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Usage of digital marketing and medical mobile application in online medical consulting services during pandemic with reference to consumers in Chennai city

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Abstract---Digital is paving the way into the healthcare industry, and in recent days, digital technologies have been used to help the public-health response to COVID-19 all over the world. The medical sector is being forced to incorporate digital technology into medical treatment in order to give better accessibility and flexibility to the general population. It also includes the accessibility of open data about health, treatment, complications, and current scientific research advances. Because of the widespread of COVID – 19, medical industry urged to adopt digital marketing and online mobile application to provide best consulting service as well as ensuring that every patient continues to receive proper consultation. This sudden shift from offline to online engages the medical practitioner to deliver suitable services without constraints. This study has been done with 73 responses through random sampling method. The chi-square test, percentage analysis and correlation test were utilized as statistical techniques.

Keywords---digital, technologies, medical industry, COVID-19, constraints, mobile, application, online.

Introduction

Even the medical sector failed to respond to various types of medical emergencies when entire countries and economic blocks shut down due to COVID-19. It had to adjust to a culture where individuals were afraid to leave their homes or have any kind of contact with strangers, especially medical patients, who were

disproportionately affected by the pandemic due to shutdowns and quarantine regulations. Health professionals and physicians have been more affected in terms of providing online consultations as a result of this huge change from physical to quick adoption of virtual and digital techniques in medical consulting. Many people believe that after the pandemic, the acceptance of digital consulting will continue. The goal of health care marketing is to learn about and understand the requirements and desires of potential patients so that you can provide the best service possible. The Internet, e-mail, and social media have an advantage of less expensive than direct marketing, but they also allow you to promote a service to virtual customers, breaking down barriers of distance and making them aware of what you have to offer at any time and in any location. Hence, here the research examines how digital marketing and digital mobile applications impact the medical industry as, it respond to a never-before-seen pandemic, as well as the organizational, technological, and environmental challenges they may encounter during the COVID - 19 pandemic. The following is a summary of the article. It starts with an objectives and problem that has been recognized and a review of the literature to see how the constant lockdown has hampered the medical business. The research methods employed in this study will be discussed next. After that, the analysis, discussion, suggestions, and conclusions are provided.

Objectives

- To know the hindrances of virtual consulting services through mobile digital applications.
- To find most used mobile digital platform mode on virtual consulting during pandemic.
- To analysis whether the digital marketing helps the consumers to find the best online medical consulting services or not.
- To analysis the relationship between frequencies of consumption of virtual mobile medical consulting services and their advantages and disadvantages.

Significance of the study

The study looks on the usability of digital mobile apps for buying pharmaceutical drugs and getting virtual consultations, as well as their awareness among users. During the COVID – 19 pandemic, this study investigates why patients and medical practitioners used online virtual consultation and mobile applications for their medical-related activities. The goal of this study is to see how well individuals are aware of virtual medical consultations and mobile applications, as well as if digital marketing assisted them in finding the right medical app and doctors via internet. This article also tries to reveal the real practical difficulties on the utilization of digital mode in medical industry. It also intends to investigate how clients feel about their online comfort and ease.

Statement of problem

Covid – 19 pandemic is an illness to the globe caused by the corona virus. The global healthcare business is facing increased hurdles as a result of the 2019 pandemic. However, in many developing nations, including India, there is a

scarcity of knowledge concerning these issues. During the Covid – 19 lockdowns, many medical patients were unable to reach medical practitioners and doctors immediately for consultation. Furthermore, many patients are unaware of the existence of medical mobile applications or how to use them. This study attempts to determine what are the primary motivators for individuals to use online medical consultation applications, as well as to determine if digital marketing tactics (digital marketing platform) were efficient in attracting customers during the Covid - 19 period.

Literature review

(Radu G et al., 2017) The study's findings revealed that in order to grow a firm, digital techniques of advertising medical care services are required. In this scenario, strategic thinking meant acquiring new patients and providing them with high-quality health-care services, ensuring their contentment and increasing the likelihood of their referring the health facility to others. This study discovered that social networking sites have an essential influence in promotion. This high response rate was most likely due to targeted marketing services. Almost every new patient who filled out the form will continue to be a patient of our clinic in the future. (Gupta A, Tyagi M, Sharma D., 2013) this article revealed that the website will only be successful in terms of marketing if it is incorporated into marketing plans. Employees, brochures or banners, as well as other ads in the media, should first persuade the patient to visit the website. Furthermore, marketing managers can create offers, promotions, and discounts that can be accessible via the website and will entice potential patients to visit the medical facility. (Myers and Newman., 2007) Based on the identified market categories and value streams, we utilized the e3-value technique to illustrate the conventional and digital healthcare ecosystem. Generic jobs were created for similar market groups. Expert interviews with healthcare specialists or founders of digital health firms were performed in Germany using a semi-structured method.

