

User's Perspective about Mobile Fitness Applications

Sakitha Anna Joseph, Reshma Raj K., Sony Vijayan

Abstract: *Being fit physically and mentally is every human being's ultimate desire. This need has been realized by the pioneers behind the development of fitness applications. To serve the diverse needs of users, these apps offer personalization and also offer diet and nutrition besides exercise and workouts. The apps have been a great relief to people who do not have time to visit fitness centers. Also it provides cost free exercise guidelines and diet packages. Many people who have realized the importance of these apps in their daily life have started making use of such apps. This study aims to understand the user's stance on fitness apps available in mobile devices. Basically, the study focuses on the effectiveness of fitness apps in terms of various factors like time, cost and accessibility. Also it digs into the reasons why these apps are preferred over fitness centers. Requisite information regarding various related aspects was collected through primary data from one hundred respondents. The study also alludes on the means to increase and improve the user participation towards using the apps.*

Keywords: *Fitness, Personalization, Mobile Devices, Effectiveness, Time, Cost, Accessibility, Customer Participation.*

I. INTRODUCTION

An application is a program which performs some definite function. It has now become an essential part of the human body. Most of the apps play an important role in one's day-to-day life. The apps have become an indispensable part of human lives. Apps can be accessed using various mobile computing devices which have made the use of these apps at ease. Originally the apps were meant for email, contacts, calendar, etc. but the increased public demand became the reason for its expansion to other areas such as mobile games, GPS services, recharge and ticket booking facilities, fitness services resulting in millions of apps available at various application distribution platforms.

One of the emerging apps is Fitness apps. These apps can be used anywhere at any time for getting fit. They have now become a perfect solution for those people having busy lives. Most of the people are relying on these apps since they provide easy access to them at any time. Apps can help in setting fitness goals, providing workout ideas, tracking calories intake, fitness recipes, and provide progress charts. They also provide personalized advice using the information one provides. These apps are increasingly becoming popular among college students. These students find the apps useful for improving eating habits or following an exercise routine. The use of apps has increased due to various reasons like greater privacy, ease of access, time constraints, and reduced cost as compared to fitness centers.

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FITNESS APPS

Over the past few years, the influence of app technology is increasing which affects the health care system very effectively. The colossal thriving of fitness apps has enhanced since 2014 witnessing more than a fifty percent increase in its usage within a period of six months. As compared to other apps, the fitness apps grow 85% faster than others. The popularity of fitness apps came with its advancing feature of integrating wearable technology which helps users to manage their fitness programs. The number of users for the apps has increased enormously over the past few years. The app helps users to identify their daily activities like running, walking, diet, etc. and analyze how it contributes to their overall fitness. This way the fitness app acts as a personal guide to its users. By and large, one can regard the fitness app as a "personal mentor".

Fitness apps come in four different variants to serve the users diverse needs. They include the following:

1. Activity Tracker – They help in tracking all the daily movements of an individual like walking, jogging, running, cycling, etc., using mobile sensors to help user analyze his actions.
2. Personal Trainer – This app is helpful to individuals who do not have the desire to go for fitness classes and those having busy work schedules. They act as a fitness coach and let users create their training plans. It also provides synchronization with fitness trackers.
3. Diet and Nutrition–This app is best suited to health conscious people who wish to have a balanced diet. It provides users with the nutritional value of the food they consume and also motivates them in losing or gaining weight.
4. Yoga and meditation – The app helps users with their physical and psychological health. It provides relaxation to body and mind and also beats stress.

As compared to fitness centers, fitness apps have more priority because of its many features, the most important being its mobility. These apps help to trace the fitness and well-being of an individual by analyzing their age, height, weight, and gender in customized way. Another important feature of these apps is their ability to record and track users' daily changes in health and fitness which can help in bringing a major progress in their fitness for a long period.

II. RESEARCH METHODOLOGY

For conducting the study, convenient random sampling technique was applied. The primary data was gathered from the users through personnel interview and questionnaires. Secondary data was collected from various website, journals and publications.



III. OBJECTIVES

- To understand user perspectives about fitness apps.
- To understand the impact of fitness application on users.
- To analyze the effectiveness of fitness application on improving user's fitness.
- To study the impact of fitness application to optimize time and cost.
- To understand whether fitness application is preferred over fitness centers.
- To understand the popularity of fitness apps among users.

IV. SCOPE OF THE STUDY

This research is notable as it is helpful in analyzing the effectiveness of the fitness apps in improving the health of the users. Most of the people are conscious of their health and wants to remain fit. However, many find it difficult to go to fitness centers due to various constraints like cost, time and accessibility. As such, the importance of these apps is increasing today. This research helps in finding the reason for choosing these apps over fitness centers and how it improves users' health.

