

**Summer Training at
MediaMedic Communications Pvt. Ltd., Mumbai**

**Study on Awareness, Usage and Perception of Doctors towards Medical
Application in Mumbai City**

**By
Abhinav Sharma**

**Under the guidance of
Dr. Ashok Peepliwal**

**MBA Pharmaceutical Management
2017-2019**

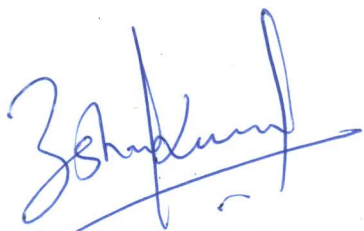

School of Pharmaceutical Management
**The IIHMR University, Jaipur
2018**

CERTIFICATE

This is to certify that **Abhinav Sharma** has undergone summer training at **Mediamedic Communications** from **April 01, 2018 to May31, 2018**.

The candidate himself completed the project assigned to his during summer training. His approach to the project was sincere and proactive. This summer training is partial fulfillment of the course requirement recommended for the award of MBA in Pharmaceutical Management.

I wish him all the success in his future endeavors.



Dr Ashok Peepliwal

Associate professor



Dr. Sandeep Narula

Dean In charge

School of Pharmaceutical management

IIHMR University, Jaipur



18th June, 2018

TO WHOMSOEVER IT MAY CONCERN

Sub.: Internship of Mr. Abhinav Sharma with our organization.

This is to certify that Mr. Abhinav Sharma, a student of IIHMR University has completed his internship with us from 1st April 2018 to 31st May 2018.

He undertook '*A Study on Awareness, Usage and Perception of Doctors towards Medical Mobile Applications in Mumbai City*' as his summer internship project and has successfully completed the requirement of the project.

We wish him the very best for his future endeavor.

Thanking You,

For MediaMedic Communications Pvt. Ltd.;

Dinesh Chindarkar

Co-Founder & Director

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Acknowledgement

We humbly owe the completion of this Summer Internship work to the almighty and our family whose love and blessings will be with us in every movement of our life .

We would like to extend our sincere gratitude to **Mrs. Priti Mohile** (Co-Founder & Managing Director) and Mr. **Dinesh Chindarkar** (Co-Founder & Director) for providing us an opportunity to learn and develop professionally.

We also extend our gratitude to our Project Coordinator **Mr. Athar Siddiqui** (Group Account Manager) for his valuable suggestions, support and keen interest throughout the study that helped us in completing this work. We thank him for the freedom of thought, expression and trust which was greatly bestowed upon us. We would also like to pay our gratitude to the entire team of Media Medic Communications Pvt. Ltd. who has helped us by sparing their valuable time and extended their support and guidance to help us achieve our task successfully. A special and sincerer thanks to our mentors from The IIHMR university **Dr. Ashok Peepliwal** for giving us their valuable time and guiding, supporting us throughout this training.

We are very much indebted and thankful to all the Doctors for their participation and cooperation. Last but not the least we would like to thank our family for supporting and standing with us in successfully completing the project.

Abhinav Sharma

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Organization Profile

MediaMedic Communications Pvt. Ltd. is an 'award winning' firm that provides insights-driven strategic communications grounded in the science of health, medicine and marketing; delivered creatively and through multiple channels.

MediaMedic provides Brand & Medical communication, Health PR and Digital & Social media services. We have experts from the field of marketing, digital, PR, medical, nutrition and creative to meet the unique needs of clients in this segment, making us a reliable partner in Building Health Brands.

Pharmaceutical, nutraceuticals and healthcare communication needs a deep understanding of science, the doctor community, regulations and the market. Within this scenario, the communication needs to be creative yet strategic. Moreover, with the rapidly increasing usage of digital & social media; declining attention span of the customers, communication challenges are rising. No single media or methodology can give the best results. Integrated and multichannel marketing is the need of the hour.

Hence MediaMedic provides integrated communications services for health and life science industry, associations and institutions.

Vision

To be a preferred partner to pharmaceutical, wellness and healthcare organizations to deliver effective communication solutions across target audiences for impactful business outcomes.