Research Methodology

73 Respondents were chosen from a pool of participants using a basic random sample approach. Both primary and secondary data were used in this research investigation. The questionnaire was used to collect information from the respondents. The study relies heavily on primary data. Secondary data was acquired from newspapers, journals, and the internet, among other places. The SPSS 20 software is used to analyze the data. The chi-square test, percentage analysis and correlation test were utilized as statistical techniques.

Limitation of the study

- The study is done with reference to Chennai City so it is difficult to study the large size population.
- The time is also a major constrain towards this research, so the finding is not able to generalize in all areas.
- The data is collected only from the end – users who consume online medical consulting service and digital mobile applications

- The opinion of medical practitioners about digital marketing involve in medical consulting is ignored.

Hypothesis of the study

- **H₀**= There is no significant difference between virtual medical consulting through mobile application and frequency to use the same.
- **H₀**= There is no significant relationship between Gender of the consumers and Influence by any digital advertisement regarding virtual medical consulting services during pandemic
- **H₀**= There is no significant relationship between frequency to use digital mobile application for medical consulting and the reasons to choose the same during COVID – 19 in terms of saving time.

Data Analysis

Table 1
Demographic variable of respondents

Demographic factors	Options	Frequency	Percent
Age	15-25	51	69.9
	25 -35	12	16.4
	35 -55	10	13.7
Qualification	12th	12	16.4
	UG	44	60.3
	PG	17	23.3
Income	Below 30000	20	27.4
	30000 – 50000	29	39.7
	50000 Above	24	32.9
Gender	Male	41	56.2
	Female	32	43.8
Occupation	Student(Scholars)	49	67.1
	Employee	14	19.2
	Businessman	03	4.1
	Homemaker	07	9.6
Area of residence	Urban	40	54.8
	Rural	14	19.2
	Sub Urban	19	26

Primary data

Table 1 shows that majority (69.9 per cent) of the respondents belong to the age group of between 15 – 25 years, majority (56.2 per cent) of the respondents are male, majority (60.3 per cent) of the respondents are finished their Under Graduate degree, majority (67.1 per cent) of the respondents are student, majority (39.7percent) of the respondents earn monthly family income between 30000 – 50000 and Majority (54.8) of the respondents are residing in urban area.

Do you think digital marketing helps you to find the various possible medical consulting services and medicine purchasing applications?

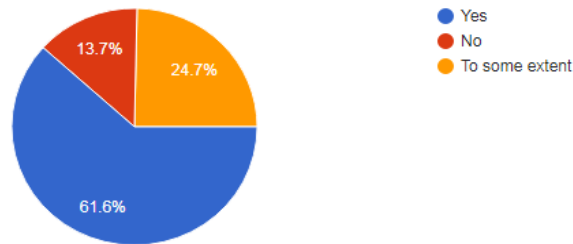


Figure 1. Usage of digital marketing to find proper consulting applications

Interpretation

This study gives a clear picture of the table showing that majority of the respondents found the best medical consulting application through digital marketing during Covid – 19 pandemic and the response were 61.6%. Some of the people did not rely on digital marketing to find the best mobile applications during Covid – 19 lockdown and few of them some extent depends on digital marketing ads to find proper medical consulting application and the responses were 13.7% and 24.7% respectively.

Which social media means helped you to find the online health care service during lock down?

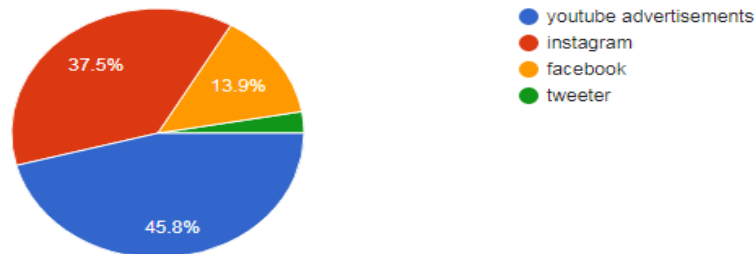


Figure 2. Social media helps to find the online health care services

Interpretation

The study shows that the students mainly consider the Youtube advertisements are very effective and helpful to consumers to find out the online medical consulting mobile applications and the response for the same was 45.8% followed by Instagram was 37.5%, Facebook was 13.9% and Tweeter was 2.8%.

What kind of medical consulting applications you are using in COVID- 19 lockdown?