V. STATEMENT OF THE PROBLEM

In this busy society, people find it difficult to dedicate time for their health and the cost of accessing fitness centers are very high. This research is undertaken to study the users' perspectives on users' health. Nowadays the usage of such apps has increased rapidly as everyone is leading a busy life. So this study is very effective as it helps to know how much these apps influence the adult health as well as to find the impact and influence of fitness applications on improving the adult health at low cost.

VI. LITERATURE REVIEW

Joshua H West, P. Cougar Hall, Carl L Hanson, Michael D Barnes, Christophe Giraud-Carrier and James Barrett (2012) in their paper "There's an App for That: Content Analysis of Paid Health and Fitness Apps" conducts a subjective analysis of the written interpretation provided by developers. The study examines the potentiality of apps in influencing the consumer behavior. The more expensive the app, more trustworthy it is. Apps should give more importance to public health behaviors and has to be developed according to such needs.

Brad Millington (2014) in his paper "Smartphone Apps and the Mobile Privatization of Health and Fitness" conducts an extensive research on the well-known smartphone fitness apps. It points out how the apps help users to associate with the rest of the world. It also concludes that the apps place great emphasis on activity tracking to promote fitness.

Juliana Chen, Janet E Cade and Margaret Allman-Farinelli (2015) in their paper "The Most Popular Smartphone Apps for Weight Loss: A Quality Assessment" analyses the quality of top 200-rated weight-loss apps available for smartphone users. Those apps available in market were less than standard quality and Behavior Change Technique incorporation was also limited.

Steven S. Coughlin, Mary Whitehead, Joyce Q. Sheats, Jeff Mastrotonico, and Selina Smith (2016) in the paper "A Review of Smartphone Applications for Promoting Physical Activity" focuses on analyzing the fitness apps to determine

whether they help in tracking physical activity and promoting health. The study reveals that respondents of different ages prefer smartphone apps for their physical activity as it favorably help in coaching and motivating them. Lynn Katherine Herrmann and Jinsook Kim (2017) in their paper "The fitness of apps: a theory-based examination of mobile fitness app usage over 5 months" focused on the effectiveness of fitness apps by examining three fitness apps for a period of 5 months. The apps were examined based on the theory of planned behavior (TPB) which was done by a survey and measured by t-test, sign test, fisher's exact tests. They found that the intensity of usage decreased over time as the participants were not comfortable in using the app. They concluded that the app should focus more on usefulness and ease of use in order to increase the adherence and effectiveness of apps.

Maria D. Molina, and S. Shyam Sundar (2020) in the paper "Can Mobile Apps Motivate Fitness Tracking: A Study of Technological Affordances and Workout Behaviors" tries to examine whether the fitness apps drives the user to maintain workout regime. The study examined 682 profiles for analyzing and disclosing the use of fitness apps. The study includes a content analysis for analyzing the pivotal qualities which helps in retaining the users in a long run.

VII. DATA ANALYSIS & INTERPRETATION

Table 7.1 Gender of the Respondent

	Number of Respondent	Percentage
Male	28	56.0
Female	22	44.0
Total	50	100.0

Source: Primary Data

Of the total respondents, 56% are male and 44% are female. It shows that male respondents are more inclined towards using the fitness apps as compared to female respondents.

Table 7.2 Age of the Respondent

	Number of Respondent	Percentage
20-35	35	70.0
35-45	9	18.0
Above 45	6	12.0
Total	50	100.0

Source: Primary Data

The table shows that of the total respondents, 70% belongs to 20-35 years category. The rest are grouped into two categories that are respondents with age group of 35-45 years and above 45 years comprising 18% and 12% respectively of the total respondents. This clearly indicates majority of the users are young adults.

Table 7.3 Preference for Fitness

	Number of Respondent	Percentage
Always	25	50.0
Often	10	20.0
Sometimes	12	24.0
Seldom	3	6.0
Total	50	100.0

Source: Primary Data

In the table above, it is evident 50% of the total respondents prefer to be fit always, followed by 24% preferring to be fit sometimes, 20% prefers to be fit often and remaining 6% prefers to be seldom fit. This shows that a major group of the total respondents prefer to be always fit and healthy while only a small percent are not considering being fit.

Table 7.4 Type of App Preferred

	Number of Respondent	Percentage (%)
Diet & Nutrition	14	28
Workouts	17	34
Both	19	38
Total	50	100

Source: Primary Data

The above table shows the users' preference of app they download. It can be seen that out of the total respondents, 38% prefer apps having diet & nutrition and workouts, 34% prefer workout apps and 28% interested in diet & nutrition apps.

