

Summer Training Report

IMPACT AND FUTURE OF COVID-19 INDUCED DIGITALIZATION ON PHYSICIANS AND ON PHARMACEUTICAL INDUSTRY

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INTRODUCTION

Corona Virus Disease 2019 (COVID-19) was originated from China and has since spread globally. Quarantines and social distancing practices are followed to contain the pandemic. This has changed the way how the world works, and Healthcare industry is no excuse to it. Face to face interactions are replaced by digital interactions to get one's work done. Firstly, patients are not supposed to visit the physicians unless an emergency, raising the question of accessibility to physicians by patients. Secondly, Pharmaceutical industry which is dependent on one to one interaction with physicians for the marketing the medicines are now facing challenges as physicians see no value in the same at this point. This exerts a pressure on the industry to change the way their sales force and marketing teams work. Both these scenarios raise a number of questions and the answers to these would help to shape the future of work and would tell us the best way of moving forward as once the pandemic is controlled the working style may not go back to normal from where it all started.

LITERATURE REVIEW

TELEMEDICINE

Telemedicine is defined as ‘Consultations with patients through video conferencing, e-health which may include patient portals, electronic transmission of digital images, monitoring of vital signs remotely, wireless applications for consumers, call centers, continuing medical education, and other applications are among the services that are considered part of telehealth and telemedicine’[1]. It is seen as a chain of care that uses the recent innovations in technology so as to improve the quality and efficiency of healthcare. It is also expected to increase the equality in terms of distribution of services [2].

Advantages of telemedicine include healthcare services in remote areas, easy information sharing and storing facilities, patients and healthcare professionals being less prone to infections especially in this COVID-19 situation, reduced overhead expenses and waiting time by patients [3]. Disadvantages of telemedicine are that the initial digital setup is costly, decrease in patient- doctor relationship, confidentiality of data, network issues, difficulty in interpreting low quality health informatics records and absence of stringent legal regulation to prevent unauthorized and illegal service providers in this sector [4].

DIGITALISATION OF PHARMACEUTICAL INDUSTRY

The lockdown measures have caused rapid digitalization across industries with pharmaceutical industry being no exemption to it. Pharmaceutical industry which was dependent on face to face interaction for sharing of scientific information and to ensure a consistent supply of drugs has to now shift completely from its traditional approach to digital approach of its sales and marketing activities for the time being. According to EY Life Science Report Asia- May’18 93% of pharmaceutical organizations were just in their start of the journey towards digitalization and this COVID-19 has acted as a catalyst to drive the organizations to identify the ways to innovate and engage their customers digitally [5]. This digitalization has indeed increased the engagement between the professionals and physicians, pushed outcome-based care into centre stage, has improved the process efficacy and agility along with the increase in real time responsiveness of the healthcare industry.

The biggest question that arises in the mind of the industry is that will digitalization become the new normal even after the pandemic. While complete digitalization is not expected, a substantial rise in the usage of digital mediums in addition to the traditional approaches is expected. However, those companies which uses this technological advantage for its growth is said to have an advantage over its competitors for sure [6].

The most frequently availed digital marketing channels were found to be WhatsApp (29.94%), informative health websites (26.7%), and mobile applications (20.6%) and the less frequently used mediums were e-detailing (8.1%), webinars/webcasts (7.7%), tele detailing (6.0%), self-directed web-detailing (5.2%), and marketing emails (4.2%). Webinars/webcasts had the strongest influence followed by websites, mobile applications, WhatsApp and self-directed web detailing methods [7].

The sales force should focus on playing an active role in directing non personal promotion, help physicians in providing support to patients, create more personalized connect and should sharpen their product pitching skills, coordinate messaging campaigns across the organizations and brush up on their communication and customer relationship management skills [8].

According to a study conducted by Quintiles in Europe, physicians are willing to spend half their time in e-detailing and the other half in e-detailing sessions. Physicians preferred e-detailing more than the traditional face to face interactions for its flexibility to reschedule and conduct meetings from home. Concluding the study, Liz Murray, Senior Director- Multichannel strategy, Quintiles said ‘The future belongs to an integrated multichannel approach, based on a combination of live, personal digital and nonpersonal digital interactions’[9].

The internal digital presence of the organization should be crispier in terms of maintaining uniform and integrated data, collection of big data, organization of clinical trial reports, compliance with regulations of different regions and markets and data on consumption and demand in short should focus on maintaining Product Information Management (PIM). Pharmaceutical companies should integrate into new distribution and sales models as well as should work hand in hand with the telemedicine service providers as they potentially connect patient to drug providers [10].

THE DIGITAL HEALTHCARE REVOLUTION

Remote monitoring, Artificial intelligence and predictive analytics are trending, and big data is being compiled using various point of care devices connected to smartphones like the Fitbit devices etc., In addition to this, the introduction of health information system have increased the access to stored medical information by medical institutions. Digital healthcare is creating value and utility based on the data collected through sensors and various other methods. Organizations that have quickly entered the market and accumulated the data have developed advanced algorithms and will definitely enjoy the early mover advantage and outrange its competitors in the future if the organizations are well strategized and well managed [11].

OBJECTIVES

1. Pharmaceutical organizations

- a. To determine the challenges faced by the sales and marketing teams to connect to physicians during the lockdown.
- b. To find out the alternative strategies used by the pharmaceutical organizations to connect to the physicians during the lockdown.
- c. To find the views and attitudes of pharmaceutical professionals, about the future of work of sales force and marketing teams, once the lockdown is lifted.

2. Physicians

- a. To find out how the physicians are connected to their patients during the pandemic.
- b. To find the views and attitudes of physicians about the digital consultations.
- c. To determine the expectations of physicians from pharmaceutical companies i.e., how can pharmaceutical organisations help the physicians during the pandemic.
- d. To find out the best possible way in which they want the pharmaceutical companies to interact with them post lockdown.

METHODOLOGY

Sample Design-Qualitative and Quantitative research approach was adopted. Respondents were pharmaceutical professionals and doctors.

Sampling method- We have done sampling on the basis of Purposive sampling method and selected 5 categories of pharmaceutical professionals that are: -

- C-suite executives/ Directors/VP
- Sales-customer facing/management roles
- Marketing-product / Marketing management/Market Research
- HR and training
- Supply chain management

And seven categories of HCPs that are: -

- Paediatrician
- Ophthalmologist
- Gynaecologist
- Cardiologist
- Orthopaedist
- Psychiatrist
- General physician

Reason for sampling method- We have chosen this method for sampling and selected above categories of pharmaceutical professionals and HCPs because of the objective of our study.

Data source: A combination of primary research and secondary research

Tool of data collection- Questionnaire in the form of google form.

Data Collection Method- Primary data were received by the respondents by using questionnaire in the form of google form.

Duration- 2 Months (Mid-April to Mid-June 2020)

Sample Size- 200 pharmaceutical professionals and 50 Doctors.

Data Collection Tool- The questionnaire which consist of 2 separates google forms for pharmaceutical professionals and doctors. Both questionnaires are based on the impact of digitalization on pharmaceutical professionals and doctors.

Modes of administration of questionnaires – LinkedIn messages and mails to Industrial contact (Online research)

Study area: PAN India.

RESULTS AND DISCUSSION

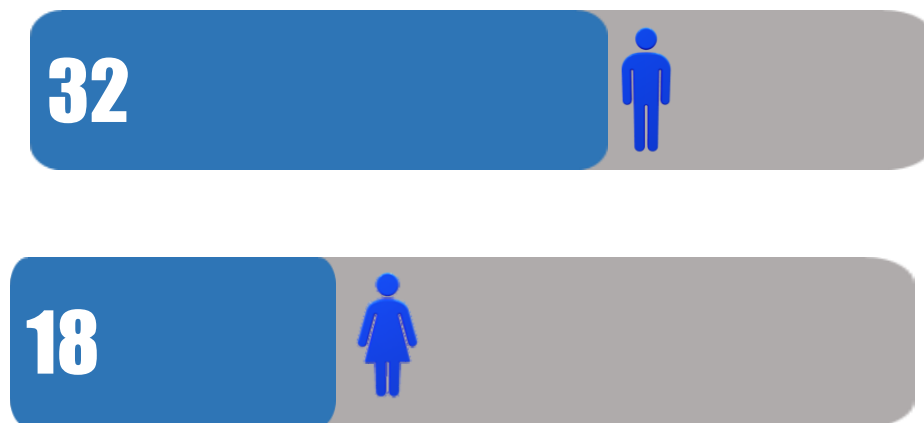
ANALYSIS OF PHYSICIAN RESPONSES

The study consists of 50 physician respondents hailing from Chennai, Indore, Mumbai, Ahmedabad and Ambala cities of India.

Note -The numbers mentioned against the lines represents the question number in the survey questionnaire.

On analyzing the demographic details of the respondents,

1)The male and female respondents were 32 and 18 respectively.



Graph 1: Gender

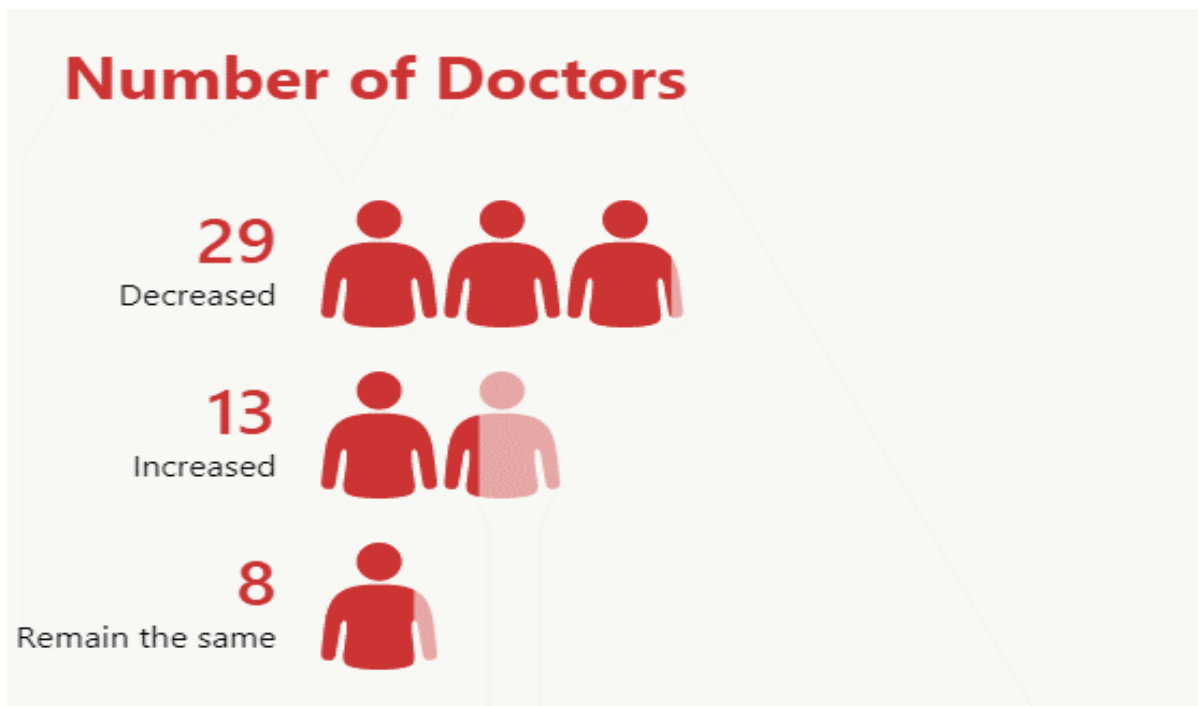
2)22 respondents belonged to the age group of 24-39 years and 28 respondents were of the 40-55 years age group.