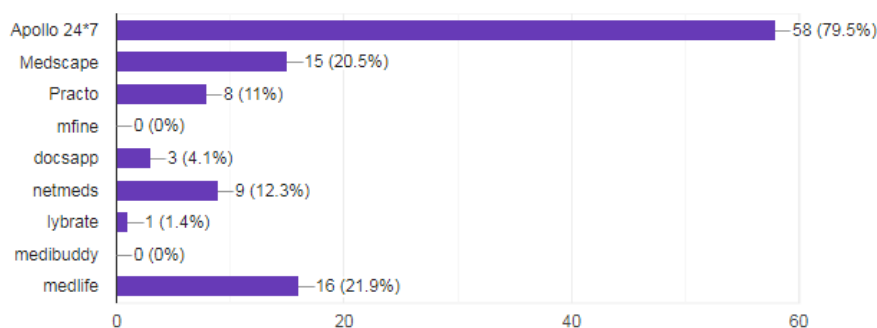


Figure 3. Usage of Medical Consulting Application during Covid – 19

Interpretation

From the above chart and table, many consumers have the awareness about the medical mobile application to some extent and Apollo 24*7 has the highest frequency of response from the random consumers and the response was 79.5% and Since, some of the applications have “NIL” responses, it shows that application developer must focus on more digital marketing activities like advertisement, private mailing ads etc., to capture the minds of the consumers.

Hypothesis Testing

Chi – square test for frequency to use digital mobile application for medical consulting and reason to choose the same (saving time)

H₀ = There is no significant relationship between frequency to use digital mobile application for medical consulting and the reasons to choose the same during COVID – 19 in terms of saving time.

H₁ = There is a significant relationship between frequency to use digital mobile application for medical consulting and the reasons to choose the same during COVID – 19 in terms of saving time.

Table 2

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.371 ^a	6	.497
Likelihood Ratio	5.811	6	.445
Linear-by-Linear Association	.479	1	.489
N of Valid Cases	73		

a. 6 cells (50.0%) have expected count less than 5. The minimum expected count is .03.

Interpretation

The significant value 0.497 is more than 0.05 which is significant at 5% level. It infers that the null hypothesis is accepted and the alternative hypothesis is rejected. There is no significant relationship between frequency to use digital mobile application for medical consulting and the reasons to choose the same during COVID – 19 in terms of saving time. Hence, in order to save time (reason) consumers do not rely on digital mobile applications for medical consulting services during Covid – 19 pandemic.

Correlation test for influence of digital advertisement and gender of consumers

H₀ = There is no significant relationship between Gender of the consumers and Influence by any digital advertisement regarding virtual medical consulting services during pandemic

H₁ = There is a significant relationship between Gender of the consumers and Influence by any digital advertisement regarding virtual medical consulting services during pandemic

Table 3

Correlations

		Gender	Influence of ads
Gender	Pearson Correlation	1	-.001
	Sig. (2-tailed)		.996
	N	73	73
Influence of ads	Pearson Correlation	-.001	1
	Sig. (2-tailed)	.996	
	N	73	73

Interpretation

The significant value of 0.999 is more than 0.05 which is significant at 5% level. It infers that the null hypothesis is accepted and the alternative hypothesis is rejected. There is no significant relationship between Gender of the consumers and the Influence by any digital advertisement regarding virtual medical consulting services during pandemic. Hence, consumers are not attracted through digital advertisement for virtual consulting services based on their gender.

Chi – square test for frequency to use digital mobile application for medical consulting and disadvantages (not suitable for heavy injuries)

H₀ – There is no significant difference between disadvantages of virtual medical consulting through mobile application and frequency to use the same.

H₁ – There is a significant difference between disadvantages of virtual medical consulting through mobile application and frequency to use the same.

Table 4

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	14.074 ^a	6	.029
Likelihood Ratio	15.874	6	.014
Linear-by-Linear Association	.571	1	.450
N of Valid Cases	73		

a. 6 cells (50.0%) have expected count less than 5. The minimum expected count is .04.

Interpretation

The significant value 0.029 is more less 0.05 which is significant at 5% level. It infers that the null hypothesis is rejected and the alternative hypothesis is accepted. There is a significant difference between disadvantages of virtual medical consulting through mobile application and frequency to use the same. Hence, medical consulting through mobile application is not suitable for heavy injuries and the frequency level of usage also gets affect due to this. So, people are using mobile application for virtual consulting services in less frequency.

Conclusion

Although the fact that many people had no prior experience with online medical consulting services or the digital applications associated with it prior to the pandemic lockdown, they were found to be more enthused about it due to its multiple benefits. According to this survey, 62 percent of end-users feel that digital marketing is the greatest method to identify the finest mobile apps for online medical consulting services, and that YouTube is the best type of digital marketing for any company. Later, it turned out to be the other way around, as people began to experience issues such as absence of physical presence, not suitable for heavy injuries; difficulties to evaluate the medical practitioner. People are not aware of much digital mobile application regarding medical consulting, since, many digital mobile application have arrived in market. As a mobile application maker, they should use the digital marketing techniques means to capture the minds of the consumers. While entry of new industry into digital technology, some proper regulation is required to avoid malpractices and crimes, as being medical industry is a crucial industry deals with the life of individuals.

The regulations regarding digital usage should be made as particular by the government.

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