Mission

To use communication in an innovative and creative manner to build health-brands so as to positively touch people's lives.

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Introduction

Medical applications (apps) are the digital applications that help to support clinical decision making, improve communication between medical practitioners, improve patient interaction and most importantly provide medical information to practitioners. It has been seen that apps are frequently used as reference and information management tools in clinical practice with a trend towards increasing apps usage amongst medical practitioners.

Since the emergence of medical applications it is seen that these apps are quickly becoming one of the main tools for accessing clinical information and perform practice efficiently especially for the younger health professionals. Many of these apps are of varying quality and have different functions and are available on all the latest smart devices. Some of them are free and others charge to access their premium features. Many of these apps are developed by unknown publishers, raising concerns about the quality of information and the influence of pharmaceutical companies on content.

Some of the widely used medical applications used by medical professionals are-

Name of application	Functions
Epocrates	Provide information about drugs , Checking for drug interactions, News feeds for product announcements and medical news, Journal article lookup
Medscape	Drug Reference Tool , Drug Interaction Checker , latest medical news, Medical Calculators
Curofy	Discussion of cases, latest journals, medical guidelines
DocPlexus	Social networking platform for Doctors
Practo	Practice Management Software
Lybrate	Practice Management Software
1Mg	Order medicines online , Practice management software, Health and drug information
Netmeds	Online pharmacy store
Daily Round	Discussion of cases, Drug guide, drug calculators
Medipta	Cloud platform for reports, Practice management, Database on pharmacies, diagnostic labs, hospitals, ambulance services, blood banks

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Study Rationale

Health care in India is growing at a rapid pace and currently valued at US\$100 billion and is expected to touch US\$ 280 Billion by 2020. Digitalization in healthcare is expected to drive the industry at a CAGR of 23% by 2020. M-health is possibly one of the biggest sectors in India within digital healthcare, with a projected market size of 416 million USD in 2015 — which is set to increase to 1 billion USD INR by 2020. A recent study presented that 68% of doctors in developing markets like Brazil, India, and China recommend m-health and 59% of patients are already using.

According to a new market intelligence report by BIS Research, titled "**Global Mobile Medical Apps Market - Analysis and Forecast, 2017-2025**", the global mobile medical apps market was estimated at \$1.40 billion in 2016, and is estimated to reach a value of \$11.22 billion by 2025. The global mobile medical apps market is expected to grow at a compound annual growth rate of 21.4% between the years 2017 and 2025, driven by the rapidly increasing smart phone penetration rate on a global scale, advancement in high speed networks such as 4G.

Medical apps have considerably impacted patient lives in recent years by offering them more control over their medical decisions. As of 2017, there have been approximately 2, 59,000 medical among which 30% apps are for medical practitioners depending on their functions. Although the market is at a nascent stage, it holds an immense potential to irreversibly change the future of the healthcare industry. This technological trend has relieved the problems faced by healthcare professionals and has eased decision-making process. These applications focus on providing information, managing patient information accessing journals and connecting them to other healthcare professionals for discussion of cases. Mobile medical apps could also be utilized for the diagnosis and detection of life threatening chronic diseases, their effective management, and prevention which could significantly improve patient care and improve patient outcomes. Observing the current trends in the medical apps industry and impact of digitalization in the field of medicine the purpose of this study is to analyse digital savviness and perception of doctors towards medical applications.

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Study objective

This is the primary research conducted in Mumbai city to find the digital savviness and perception of doctors toward the medical apps.

1. To find the awareness of doctors towards the various medical apps.
2. To find out the medical apps which are popular among the doctors in Mumbai city.
3. To find out the perception of doctor toward the medical apps.

Research methodology

Study design: - Cross sectional survey.

Sampling method: - Simple random sampling.

Sampling population: - Doctors.

Sample size: - Total size: 600.

Sample area: - Mumbai city.

Time period: - 40 days.