3)The specializations of the physician respondents are as follows

Specialty	Number of physicians
cardiologist	6
General physician	12
Gynecologist	10
Ophthalmologist	3
Orthopedic	7
Pediatrician	6
Psychiatrist	6

These demographic details will aid in optimal comparison of views expressed in a question between the categories of respondents such as male Vs female, 24-39 years Vs 40-55 years age group and amongst the specializations.

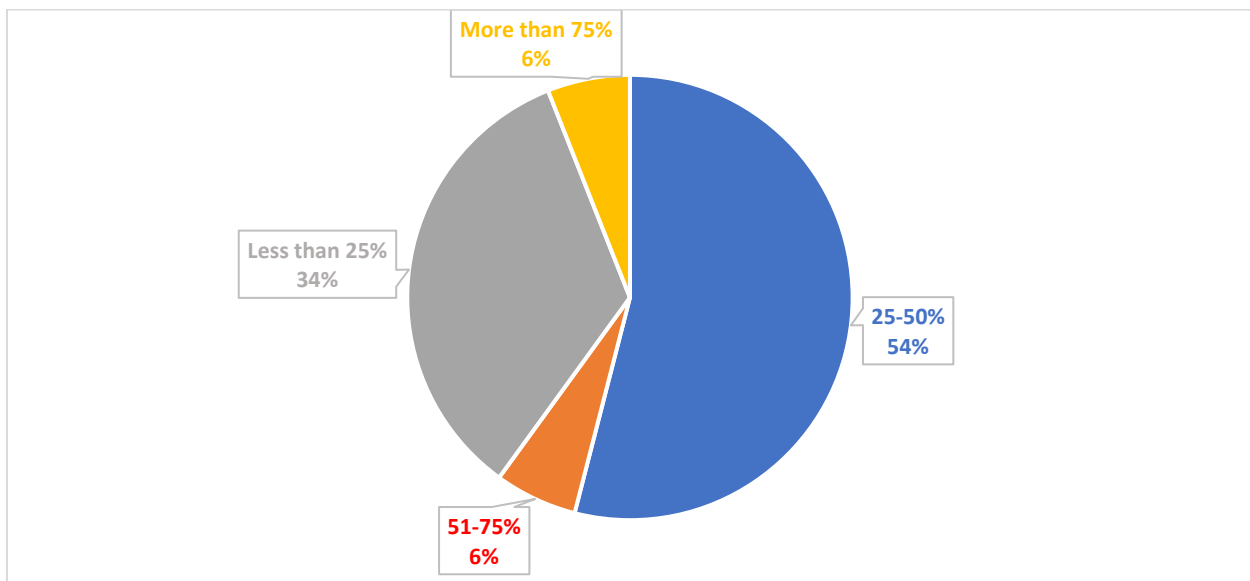
II) 4) COVID has the number of outpatients I see in a day.



Graph 2: Number of Doctors

Majority of 29 of the physicians have said that the number of patients has decreased during the pandemic. The possible reasons include the lockdown measures that have sealed the government transportation mediums and the other major reason is the risk of getting infected. An article states that the people are considering the risk of getting infected from hospitals to be higher than the risk of getting infected at a grocery store or other essential businesses however this ideology of patients lacks evidences it added.

5) If decreased, please quantify



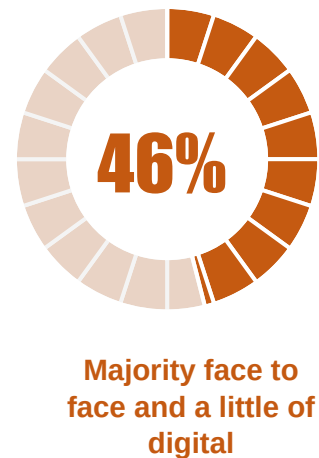
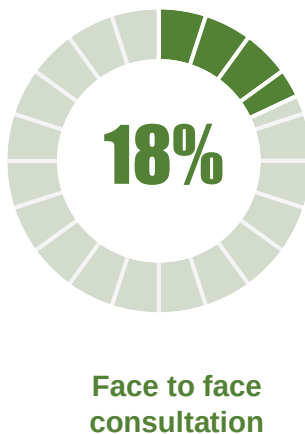
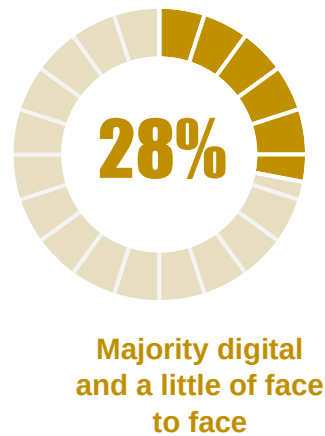
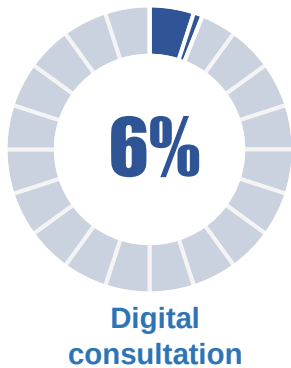
Graph 3: Decrease in number of patients

Upon our request to quantify the decrease in the number of patients, majority of the physicians said that the patient visits have decreased by 25-50%.

When we dig to find the possible reasons of reduction by 25-50% in general physicians may be associated with the reduction in annual health check-ups and regular check-up visits among the people in the cities. As far the gynecologists are concerned, there might be a reduction in non-pregnant patients visiting them as pregnant patients need to compulsorily visit their physicians for regular scan, check-ups and deliveries. As far as ophthalmology is considered, new patients would have restrained themselves from visiting the clinics. The fall in clinic visits seen amongst pediatricians is a possible fear of one's child getting infected due to their physiologically reduced resistance to infections. The overall reduction in general physicians, orthopedics and pediatricians can also be

attributed to the usage of home remedies to cure certain illness like cold, flu, pain in joints etc., These are the reasons expected by the team with the help of some facts and figures in the web.

6) Through which medium, are you consulting the outpatients during this pandemic?



Graph 4: Medium of consultation

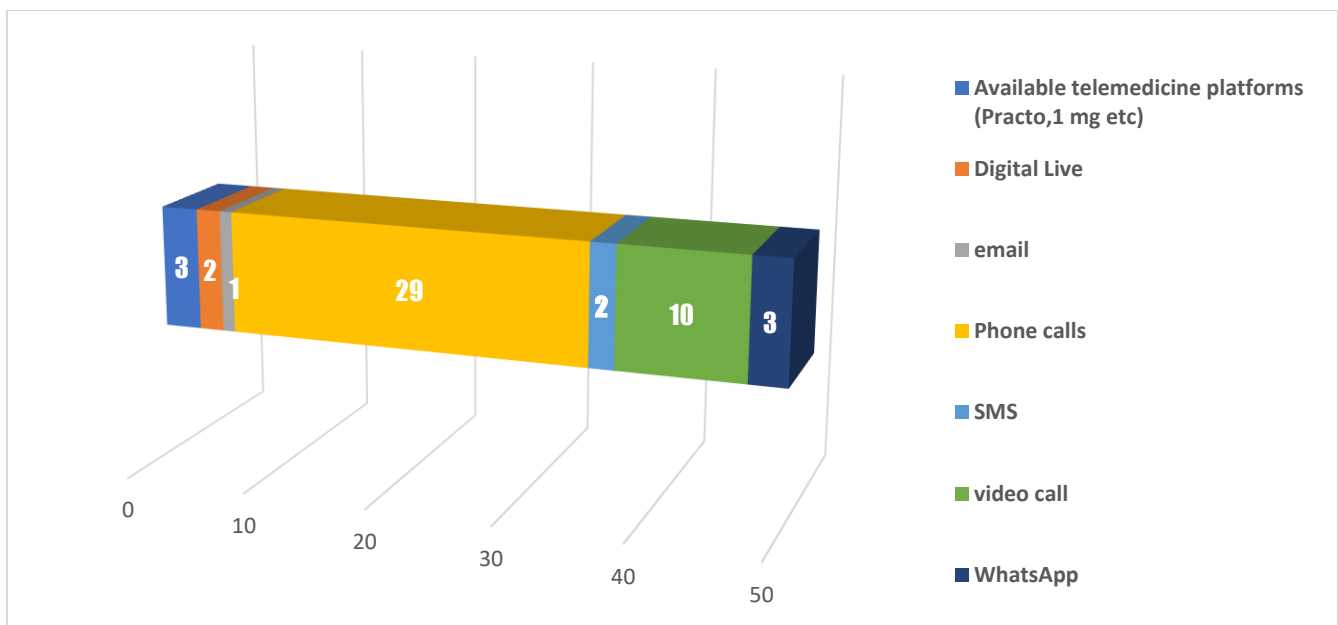
Majority of the physicians have opted for the option majority face to face and a little of digital. Digital consultation here refers to electronic communication and information technology used like phone calls, video calls, telemedicine platforms etc., basically mediums other than the traditional face to face consultation.

When comparison was performed females, about 72.2% opted for face to face consultations purely or majority of face to face consultation when compared to 62.5% of males opting the same. This might be attributed to the higher technological interest seen in males.

Moving forward, 81.4% of physicians of age group 40-55 years opted either for face to face or majority of face to face consultations while compared to the 50% of physicians opting the same in the age group of 24-39 years. This figure might tell us that the younger generation which is more tech savvy has easily transformed their consultations into digital ones.

When the comparison was made specialty wise, almost 50% of the psychiatrists and general physicians, 71.4% of orthopedics, 80% of gynecologists and 100% of ophthalmologists opted for either face to face or majority of face to face and a little of digital consultations. The main reason seen behind the absolute figure (100%) seen in the ophthalmologists is connected to the inability of the ophthalmologists to conduct examinations, which is the primary test when they consult digitally.

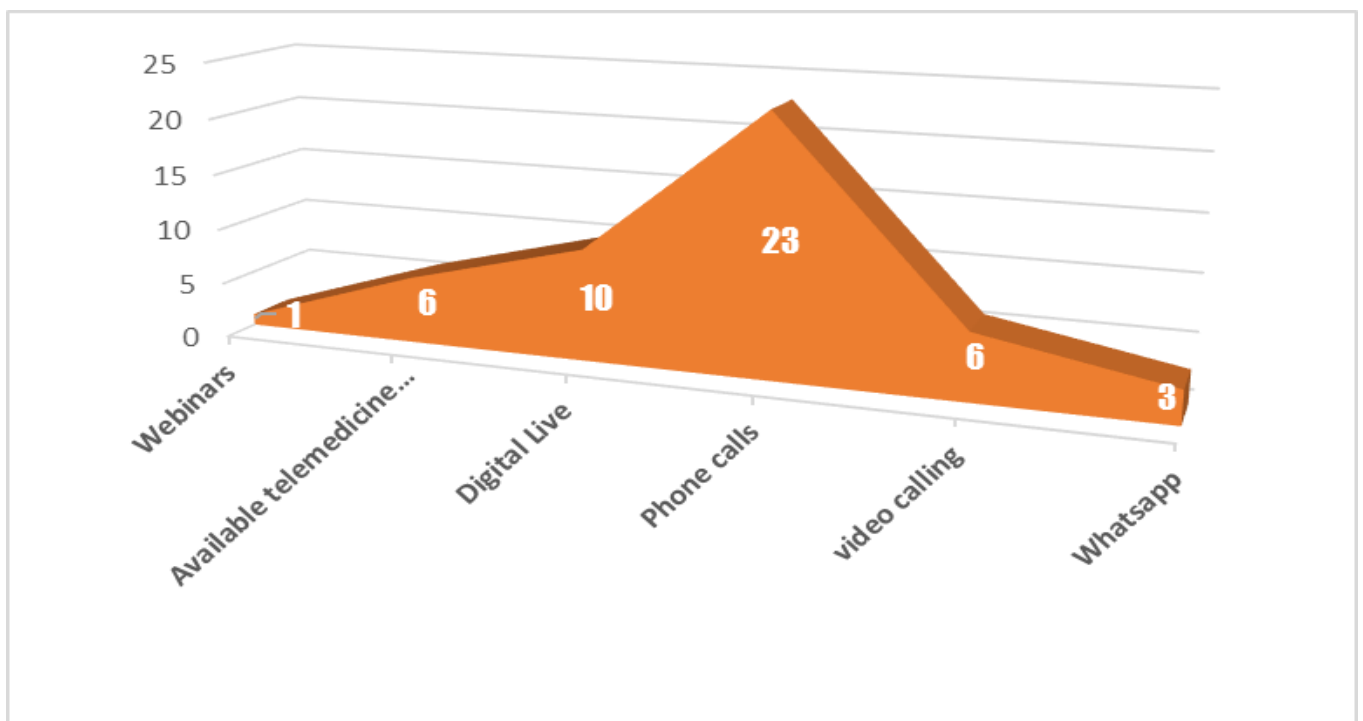
7) If digitally consulting, what is the medium you are using to stay connected to your patients?