Table no:7.5 Most Important Element in a Fitness App

	Number of Respondent	Percentage (%)
Workout Routines	15	30
Recipes	8	16
Calorie Counting	10	20
Progress Charts	14	28
Running Tracker	3	6
Total	50	100

Source: Primary Data

The above table displays elements which respondent feel as most important in a fitness app. Out of the total respondents, 30% find workout routines being most important, followed by progress charts (28%), calorie counting (20%), recipes (16%) and running tracker (6%). This clearly shows that most of them feel workout routines and progress charts being most important in a fitness app.

Table no:7.6 Duration of App Usage

	Number of Respondent	Percentage (%)
More than 5 years	1	2
3 - 5 years	4	8
1 - 3 years	11	22
0.5 - 1 year	15	30
3 - 6 months	2	4
Less than 3 months	17	34
Total	50	100

Source: Primary Data

In the table above, out of total respondents 34% have been using the apps for not more than 3 months, 6 months to one year (30%), 1- 3 years (22%), 3-5 years (8%), 3-6 months (4%) and more than 5 years (2%). This clearly indicates the popularity of the fitness apps. Majority of the respondents have started using the apps recently.

Table no:7.7 Whether all Instructions are Followed

	Number of Respondent	Percentage (%)
Always	16	32
Often	16	32
Sometimes	13	26
Seldom	2	4
Never	3	6
Total	50	100

Source: Primary Data

The table shows an equal percentage (32%) of the respondents always and often follows all the instructions of the app. About 26% of the respondents follow sometimes, 6% do not follow at all and 4% are seldom followers.

Table no:7.8 Time Spent on Apps for Fitness

	Number of Respondent	Percentage (%)
Daily	20	40
Weekly	14	28
Monthly	4	8
Frequently	12	24
Total	50	100

Source: Primary Data

The above table point out how often respondents use fitness app to perform their fitness activities. It can be seen that out of the total respondents, 40% use the app daily to do their fitness activities, 28% are weekly users, 24% use the app frequently and 8% are monthly users.

Table no:7.9 App Usefulness Rating

	Number of Respondent	Percentage (%)
Very Useful	17	34
Useful	23	46
Neutral	8	16
Somehow Useful	2	4
Total	50	100

Source: Primary Data

From the above table, it is evident that majority of the respondents (46%) find the app useful for their practice, followed by those who find it very useful (34%), neutral (16%) and somehow useful (4%).

Table no:7.10 Initial Reason for preferring Fitness Apps

	Number of Respondent	Percentage (%)
More Convenient than going to gym	14	28
Cheaper than gym	11	22
Easy to Engage	13	26
Higher Privacy	12	24
Total	50	100

Source: Primary Data

In the given table, it is clearly seen majority of the respondents (28%) preference for fitness apps is because of its convenience as compared to going to gym.

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The other constituents are easy to engage (26%), higher privacy (24%) and cheaper than gym (22%).

Table no:7.11 Effectiveness of App Used

	Number of Respondent	Percentage (%)
More Effective	9	18
Effective	30	60
Neutral	9	18
Slightly Effective	2	4
Total	50	100

Source: Primary Data

The table indicates 60% of total respondents find fitness app effective, followed by an equal percentage (18%) finding it more effective and neutral and 4% finds it being slightly effective.

Table no:7.12 Main Training Program for Fitness

	Number of Respondent	Percentage (%)
Dieting	5	10
Aerobic Training	12	24
Cardio Exercise(Yoga, Zumba)	13	26
Workouts & Calorie Counting	20	40
Total	50	100

Source: Primary Data

The table depicts respondents' main training program for fitness. It can be seen that 40% of the total respondents prefer workouts & calorie counting. The other segments are cardio exercise program (26%), aerobic training (24%) and dieting (10%).

Table no: 7.13 How App help in achieving Fitness Goal?

	Number of Respondent	Percentage (%)
Convenience of Access	26	52
Personalization	11	22
Greater Privacy	6	12
Easy to Engage	7	14
Total	50	100

Source: Primary Data

The table shows ways in which apps help the respondents in achieving their fitness goal. It is evident that majority of the respondents (52%) agree that convenience of access being a factor which helps them to achieve fitness goal. The other segments are personalization (22%), easy to engage (14%) and greater privacy (12%).

Table no:7.14 Time saving through Use of Fitness Apps

	Number of Respondent	Percentage (%)
Strongly Agree	14	28
Agree	26	52
Neutral	10	20
Total	50	100

Source: Primary Data

The above table depicts whether fitness app usage helps in saving time of the respondents. Out of the total respondents, it can be seen that 52% agree to it in saving time, 28% strongly agree and 20% feeling it neutral.