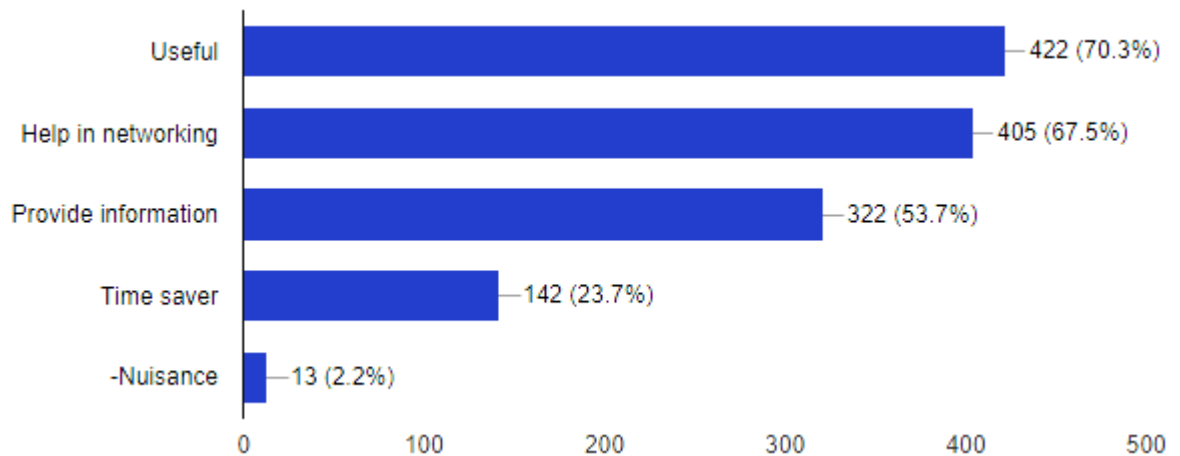
Data collection: - Questionnaire tool was used to collect data from Doctors.

Data Analysis: - Data Analysis was done by MS excel.

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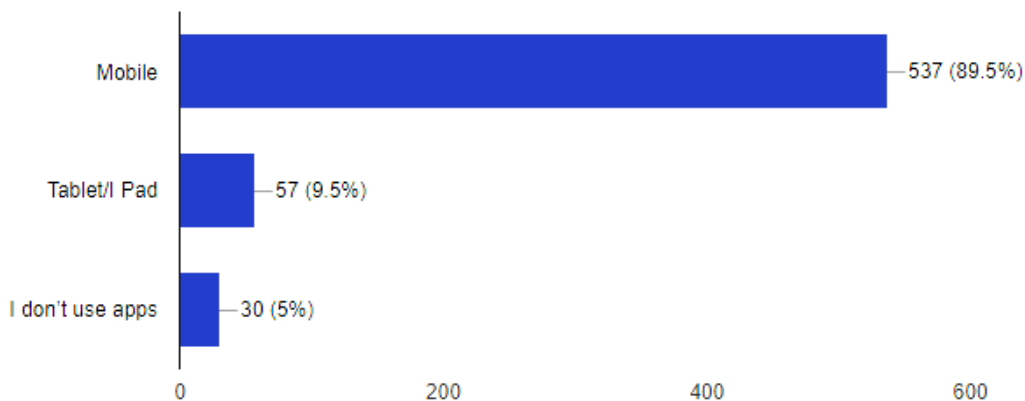
Research Findings:

1. Use of digital apps and web sites in daily practise.



It was observed that out of the sample size of 600 Doctors only 13 (2.2%) had a view that digital apps and websites are nuisance. Remaining 587 (97.8%) Doctors had found the apps useful, helping in networking, time saving and providing information regarding use of digital apps and website in daily practise.