Graph 5: Digital consulting medium

29 of the physicians used phone calls to digitally consult with the patients followed by 10% of the physicians choosing video calls to do the same. The possible reasons of why physicians are not adapting to the telemedicine platforms might be acceptance of technology, technological barriers, rapid upgradation of technology, low internet connectivity, awareness, resistance to change by both physicians and patients. Additionally, a vast majority of older people are more convenient in phone and video calls rather than operating the comparatively complex telemedicine platforms. Additionally, the level of education of patients does play an important role for the adaptation to these services by the physicians.

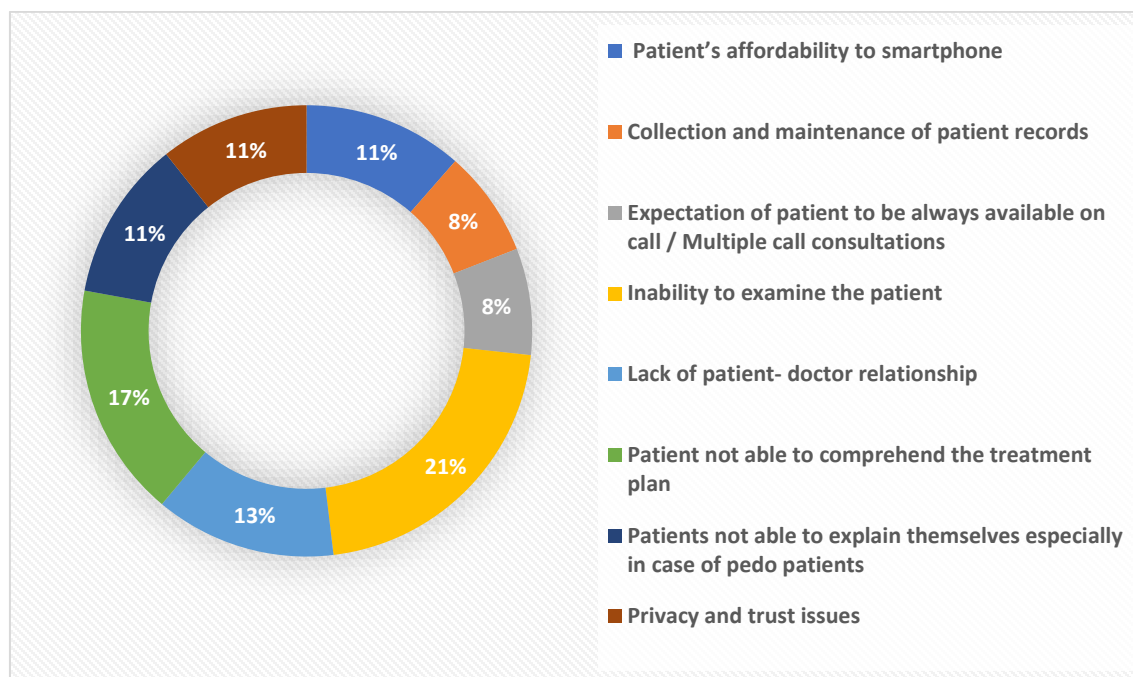
8) Which medium is effective, as in meeting the objectives of treating patients?



Graph 6: Effective medium in treating patients

Something that is effective works well and produces the results that were intended. In this case, the results are produced only when the way is convenient or is made simple. Phone calls are perceived to be simpler when compared to the telemedicine platforms as it needs no big technological intelligence, phone with special features and network connectivity both by physicians and patients.

9) According to you, are the challenges of digital consultations is?



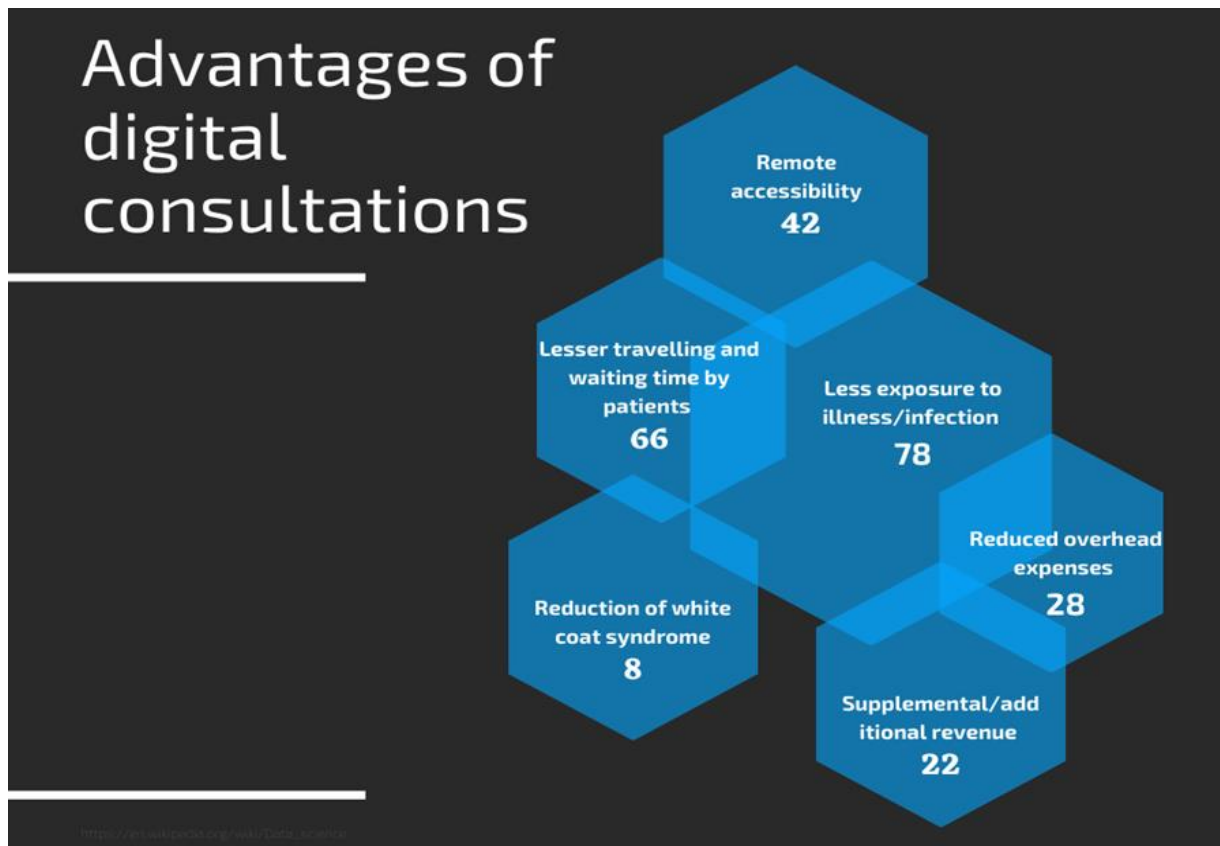
Graph 7: Challenges of digital consultations

About 21% of the respondents have chosen the inability to examine the patient as a main challenge of the digital consultation followed by 17% of them opting for the patient not able to comprehend the treatment plan option.

When looked in detail, ophthalmologists require a series of testing that can be done only in clinical setting, when orthopedic is considered it consists a majority of pediatric and geriatric patients and when pediatric is concerned it consists of children. Pediatric and geriatric patients always require special attention, proper examination and counselling which may help them to comprehend the treatment plan properly.

Further, an article says that the Indian doctors are not taught the means of telemedicine and it reports the limited capability of doctors to do telemedicine in the country.

10) According to you, what are the advantage of digital consultations is?



Graph 8: Advantages of Digital consultations

This is a question where our respondents were allowed for choosing multiple options. Majority of them said that the major advantage of digital consultation is that it makes patients less prone to infections which is the major concern during this pandemic situation of COVID-19. It was followed by a large number of respondents saying that the waiting time is reduced further saving commuting and waiting time by the patients. The next place goes to remote accessibility where the physician is able to reach a patient in a village especially in times of reverse migration happening now.

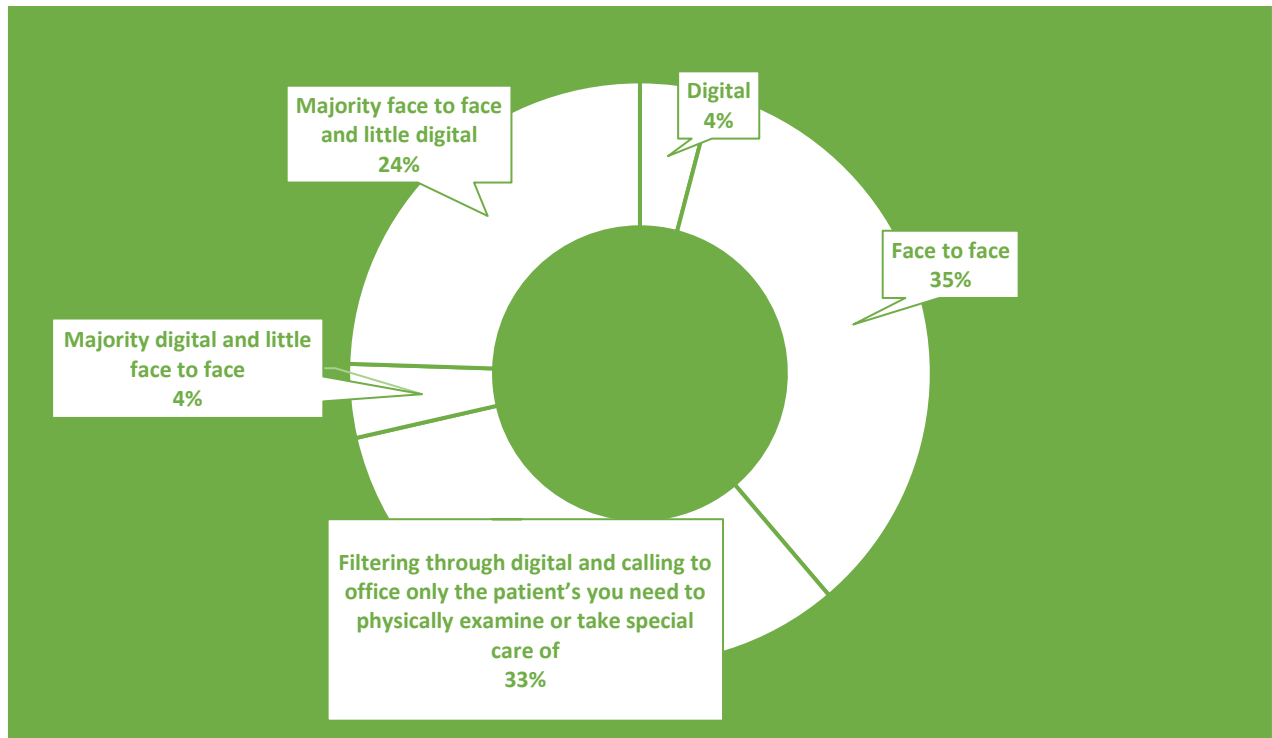
11) Are patients happy with the digital consultations?



