and mobile broadband, there is a high demand for quality and affordable healthcare in India. Most healthtech start-ups in India are still in their nascent stage, there are larger trends emerging in preventive healthcare, analytics, pathology, emergency services, among other things. The study is regarding the growing value of digital health and it is conducted in Ernakulam City. Due to the increasing trend in the use of health-tech for the assurance of mental and physical healthcare in our fast paced and constricted modern life, this study shows the pros and cons of its utilization. Especially due to the covid pandemic, healthcare applications are becoming more popular and it is in fact very useful. The study combines consumers' reviews and recommendations regarding the e-health sector which includes all aspects such as fitness training, mental training, online doctor consultation and many other such services. It can thus serve as an information source for the public to recognize its worth and for the developers to know customer preferences so as to develop the applications.

## II. METHOD

Research methodology is a way to systematically solve the research problem. The main source of data on which the study is based is primary data. Primary data offers much greater accuracy and reliability. They are firsthand information and are obtained directly from the respondents. They were collected through an interview schedule. For collecting additional data, secondary data are used. It includes journals, magazines, articles and websites. The sample size is restricted to 100, which consists mainly of people from different regions of Kochi. Convenience sampling techniques will be used for collecting the data from different respondents. The respondents are selected by the convenience sampling method. The selection of units from the population based on their easy availability and accessibility to the researcher is known as convenience sampling. The area of the study is confined to Ernakulam city. This study has been undertaken to know the growing value of digital health in Ernakulam city. From the total population only 100 respondents were taken for a sample survey.

## III. OBJECTIVE OF THE STUDY

The following are the various objectives of the study.

1. To understand the preference towards various health care apps.
2. To analyze the factors influencing growth of healthcare apps
3. To find out the satisfaction of respondents towards various health care apps

## IV. RESULTS AND DISCUSSION

**Table 1.** *Mobile healthcare apps used*

|                 | %  |
|-----------------|----|
| Steps set go    | 5  |
| Curefit         | 20 |
| mHealth Kerala. | 15 |
| QKDoc           | 20 |
| Arogya Sethu    | 40 |

From the table 1 it is clear that 40% of respondents use Arogya Sethu app and 20% uses curefit and QKDoc mobile health care apps

**Table 2.** *How often you use mHealth apps in a week*

|                    | %  |
|--------------------|----|
| 1 to 5 times       | 60 |
| 5 to 10 times      | 25 |
| More than 10 times | 15 |

Table 2 shows 60% of respondents uses mHealth apps 1 to 5 times in a week and 25% respondents uses mHealth apps 5 to 10 times in a week. 15% uses more than 10 times in a week.

**Table 3.** *To what degree does mHealth app satisfy customer needs*

|                   | Work well for you |
|-------------------|-------------------|
| Very Satisfied    | 40                |
| Satisfied         | 30                |
| Neutral           | 15                |
| Dissatisfied      | 15                |
| Very Dissatisfied | 0                 |

According to the above table, we can see that 40% of the respondents were able to find extremely satisfiable apps suitable for their needs, whereas 30% found the apps simply satisfiable, 15% had neutral opinions, while 15% were dissatisfied

**Table 4.** *When thinking about getting or using mHealth apps, how important are the following consideration to you*

|                            |                      | Cost | installation | Easy to use | Accuracy | Privacy | Convenience |
|----------------------------|----------------------|------|--------------|-------------|----------|---------|-------------|
| App satisfy customer needs | Important            | 32   | 44           | 44          | 36       | 29      | 40          |
|                            | Slightly Important   | 30   | 33           | 23          | 33       | 33      | 30          |
|                            | Not Important at all | 21   | 12           | 17          | 10       | 18      | 15          |

|                  |    |   |    |    |    |    |
|------------------|----|---|----|----|----|----|
| Very important   | 15 | 6 | 10 | 10 | 10 | 15 |
| Fairly important | 5  | 5 | 6  | 11 | 10 | 0  |

According to the users, a majority (32%) says that cost is an important factor while considering to use mHealth apps while 21% of the users consider the factor insignificant. we can see that many respondents (44%) consider the convenient installation as a significant advantage in the use of mHealth apps while only 12% consider it as an unnecessary measure. As the table shows, 44% of the respondents consider the ease of use of mHealth apps as a necessary trait while 17% does not. According to the survey results, accuracy of the data collected through mHealth apps were considered important by 36% of the respondents while 10% ignored it. 33% of the respondents consider the privacy of their data as a slightly important factor while 18% consider it as needless. As we all know, mHealth apps are mainly used due to their convenience and thus a majority of respondents (40%) have expressed the need for this trait in the use of such apps while a minority (15%) has declared it as unnecessary.

**Table 5.** When using the mHealth apps how satisfied are you with various factors

|                   | Cost | installation | Easy to use | Accuracy | Privacy | Convenience |
|-------------------|------|--------------|-------------|----------|---------|-------------|
| Very Satisfied    | 50   | 48           | 51          | 45       | 30      | 60          |
| Satisfied         | 20   | 28           | 25          | 33       | 20      | 30          |
| Neutral           | 10   | 21           | 20          | 16       | 15      | 10          |
| Dissatisfied      | 10   | 2            | 1           | 4        | 10      | 10          |
| Very Dissatisfied | 10   | 1            | 3           | 2        | 5       | 10          |

According to the survey, it can be interpreted that the majority of the users are satisfied (50%) with the cost levels provided by mHealth apps while a minor 10% is dissatisfied. we can summarize that the ease of installation of mHealth apps is at a satisfactory stage as a majority of 48% of the respondents have said so while 2% seems dissatisfied. The data collected from respondents show that 51% are satisfied with the ease to use trait of online healthcare apps whereas only 1% are dissatisfied. 45% of respondents are content with the accuracy of data collected while 2% is not. As per the survey, it is clear that the privacy of data is maintained properly by mHealth apps as 30% agrees to it while only 10% disagrees. Convenience is a main trait of mHealth apps and more than half of the respondents (approximately 60%) are satisfied with it.

**Table 6.** Have you been using the mHealth apps before pandemic?

|       | %  |
|-------|----|
| Yes   | 25 |
| No    | 47 |
| Maybe | 28 |

According to the survey, it is lucid that the use of mHealth apps have increased post pandemic as only 25% of the respondents used it prior, while 47% started using it after the pandemic.

**Table 7.** Did you start mHealth apps during the pandemic?

|     | %  |
|-----|----|
| Yes | 80 |
| No  | 30 |

This survey shows that the use of mHealth apps increased drastically during the pandemic outbreak as 80 % of the respondents started using the apps after the start of the pandemic.

**Table 8.** Will you continue using mHealth apps even after the pandemic?

|   |     | %  |
|---|-----|----|
| <b>Started mHealth apps during the pandemic</b> | Yes | 70 |
|   | No  | 30 |

As per the survey, it is visible that the impression of online healthcare apps have improved because more than half the respondents (approximately 70%) are willing to continue using them even after the pandemic situation is resolved.

## V. CONCLUSIONS

As inferred, this was a study conducted to analyse the eHealth sector from all aspects and to serve as an information source for further development. According to the data, online healthcare services need more exposure through advertisements and promotions as their convenience and use is not properly known. Other than this setback, mHealth satisfies almost all customer needs properly as it provides good service rates, provides proper service and is convenient. It is also recommended to further develop the convenience in installation and usage of mHealth apps while also improving data security and privacy

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