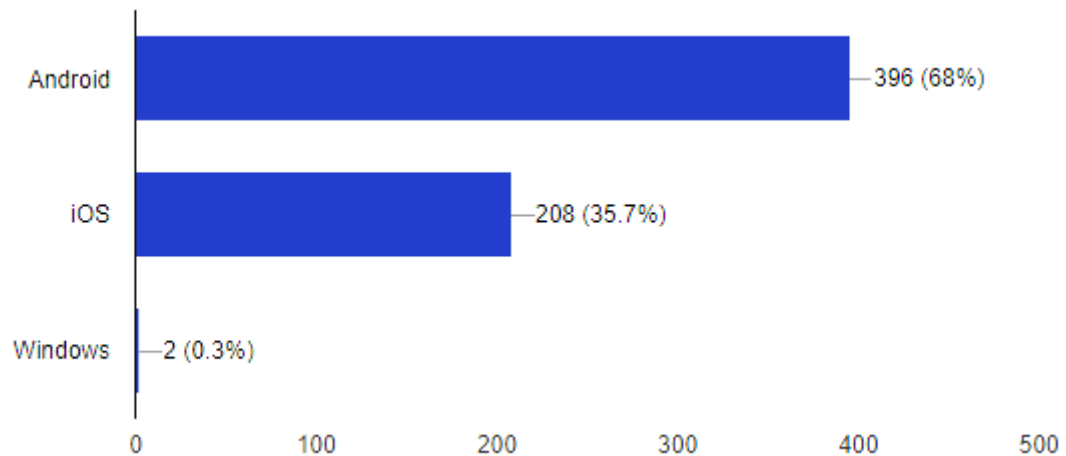
2. Device on which apps were being accessed



Out of 600 doctors large number 537(89.5%) were using the apps on mobile phones only and 57(9.5%) on other devices like Tab and I Pad. 30(5%) Doctors did not used any digital apps.

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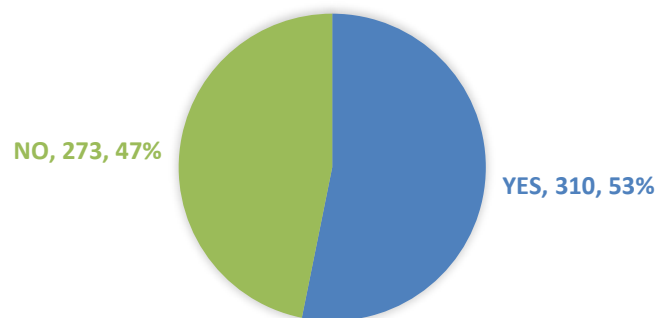
3. Operating system of the device used by doctors



Android emerged out as the major operating system used by Doctors and windows operating system was least used with only 0.3% being used.