Graph 9: Patients happy with digital consultations

About 24 patients have said that they are unaware whether their patients are happy with the digital consultations followed by 16 of them confirming that their patients are happy with their digital consultations. When correlated with specialties, majority of the pediatricians and orthopedics have said that they don't know whether their patients are happy or not as it is concerned with children and old people who are tricky to handle and majority of psychologists have said that their patients are happy with digital consultations.

12) What do you think will be the preferred way of consultation, post covid?



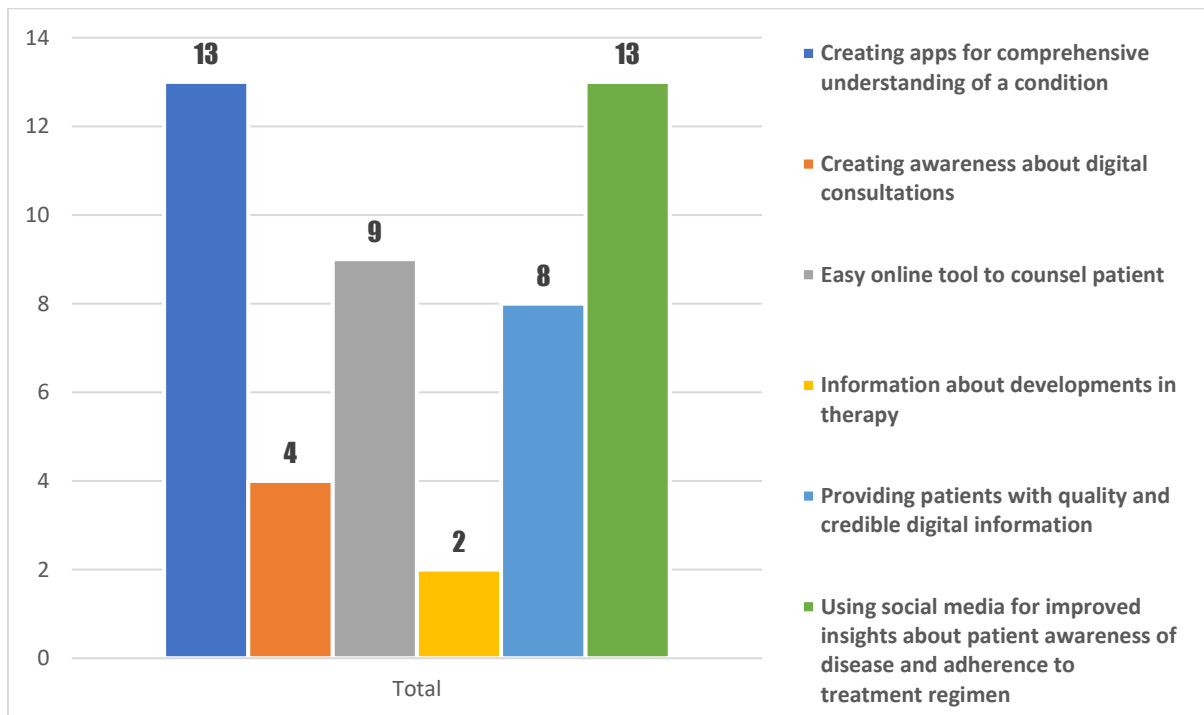
Graph 10: Preferred way of consulting, post covid

33% of the physicians have chosen to go with face to face consultations followed by filtering through digital mediums for a face to face consultations and the next option most chosen is the preference to have majority of face to face and a little of digital consultations.

The challenges faced by the organization to adapt to digital consultations include cost, reimbursement, legal liability, confidentiality, effectiveness, efficiency, organization size, teaching structure, having an expert panel at one place and resistance to change.

Extremes of age, level of education, e Health/ computer literacy, bandwidth, unawareness, high expectations of users, apathy, socioeconomic status, gender and preference of personal meeting are the challenges faced by patients to adapt to digital consultations.

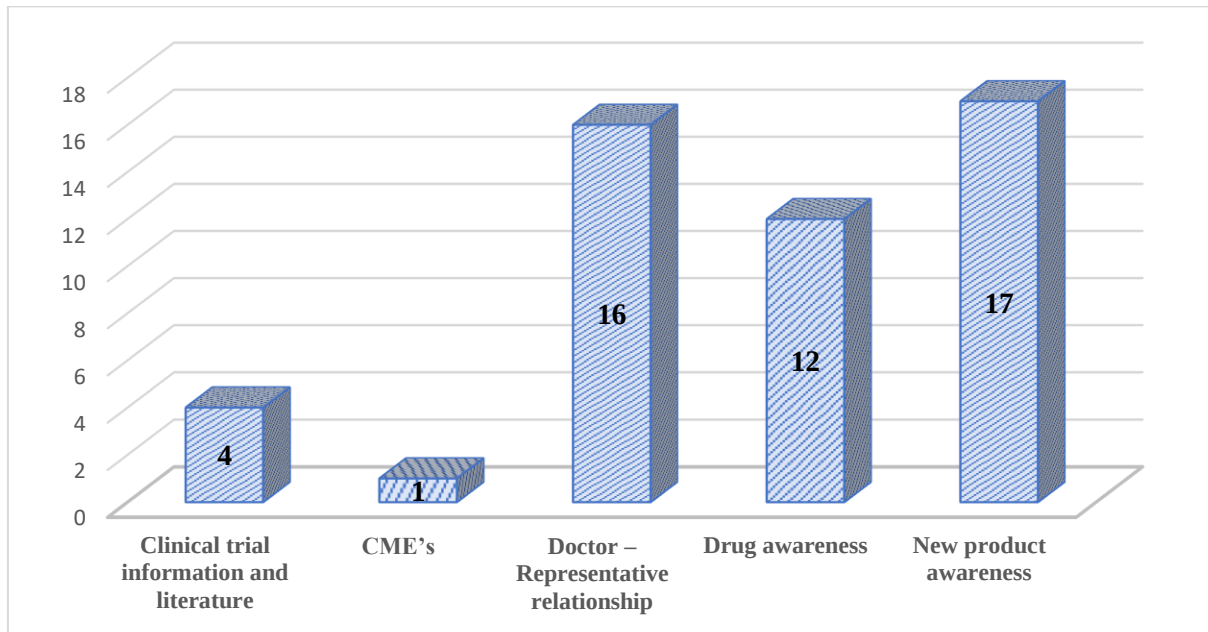
13) In digital consultations, the patients consult remotely with physicians and this can lead to information gap. How do you think that these gaps can be filled by pharmaceutical companies?



Graph 11: Gaps filled by pharma industry

The second major challenge as mentioned by physicians in the study is the inability of patients to comprehend the treatment plan. Based on the above said reason, might be the doctors have chosen using social media for improved insights about patient awareness of disease and adherence to treatment regimen and creating apps for comprehensive understanding of a condition. This is one place where pharmaceutical professionals can build relationship with both their customers and consumers.

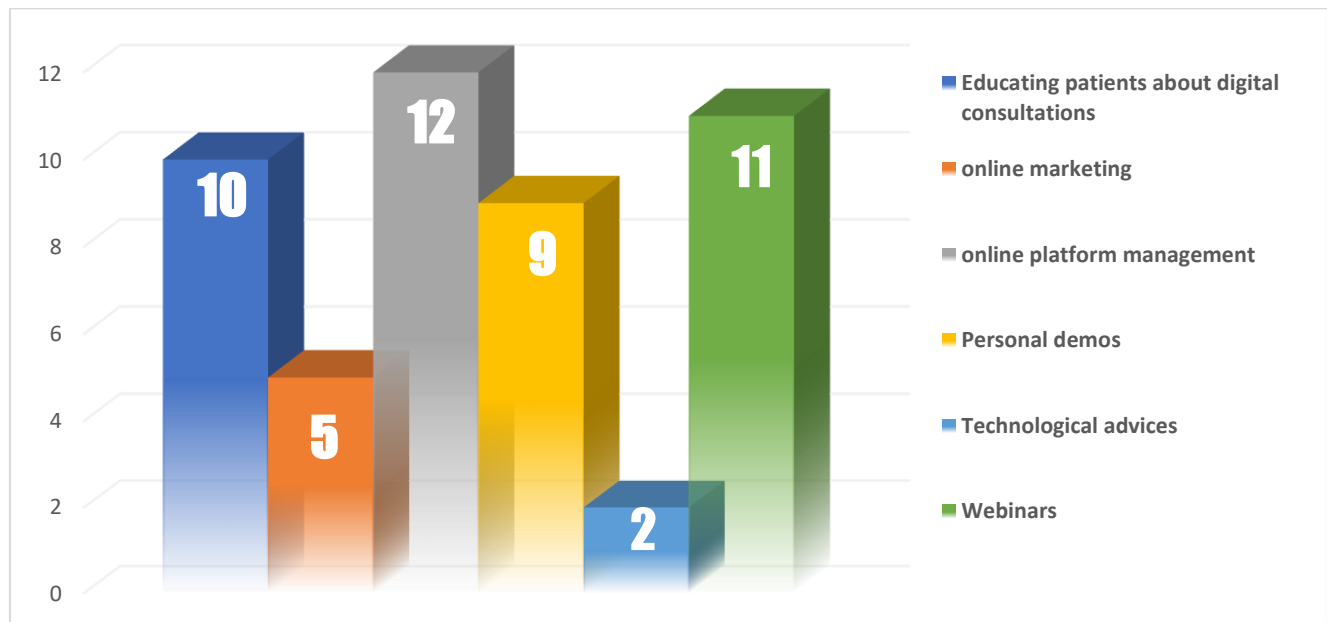
14) What do you think will go missing in online interactions when compared to offline interactions with medical representatives?



Graph 12: Trait or information that will be missing in online interactions

New product awareness and doctor – representative relationship is said to be majorly missing in the online meetings as per physicians. New product awareness is a major concern for physicians of younger age i.e., 24- 39 years and doctor- representative relationship is a major concern for physicians of 40-55 years age group.

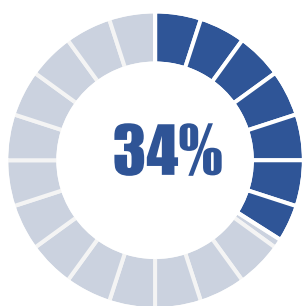
15) How would you like the Pharmaceutical companies to support you with the digital transformation of consultations?



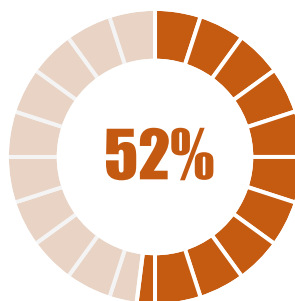
Graph 13: Pharma companies to support digital transformation

Online platform management and webinars helping the physicians to use the digital platforms effectively and efficiently are voted as the need of the hour.

16) What kind of customer support would you like to prefer from pharmaceutical organizations?