Table no: 7.15 Alternatives Apps provide compared to Fitness Centers

	Number of Respondent	Percentage
Personal Advice	12	24.0
Exercise Guidance	23	46.0
Looking for more professionals	7	14.0
Others	8	16.0
Total	50	100.0

Source: Primary Data

The above table shows additional features apps provide when compared to fitness centers. Of the total respondents, majority (46%) agree that fitness apps provide adequate exercise guidance than fitness centers. The other categories of features are personal advice (24%), others (16%) and looking for more professionals (14%).

Table no:7.16 Are Fitness Apps cheaper than Fitness Centers

	Number of Respondent	Percentage
Strongly Agree	20	40.0
Agree	20	40.0
Neutral	9	18.0
Disagree	1	2.0
Total	50	100.0

Source: Primary Data

The above table indicates an equal percentage of the respondents(40%) strongly agree and agree the fitness apps are cheaper than fitness centers, followed by 18% feeling it neutral and 2% disagreeing to fitness apps being cheaper than fitness centers.

Table no: 7.17 Negative Impact on Health after App Usage

	Number of Respondent	Percentage
Yes	15	30
No	35	70
Total	50	100

Source: Primary Data

From the above table, it is evident 70% of the total respondents did not have any bad impact on their health after the usage of fitness apps while 30% had a negative impact through the use of these apps.

Table no:7.18 Referring apps to others

	Number of Respondent	Percentage
Yes	36	72.0
No	14	28.0
Total	50	100.0

Source: Primary Data

The table indicates majority (72%) are interested in referring the app to others and only 28% prefer not to refer the app to others.

VIII. FINDINGS

From the study, we found that majority of the respondents who use fitness apps are young adult males in the age group of 20-35. It shows that men are more interested in remaining fit as compared to women.

About 30 percent respondents prefer apps with focus on workouts than diet and nutrition as an important aspect to fitness.

Even though half of the respondents like to remain fit always, only 32 percent follow all the instructions of the app frequently and always.

It is found that it has been only 3 months since 34 percent of the respondents have started using these apps. This shows the popularity of fitness apps have increased in recent times.

About 40 percent of the respondents use the app on a daily basis and 28 percent use it on weekly basis to do their fitness activities. And 60 percent respondents find the app that they are using effective. This indicates the influence of the app on users.

Most of the respondents find convenience of access of apps as the main cause for choosing the app initially and also for achieving their fitness goal.

The analysis shows that majority of the respondents agree to apps being cheaper than fitness centers and helps in saving their time.

The study shows that about 46 percent of respondents agree that apps provide ample exercise guidance at low cost than fitness centers.

Almost 70 percent respondents did not have any negative impact on their health after using the app and would like to refer the app to others.

IX. SUGGESTIONS

More awareness programs have to be conducted to increase the usage of these apps.

Advertisements through various social media platforms should be made to increase the popularity of the apps.

Motivating the users by giving daily notifications on success stories or fitness quotes can increase the continual use of the apps. Providing the apps free of cost or low-priced can increase its users. Regular updates have to be made to workouts to increase the efficiency of its usage.

Providing exercise guidance along with videos is another way to enhance its efficiency. Enhancing the flexibility of apps with regard to automatic tracking of activity and well defined features.

X. CONCLUSION

The study addresses on the users outlook towards the smartphone fitness apps and its influence in promoting health. After conducting the study, it is seen that most of the respondents consider that using fitness apps is worthwhile. Fitness has become a craze among youngsters and adults. This is evident from the study as the majority of the app users are young adults. Most participants agree that the fitness apps are highly effective in providing facilities to attain their fitness goals with less cost, time and easy accessibility. The apps seem to have greater positive impact on the users' health when it is used regularly. This positive result also enhanced the popularity of apps as the satisfied users suggest the apps to others.

But these fitness apps suffer from many drawbacks which could hinder its growth. Providing timely updates is one of the major problems among most of the apps. Another problem is the advertisements which pop up while doing the workout videos. The developers should consider revising the features of apps to enable users adapt easily to the workout programs and videos provided in the apps. They should focus more on the users' preferences by conducting a survey to get feedback from its users. Also the developers should focus on improving the apps to adjust to different exercise behaviors of the participants.

Limitations

There are several limitations in conducting this research. Some of them have a considerable effect on the study while others do not have much effect. The significant limitations are as follows:

1. Sample Size: The number of participants in the study is limited as the fitness apps have not become popular among people and also the study covers only a limited geographical area.

2. Unexplored area of research study: There are only a limited number of research studies done on this field. Many articles are available related to this topic but they are not able to provide a direct relationship with this research.

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