4. Usage of medical app among the doctors

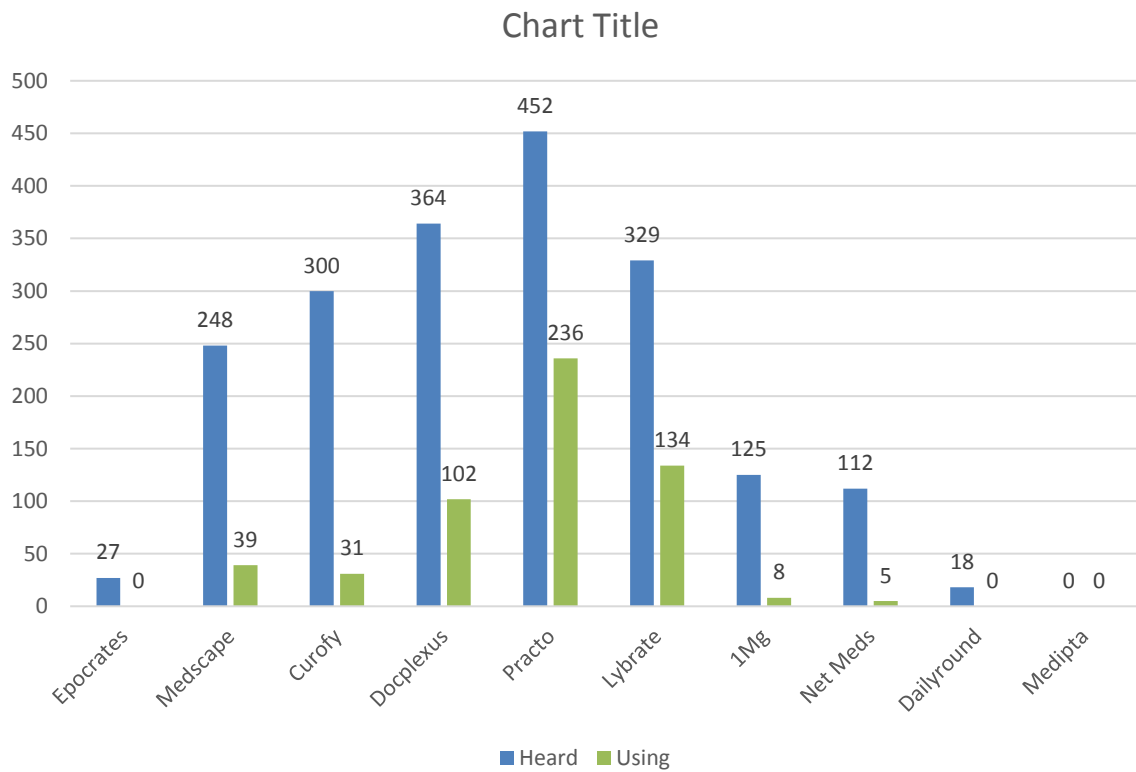
USE OF MEDICAL APP



Out of 583 responses more than 53% of Doctors use medical apps and 47% don't use any medical apps.

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5. Digital usage among the doctors

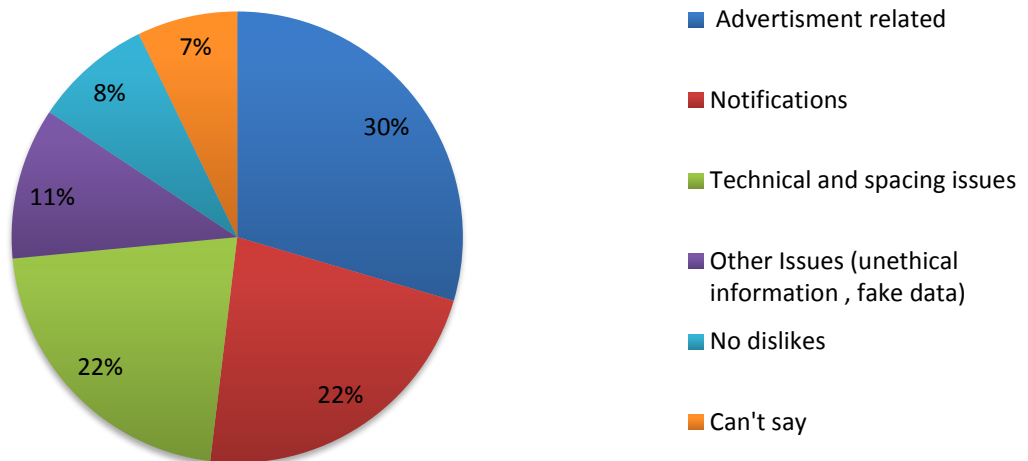


Around 452 doctors had heard about Practo out of them 236 doctors were using it, making it the most heard and used Mobile medical application. DocPlexus was heard by around 364 doctors and being used by 102 and Lybrate being the second most used application which was being used by 134 doctors and being heard by 329 doctors.

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6. Perception about the major dislikes about the medical Apps among the Doctors

Major Dislikes

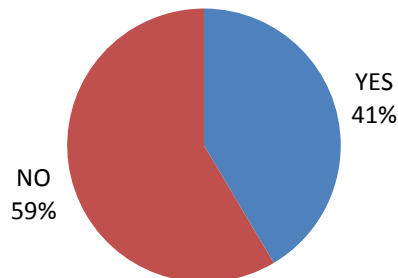


Advertisement related issues were the major dislike among the doctors contributing to being 30% which included factors such as excessive advertisement and irrelevant advertisement. The other major dislike was related to excess of notifications sent by the app along with technical issue which included app not working properly, interruption in between while 8% Doctors said that they have no issues and 7% had no take.

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7. Payment for full access of the features in the medical Apps.

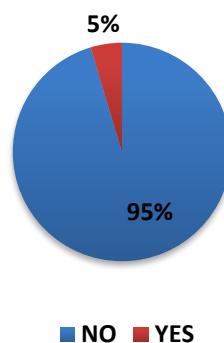
Payment for full Access



59% of doctors were not open to pay for accessing the full features of the app which also includes various in app purchases while 41% are interested in paying for accessing the various features.