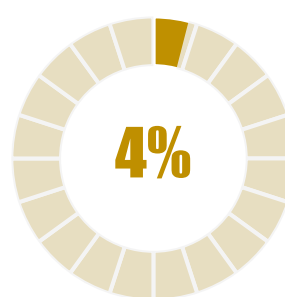
Information about
availability of drugs



Information about drug
usage and drug
awareness



Short and informative
information about
literatures

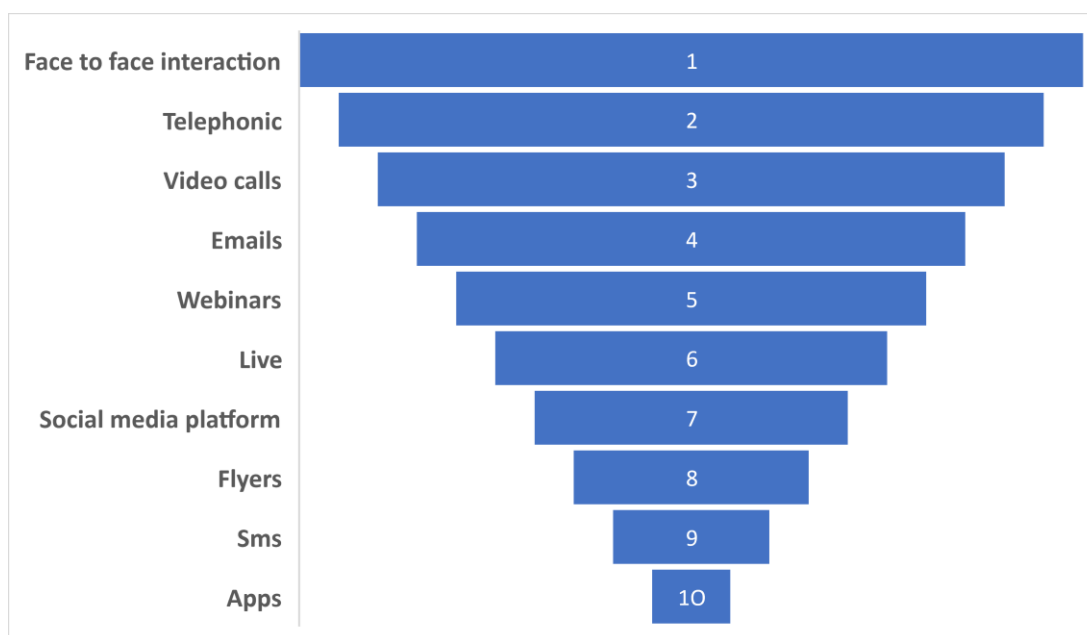


Webinars

Graph 14: customer support from pharmaceutical organizations

Physicians have recorded that they expect information about drug usage and drug awareness along with information about availability of drugs to be the customer support they would be expecting from the pharmaceutical companies.

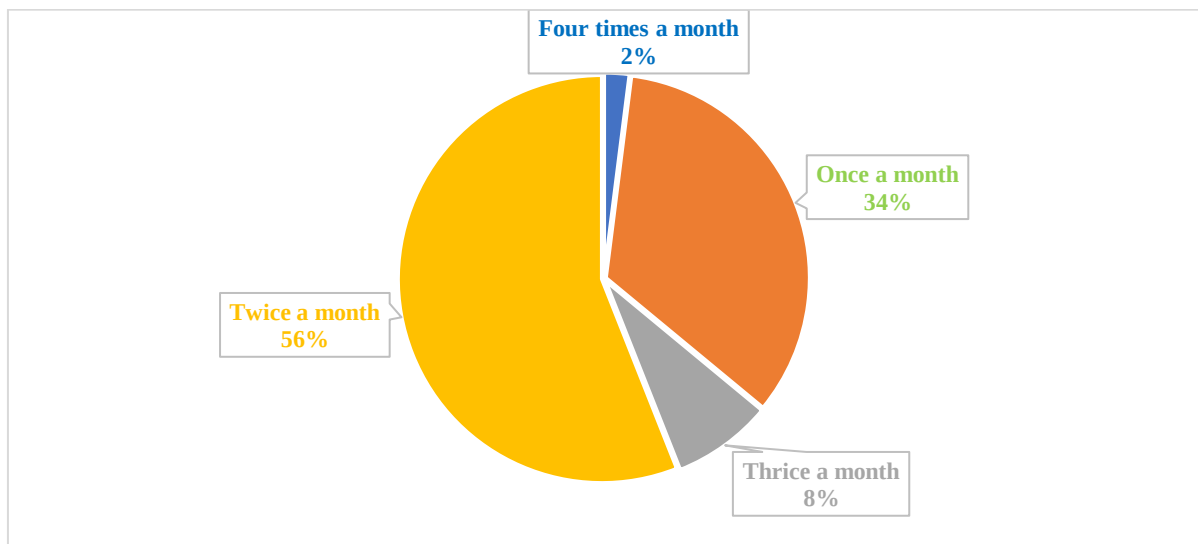
17) Rank in order of preference, the medium of interaction, that you would like to connect with pharmaceutical professionals' post COVID?



Graph 15: Connect with pharmaceutical professionals' post COVID

Most of the physicians opt to have a face to face interaction with the representatives rather than having digital meetings.

18) How frequently would you like to see the pharmaceutical professionals?

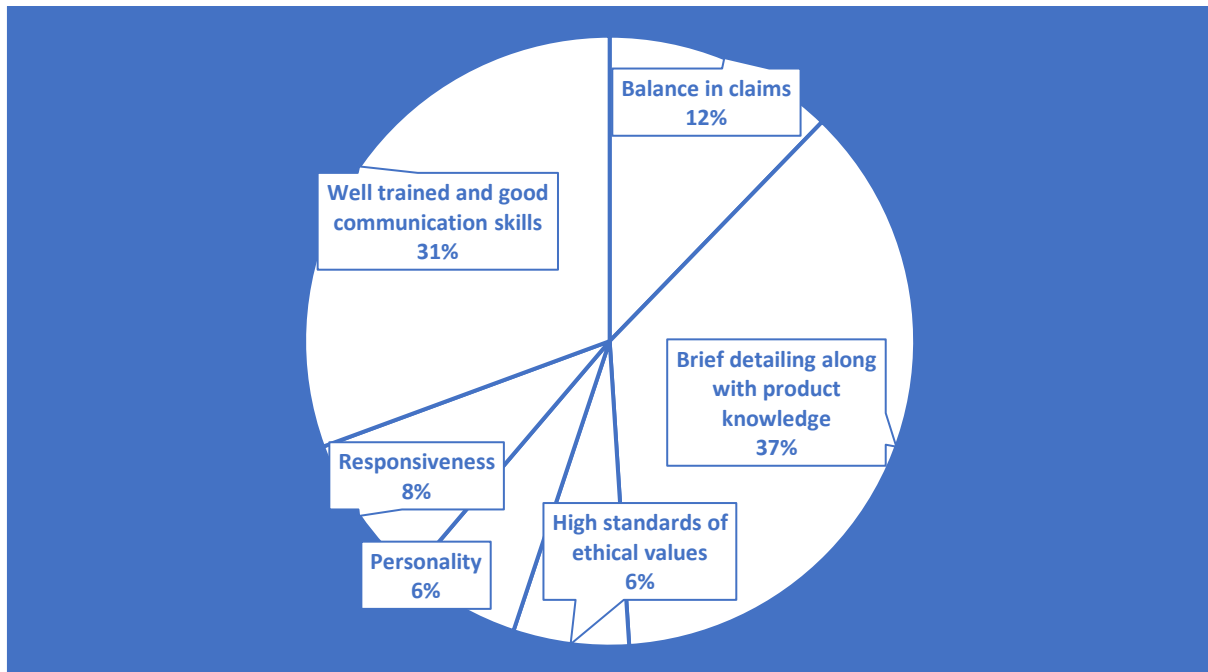


Graph 16: Visit of pharma professionals

56% of the physicians would like to see representatives twice a month followed by 34% of them choosing to see only once a month.

Majority of the older doctors have opted to meet the representatives once a month when compared to young physicians who have majorly opted to meet the representatives twice a month. Most of the women physicians have chosen twice a week when compared to their male counterparts.

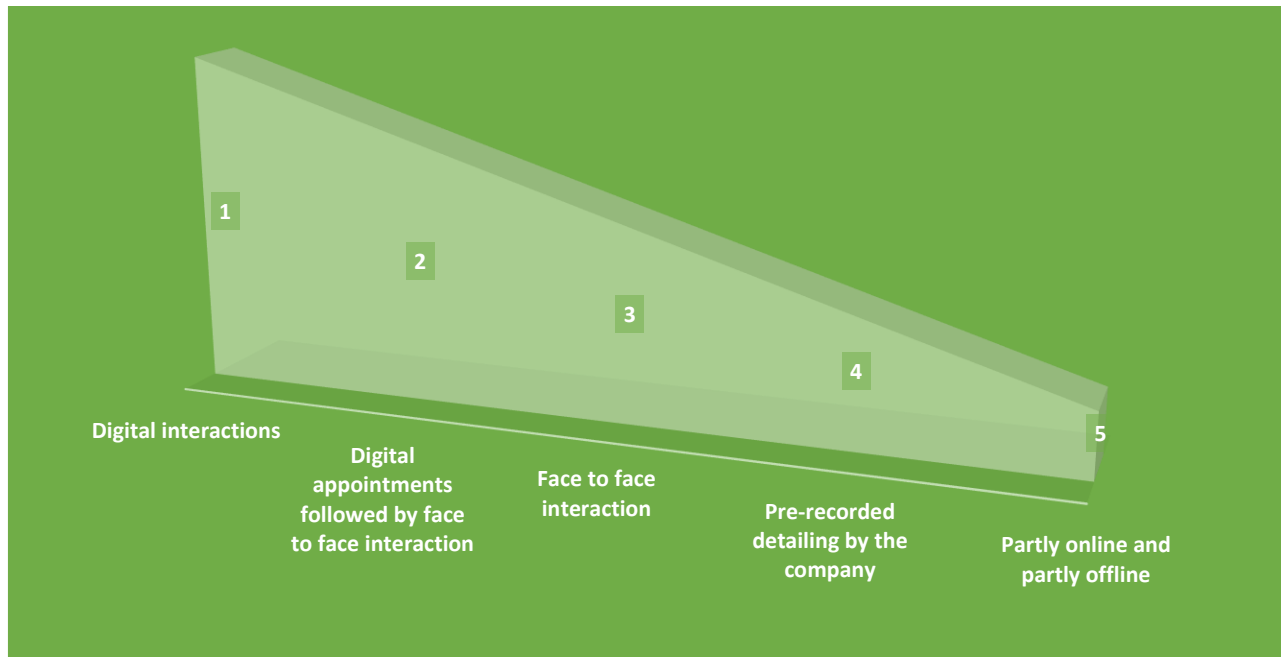
19) What traits do you value the most in medical representatives whom you wish to communicate with either digitally or via face to face interactions?



Graph 17: Traits in medical representatives

The topmost qualities expected from a medical representative by a physician is to be good communicator and well trained to give a brief detailing with adequate product knowledge. From the study, it is seen that women respondents prefer to have a well-trained and good communicationally skilled representative whereas the male respondents don't have absolute majority of any one trait and the responses fluctuates between the traits. Orthopedics prefer representatives who give brief detailing and has adequate product knowledge. Ophthalmologists and gynecologists prefer well trained representatives with good communication skills. No correlation with age found.

20) Rank in order of preference, the best possible way in which you want the pharmaceutical companies to interact with you post COVID?



Graph 18: pharmaceutical companies to interact with you post COVID

When we asked the physicians to rank the order of preference the best possible way that they want to interact with pharmaceutical professionals, digital interactions got the first rank followed by digital appointments preceding face to face consultation, face to face interaction and rest. This however seems to be contradicting the response we got in the previous questions where face to face consultations were majorly preferred.

ANALYSIS OF PHARMACEUTICAL PROFESSIONALS' RESPONSES

1. **Gender-** The male and female respondents were 32 and 18 respectively.