8. Usage of medical app that has been developed by any pharmaceutical company

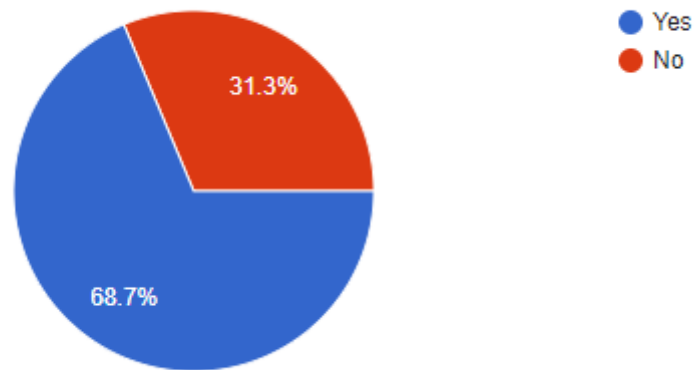
Use of apps developed by pharmaceutical company



It was observed that 95% of Doctors have not used any app which has been developed by pharmaceutical company and among the 5% users major apps which were found included apps from companies like Cipla, GSK, Janseen

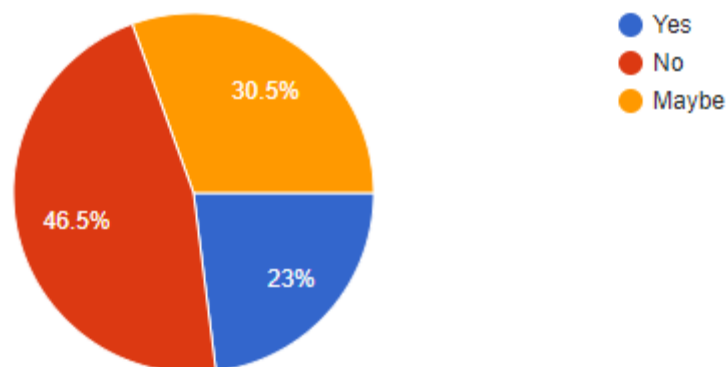
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9. Preference toward advertisements shown to the doctor to products related to their field



From the above data it was seen 68.7% of the doctors prefer to see advertisement related to their field of interest while 31.3% did not prefer to see such advertisements.

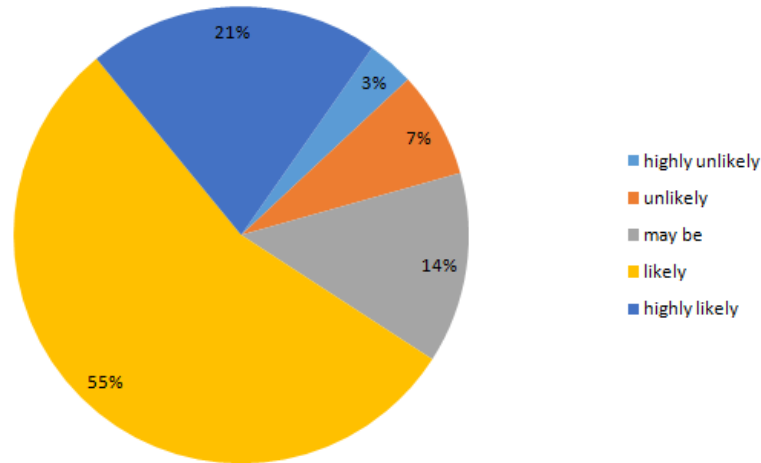
10. Impact of the advertisements on the prescribing behaviour of doctors



From the above data it is seen that 46.5% did not have any impact of advertisement on their prescribing behaviour, 23% said that advertisement had the impact on their prescribing behaviour while 30.5% Doctors were not sure whether advertisement had impact on their prescribing behaviour.

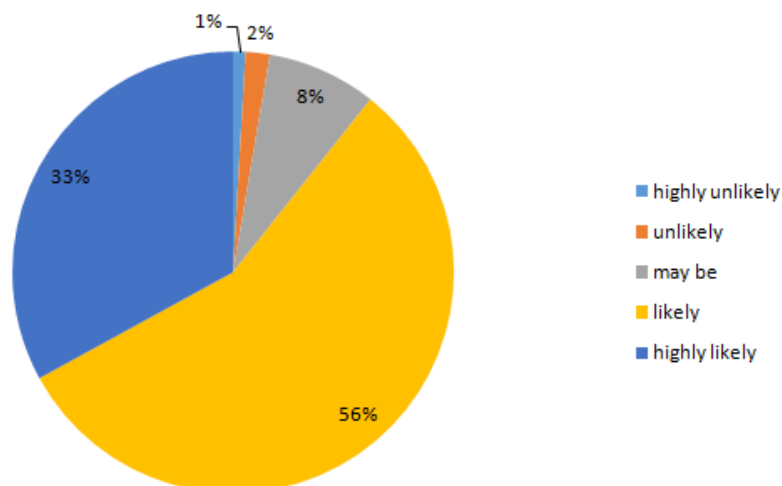
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11. Perception of doctors towards the usage of apps that increase patient interaction



76% of the doctors had responded positively towards the usage apps which are for patient interaction and 14% of doctors were not sure about the usage of apps which increases patient interaction.

12. Perception of doctors towards the usage of apps that increase their interaction with other physicians and doctors



89% of doctors were positive towards the usage of apps that increase their interaction with other physicians and doctors and 8% of doctors were not sure about it.

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Result and discussion

- From the above collected data it is seen that maximum number of doctors found digital apps useful in their life in form of providing information and saving time, only 13 doctors out of 600 sample size found digital apps nuisance, 95% of doctors were using the apps and the maximum use was made over mobile phones. Android operating system was mostly used by the doctors. This provided with the general information how much doctors are using apps and on which devices maximum.
- It was seen that from 583 doctors 310(53%) were using medical apps in day to day practice.

Out of the application having maximum number of downloads on apps store and play store a list of applications were prepared which included 10 apps like Epocrates, Curofy, Medscape, Docplexus, Practo, Lybrate, Net meds, 1MgMedipta, Daillyround.

- Practo was the most popular app being used for its features like online patient appointments and providing information and was also the most heard app in the doctors of Mumbai city. DocPlexus was heard by around 364 doctors and being used by 102 and Lybrate being the second most used application which was being used by 134 doctors and being heard by 329 doctors. Even the list included two major online pharmacy (Net Meds, 1Mg) retail apps providing medicine online but they were also not too much heard and used by the Doctors only 13 doctors were using these apps .
- Advertisement related issues emerged as maximum dislike factor among the doctors contributing to being 30% which included excessive advertisement and irrelevant advertisement. The other major dislike was related to excess of notifications sent by the app along with technical issue which included app not working properly, interruption in between while 8% and they faced such problems while using these Apps. For the full access of features some of the apps required in app purchases and payments from the data collected it was observed that only 41% Doctors were interested to pay for the premium features while 59% were not interested to pay for full access of the features.
- Many of pharmaceutical companies have come up with their apps but it was observed that 95% of Doctors have not used any app which has been developed by pharmaceutical company and among the 5% users major apps which were found included apps from companies like Cipla, GSK and Jansen.

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- From the data it is seen that it was seen 68.7% of the doctors prefer to see advertisement which are directly related to their area of interests and practise and can be helpful while 31.3% of Doctors are not interested see such kind of any advertisements
- In case of the impact created by the advertisements on the prescribing behaviour it was seen that 46.5% did not have any impact of advertisement on their prescribing behaviour, 23% said that advertisement had the impact on their prescribing behaviour while 30.5% Doctors were not sure whether advertisement had impact on their prescribing behaviour it can be seen that an effective advertisement would be liked by doctors if it is related to their area of interest.
- 76% of the doctors were likely to use the apps which are helpful in increasing the doctor patient interaction 14% Doctors were not sure whether about the usage of such apps while very few Doctors were not interested to use such kind of apps It can be concluded that Doctors want more interaction with the patients which could prove helpful in long run.
- 89% of doctors were interested towards the usage of apps that increase their interaction with other physicians and doctors which could be used for discussion of cases, sharing of the information so these apps could be developed and improved which can help to increase such type of interactions
- As there has been a lot of increase in use of digital technology now a days this is also being adopted in the Health sector many survey reports have revealed that approximately 2, 59,000 medical among which 30% apps are for medical practitioners depending on their functions as digital technology is cost effective and more interactive and Doctors are also very much likely to use such kind of medical applications which not only provide information's but are also helpful in increasing Doctor patient as well as Doctor interactions.