Graph 19: pharma professional gender

2. **Age (in completed years)**

Analysis state that report contain more response data from generation of Millennials generation Y, Gen next (153), Generation X (baby bust) (27), I Gen / Gen Z (14), Xennials (8), Baby boomer (1).

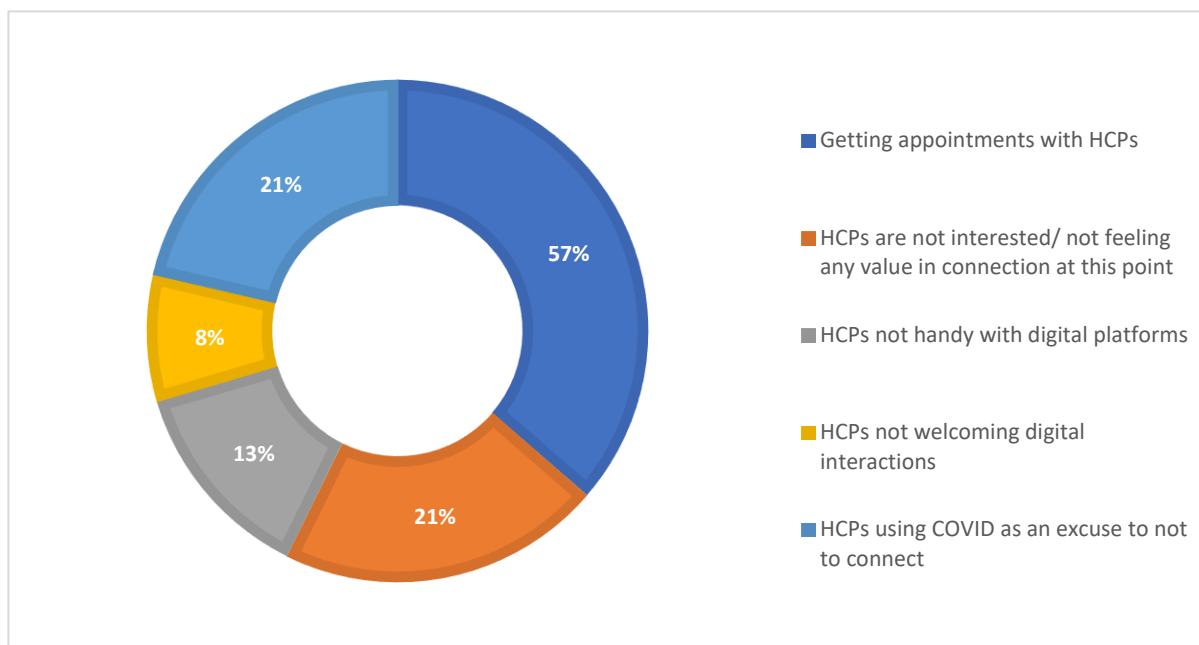
3. Designation



Graph 20: Designation

Analysis states that, a greater number of responses are from pharmaceutical Marketing-product / Marketing management/Market Research, than Sales customer facing / management roles and followed by Human resources and C-suits executive and supply chain management professionals.

4. Challenges faced by your organization to engage Health care professionals (HCPs) during a lockdown.



Graph 21: Challenges to engage HCPs during lockdown

57% of professionals said that they are facing to get appointments from HCPs, and 22% said that HCPs are not more interested to connect with companies.

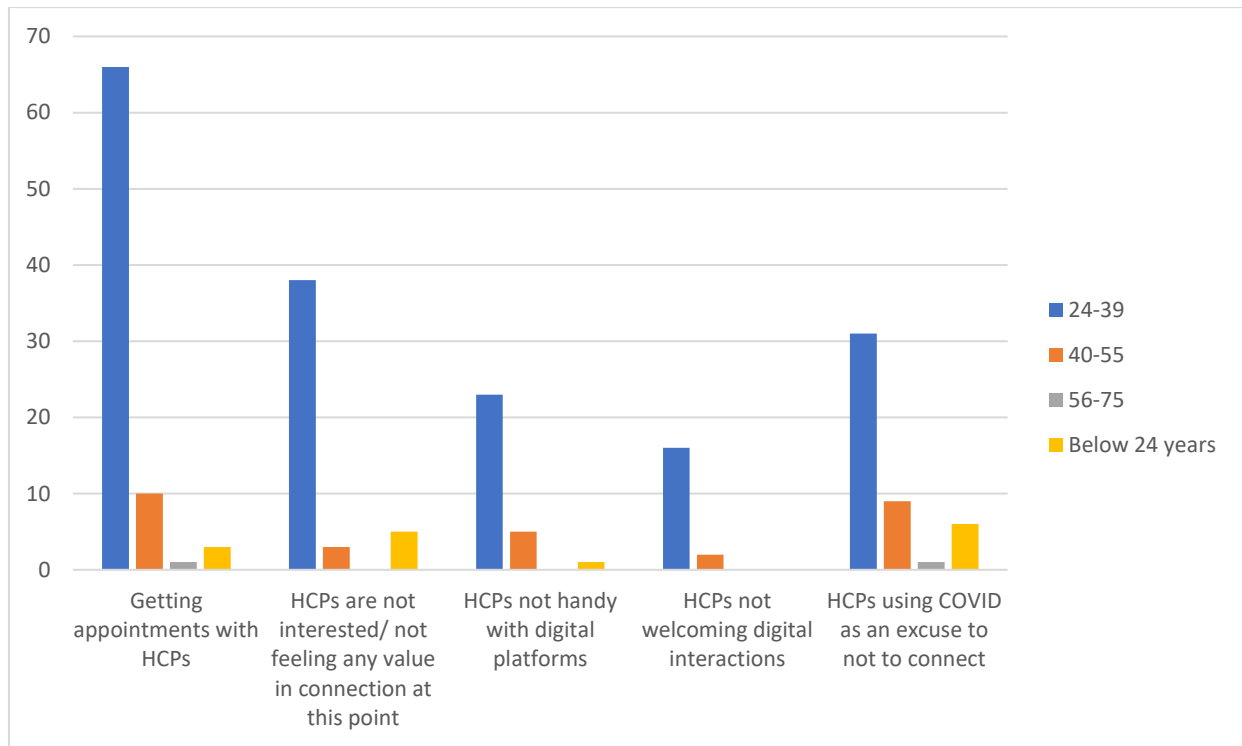
If we compare demographically people of age between 24-39 are facing more problems to connect with physicians when compared to the other age groups.

The main four key reason why pharma organization struggle to engage with hcp online are

1. Holding HCP attention-Doctors are continually spending time online to stay up to date. According to one research 63% of HCP in Europe spend more than six hours per week, so they allow less time or no time to pharma
2. Uninspired content-In the online physicians can stop engaging at any point if it is not meaningful or relevant to them. In other words, if pharma is not relevant to them in the first 10 seconds, all they need to do is close the tab/window. It takes one click.

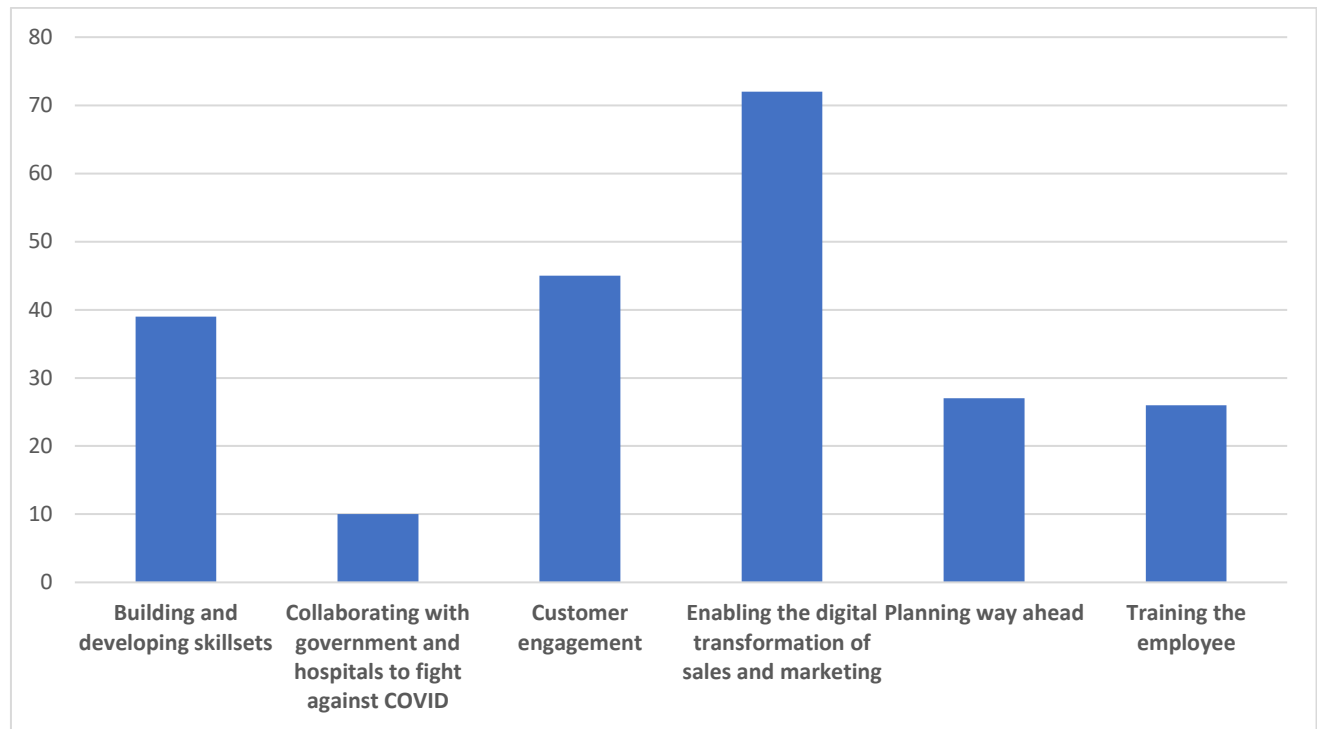
3. Inexperience-Lack of expertise in this area There is also a lack of digital leaders who both have skills and can lead the digital transformation.

4. Outdated processes- On top of this, the top 20 countries in a big pharma organization may use five different CRM systems, so it is very difficult to harmonize and create a global, digital multichannel strategy



Graph 22: comparison of age with challenges

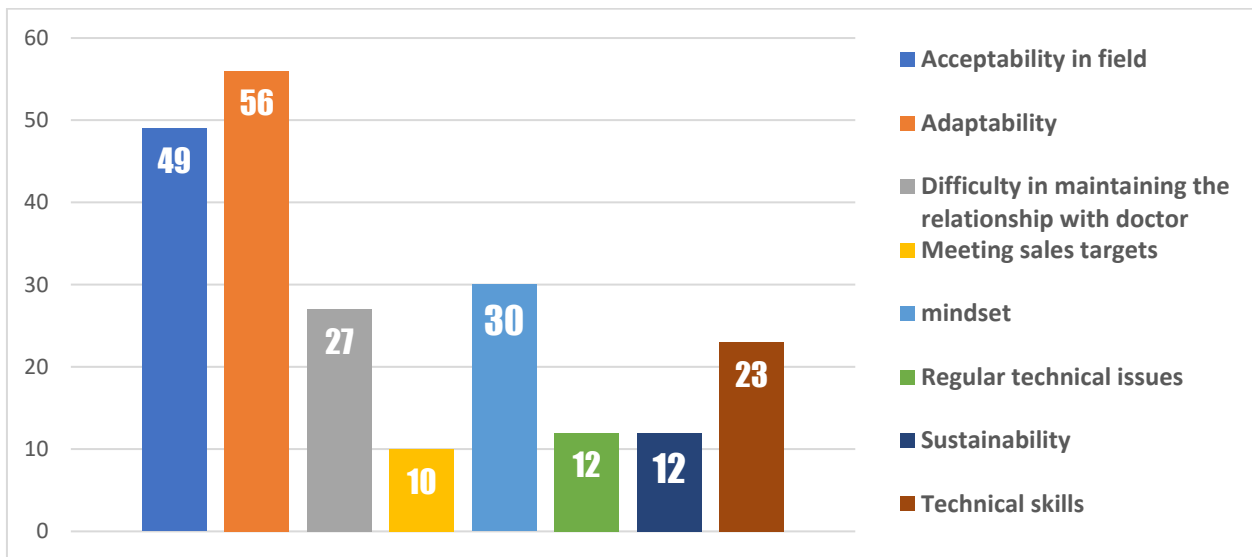
5. What has been the priority of your organization during lockdown?