So development of such apps could be greater importance and the apps which have already been there should try improve on the various issues which come over and along.

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Recommendations

As we are moving toward the digitalized world. Physicians want to experience the whole new world which is easy, convenient, time saving. These medical apps play a great role in doing such. These apps provide data, help in time saving, and also help in day to day monitoring. Thus these medical apps are playing a major role in the doctor's practice.

For app providers

- A. Advertisement boom too be stopped** - Medical app providers should stop advertisement boom on these apps. As major dislike which came out from this study was irrelevant advertisement in these apps. Physicians want those advertisements which are related to their area of interest. Irrelevant popup's are distracting when they go through these apps. Thus app providers should show those advertisements which are related to their area of interest. For the application to be successful the provider should keep the expectations of customers (doctors) in mind while developing the app, which will lead to better customer satisfaction and experience.
- B. User experience to be excelled** – User experience plays an important role in the user retention. From this study we have observed and learnt some technical issues which play an important role in doctor's perception towards application. Apart from this, Regular updates always help in bug fixing which are helpful in smooth working of the application. Thus crashing of apps and memory spacing issues can be taken care of.
- C. Precise and valuable data-** Information of great value plays a major role in market development of app. As unethical and fake data usually affects the satisfaction and leads to disappointment. In the field of medicine data authenticity is one of the most important function which is to be seen by the developers.
- D. New segment for app developments** – As from the data we have concluded that physicians want those apps which are more helpful in physicians-patient interaction and physicians-physicians interaction. Thus these app providers can come up with new updates or new apps which provide this experience in a better way.

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For pharmaceutical companies

Apps provided by pharmaceutical companies are not been used by majority of doctors and even doctors do not have any knowledge regarding the same. These apps can play great role in the development of relation with the physicians as well can open up various aspects of digital marketing for the pharmaceutical companies. Observing the current trends in the society and the paradigm shift towards the digitalized world it is highly recommended to the pharmaceutical companies that these apps can be developed and can be a very resourceful tool for marketing, promotion of products and a great tool for maintain relations with doctors.

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Annexure

The total internship period was of 2 months in Mumbai which started on 2nd April and ended on 2nd June. For first 3 days I was oriented with the working and the campus of the organization in which we were told about the organization it's working their mission and vision. I was assigned a project after the orientation, for next 2 days, I read various articles related to our project and tried to brush up my knowledge on the same. In the next 5 days I made the Questionnaire tool which was related to my survey. Next 40 days were consumed in the primary research of my survey associated with my project.

About the survey-

I was working on my project with other 2 batch mates of mine, we were suppose to survey 600 doctors in Mumbai in which each had to cover 200 doctors each in different regions of Mumbai.

I was assigned the South Mumbai region as my territory which consisted of following areas.

1. Bandra
2. Mahim
3. Matunga
4. Lower Parel
5. Mahalaxmi
6. Mumbai Central
7. Marine lines
8. Charni road
9. Grant Road
10. Church Gate
11. Tardeo

I used to cover 5 doctors in a day on average. We were supposed to survey minimum 100 Specialist doctors out of 200 doctors. I had covered 136 Specialist doctors which comprises of Gynaecologists, Orthopaedics, Paediatrics, Consulting Physicians, Cardiologists, Ophthalmologists, Neurologists, Endocrinologists and Nephrologists. After the Sample sized was reached the data was analysed and last 10 days of our internship were used for analyzing of the data and preparation as well as presentation of our report to the company.

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