Graph 23: priority of organization during lockdown

32% of professionals said that first and most important priorities of the organization is Enabling the digital transformation of sales and marketing second 20% customer engagement and third 18% building skillsets.

6. What do you think is the most important challenge of digital marketing?



Graph 24: Challenges of digital marketing

In the terms of digital marketing 26% adaptability 22% accessibility in field and 14% mindset are the most important challenges.

7. Do you think adapting to digital marketing will lead to optimization of field force?



Graph 25: Adapting to digital marketing

Analysis state that, vast majority of the respondents are expecting optimization in field force due to transformation to digital marketing.

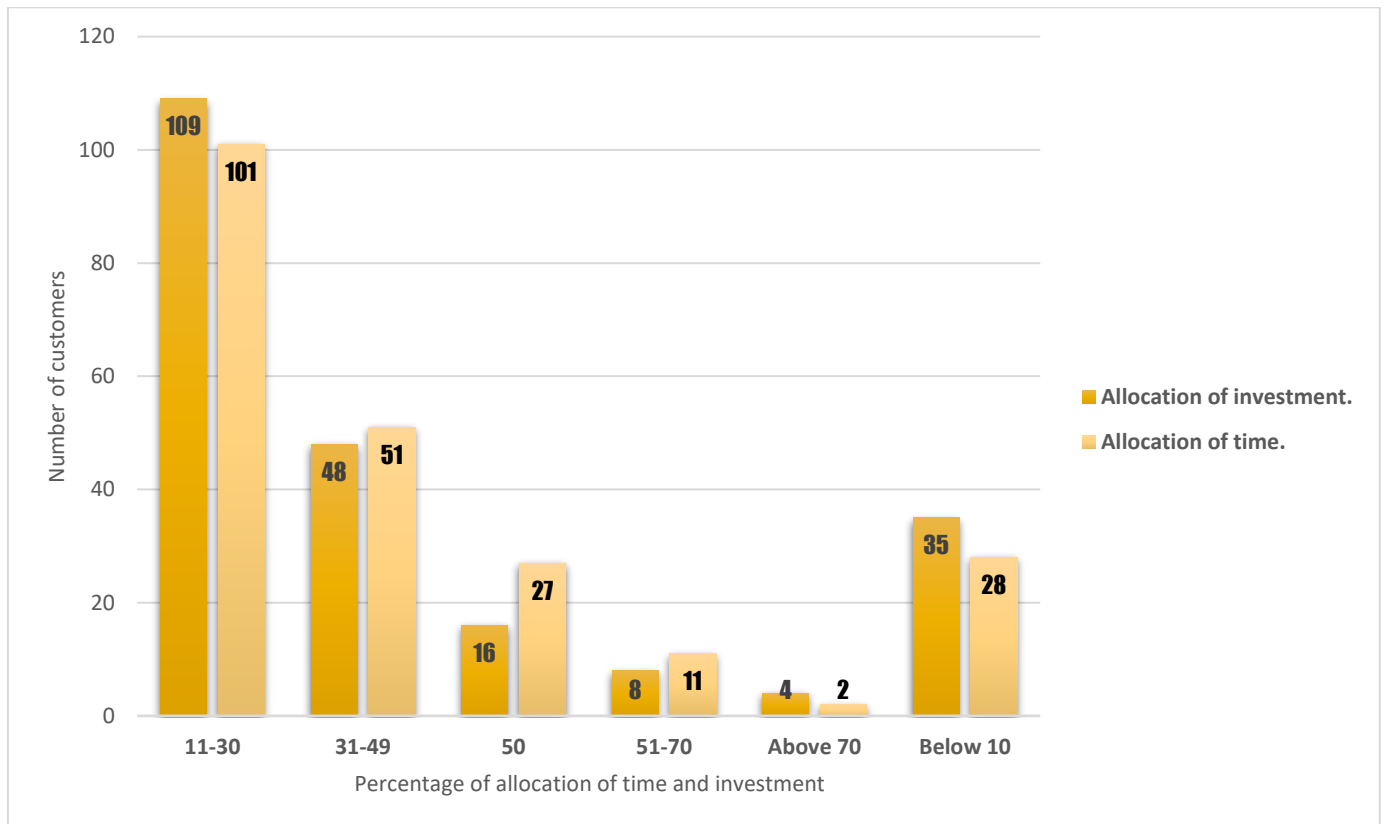
According to researchers at Global Data, virtual platforms will experience an extra boost after already having a transformational impact on the healthcare landscape, due to the impacts of the COVID-19 coronavirus

Pharma sales to increasingly rely on virtual platforms due to COVID-19, says report

With more patients to see every day and more administrative work to do, physicians just don't have time for sales reps.

8. Once the lockdown is lifted, how much percentage change in terms of allocation of investments in digitalization, will be seen in your organization's sales and marketing activities?

There are 38% of people who believe that once lockdown is lifted, 11-30% of companies will start investing on digitalization process, whereas 15% of people have a say that there will be 31-49 percentage of investment change towards digitalization.

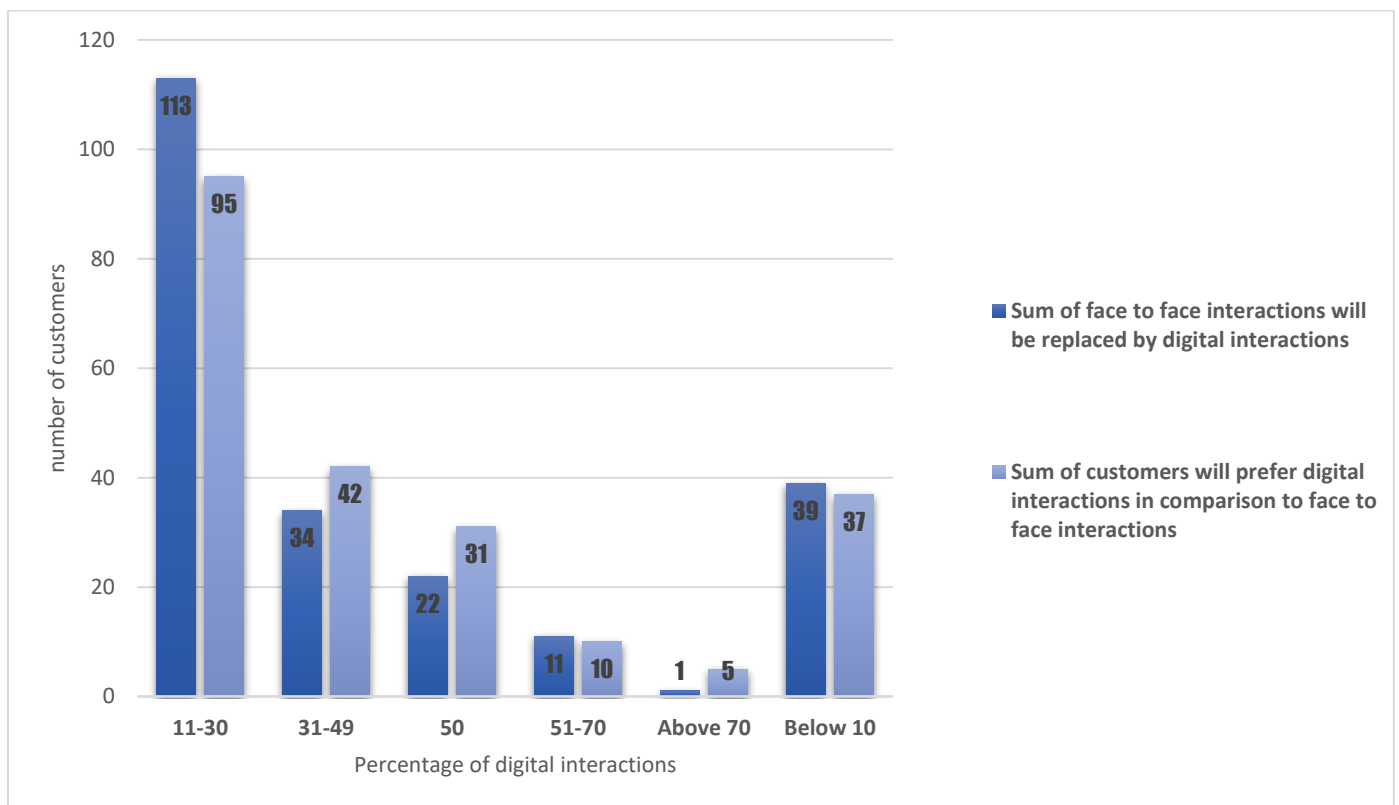


Graph 26: Percentage allocation of time and investment

9.To what extent, the face to face interactions will be replaced by digital interactions? (comparison with age)

It is clear from the data that 41% of people from age 24-39 hold opinion that there will be 11-30% of alteration to digital interaction from traditional type of interaction. Whereas people of age 40-55 believed that only 13% change will be available to see for the same.

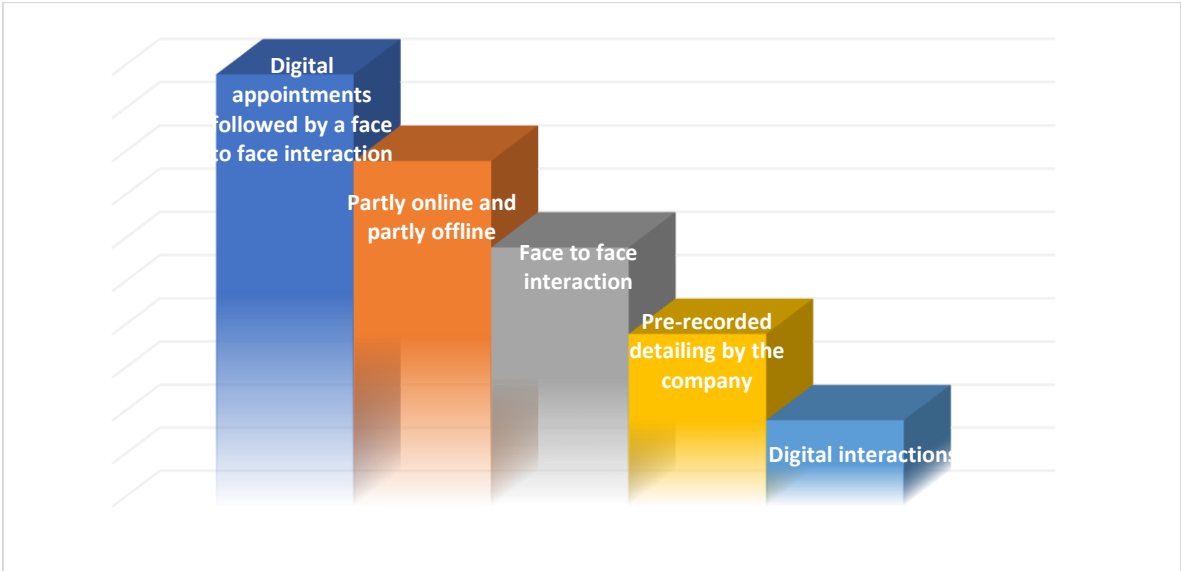
10.What percentage of customers will prefer digital interactions in comparison to face to face interactions? (comparison with age)



Graph 27: Percentage of digital interactions

33% of people from age group 24-39 give their opinion there will be 11-30% of customer will prefer digital interaction whereas only 5% of people of age group 40-55 believe with the same.

11.Rank in order of preference, the mediums that can be used for interactions with HCP’s post covid.



Graph 28: Medium of interaction post COVID

The professionals prefer to have a face to face interaction followed by the digital appointments which is also the second most preferred way of communication by the physicians in our survey.

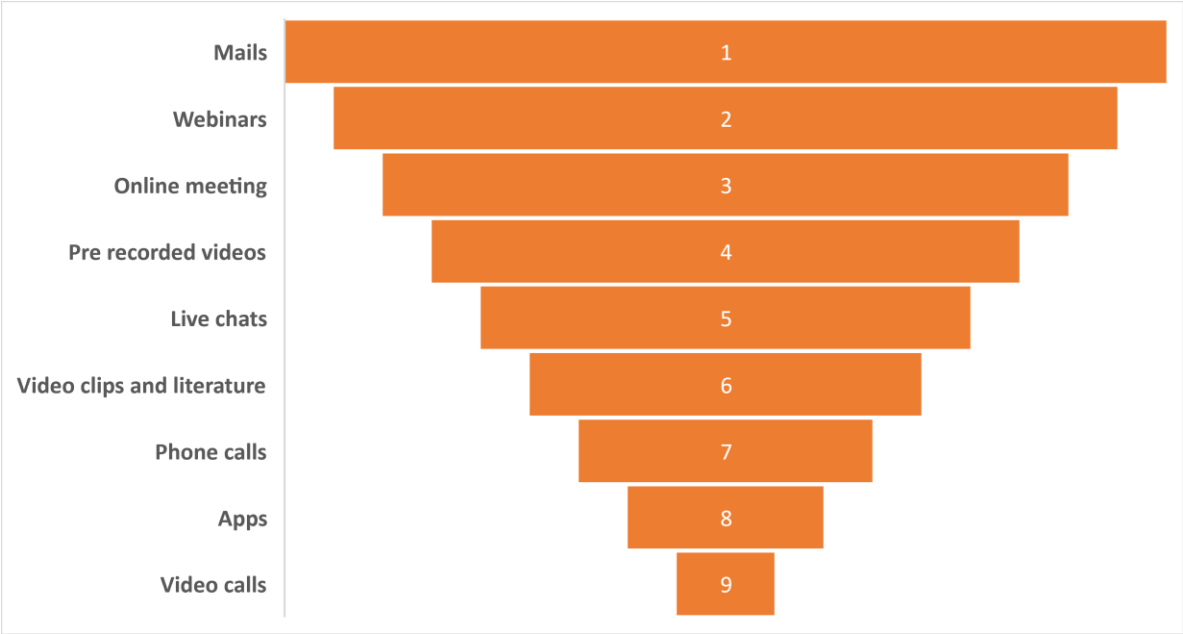
12. Rank in order of preference, starting from the service most appreciated by the customers.



Graph 29: Service appreciated by customers

The physicians want to know about the product availability followed by information about literatures and then new drug awareness and has given the last rank to CMEs amongst the four.

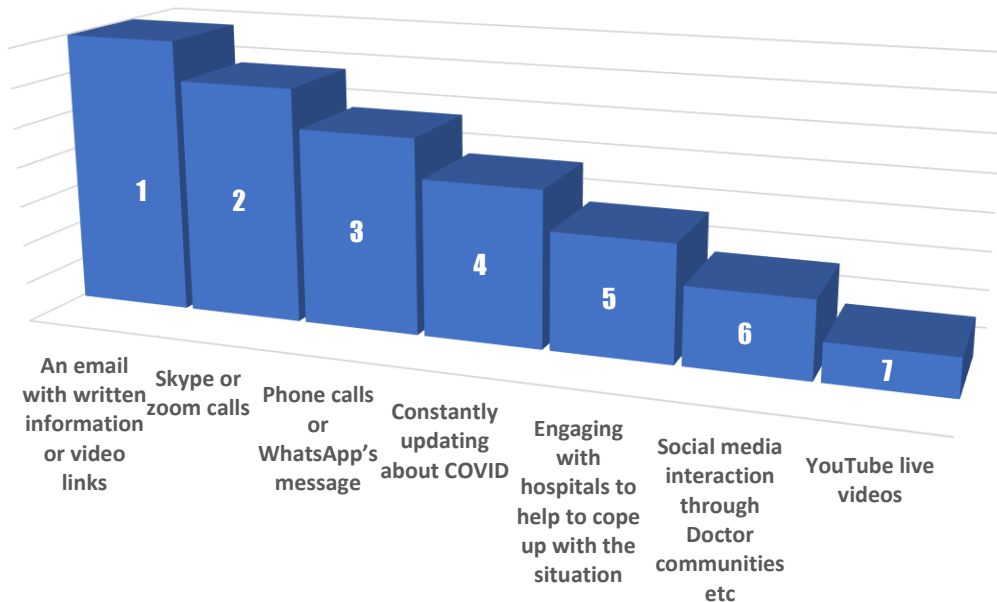
13. Rank in order of preference, the best way to pitch your products other than having the face to face interactions with doctors, post covid



Graph 30: Ways of pitching apart from face to face

When asked to professionals to rank the best ways to pitch their products other than having a face to face interaction – mails, webinars, online meetings, prerecorded videos and live chats were given top five priorities.

14. Rank in order of preference, the strategies alternate to face to face interactions, that can be followed by the organization to engage the customers.



Graph 31: Strategies alternate to face to face interactions

The strategy currently used by the professionals in alternate to the face to face interactions is sending an email with information and prerecorded video links and the second rank is given to the skype or zoom calls and then next rank is bagged by the phone calls or WhatsApp messages.

RECOMMENDATIONS

- Study should be conducted with larger sample size to get more appropriate results.
- The physician study has to be focused and in-depth analysis focusing the geographical location, age, gender and specialties might open up a new perspective to the study.
- Addition of open-ended questions in the survey might give a new dimension to the study as the respondents are not forced to choose one from the given options.
- Qualitative surveys like group discussions, personal interview etc., will include and answer a lot of puzzled and unanswered questions along with the reasons why the respondent chose the particular option in the survey.
- Convincing physicians and pharmaceutical professionals for qualitative research became a herculin's task as they were very much concerned about the confidentiality of the information they were to share and were not ready to disclose any information as they feared the breach of the information about what their company is doing now and in the future as a result of which we were unable to conduct qualitative research with the respondents, in spite of our repeated reassurance provided by our team. If the questions were more generic and if they were more adequately reassured, possibilities of respondents opening up for qualitative research are more.

CONCLUSION

Corona Virus Disease (COVID-19) has caused 25-50% decrease in the hospital visits by the patients. This drop is seen as the result of fear of exposure to infection by the patient due to which majority of the doctors have started digitally consulting their patients. Phone and video calls are the medium currently followed and the most preferred medium of consulting patients in the future due to extremes of age, socioeconomic status, bandwidth issues, level of education and ease of usage when compared to the available telemedicine platforms. The important advantage of telemedicine is that the patients are less prone to infections and the major challenges are the inability to perform physical examinations and physicians not being specially taught to perform digital consultations effectively. Physicians expect the pharmaceutical companies to develop digital tools that best helps their patients to comprehend the treatment plan when consulted digitally but the most preferred medium of patient consultations as said by physicians is to have face to face consultation in the future. When spoken about the digital transformations of meetings of pharmaceutical professionals with physicians in order to pitch their products, this study reveals that physicians prefer to have digital interactions followed by face to face interactions. Further, the physicians want the professionals to help them with online platform management. Physicians prefer to have meeting with pharmaceutical professionals twice a month with well trained professionals with good communication skills who has adequate technical skills and who can briefly explain about the product.

The pharmaceutical professionals survey reveals that the major challenge faced by the organization to engage physicians during the lockdown was getting appointments with physicians followed by physicians using Covid as an excuse to not to give appointments for meeting with professionals. The professionals have said that the priority of the organization is to enable digital transformation of sales and marketing activities. The most important challenge of digital marketing is the adaptability and acceptability in the field, according to the professionals and a vast majority of them are expecting the optimization of field force in the near future. When the preferred mode of meeting is to have face to face consultation, the professionals also expect that 11-30% of face to face interactions with physicians will be largely replaced by digital meetings.

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QUESTIONNAIRE FOR PHARMACEUTICAL PROFESSIONALS

1. Gender
 - a. Male
 - b. Female

2. Age (in completed years)
 - a. Below 24 years
 - b. 24-39
 - c. 40-55
 - d. 56-75
 - e. Above 75 years

3. Designation
 - a. C-suite executives/ Directors/VP
 - b. Sales- customer facing/management roles
 - c. Marketing- product / Marketing management/Market Research
 - d. HR and training
 - e. Supply chain management
 - f. Production
 - g. Others, please specify

4. Challenges faced by your organization to engage HCPs during a lockdown.
 - a. Getting appointments with HCPs
 - b. HCPs using COVID as an excuse to not to connect
 - c. HCPs not handy with digital platforms
 - d. HCPs are not interested/ not feeling any value in connection at this point
 - e. HCPs not welcoming digital interactions

5. Rank in order of preference, the strategies alternate to face to face interactions, that can be followed by the organization to engage the customers.
 - a. An email with written information or video links
 - b. Skype or zoom calls
 - c. YouTube live videos
 - d. Phone calls or WhatsApp's message
 - e. Constantly updating about COVID
 - f. Engaging with hospitals to help to cope up with the situation
 - g. Social media interaction through Doctor communities etc
6. What has been the priority of your organization during lockdown?
 - a. Training the employee
 - b. Building and developing skillsets
 - c. Customer engagement
 - d. Enabling the digital transformation of sales and marketing
 - e. Planning way ahead
 - f. Collaborating with government and hospitals to fight against COVID
7. Rank in order of preference, the best way to pitch your products other than having the face to face interactions with doctors, post covid?
 - a. Mails
 - b. Webinars
 - c. Online Meetings
 - d. Pre-recorded videos
 - e. Live chats
 - f. Video clips and info about literature
 - g. Phone calls
 - h. App
 - i. Video calls

8. Rank in order of preference, starting from the service most appreciated by the customers?
 - a. Information about clinical trials and literatures
 - b. Updating the awareness of drug
 - c. Product availability information
 - d. CMEs

9. What do you think is the most important challenge of digital marketing?
 - a. Acceptability in field
 - b. Technical skills
 - c. mindset
 - d. Sustainability
 - e. Adaptability
 - f. Regular technical issues
 - g. Difficulty in maintaining the relationship with doctor
 - h. Meeting sales targets

10. Do you think adapting to digital marketing will lead to optimization of field force?
 - a. Yes
 - b. No

11. Once the lockdown is lifted, how much percentage change in terms of allocation of investments in digitalisation, will be seen in your organization's sales and marketing activities?
 - a. Below 10
 - b. 11-30
 - c. 31-49
 - d. 50
 - e. 51-70
 - f. Above 70

11.i. Once the lockdown is lifted, how much percentage change in terms of allocation of time in digitalization, will be seen in your organization's sales and marketing activities?

- g. Below 10
- h. 11-30
- i. 31-49
- j. 50
- k. 51-70
- l. Above 70

12. To what extent, the face to face interactions will be replaced by digital interactions?

- a. Below 10
- b. 11-30
- c. 31-49
- d. 50
- e. 51-70
- f. Above 70

13. What percentage of customers will prefer digital interactions in comparison to face to face interactions?

- a. Below 10
- b. 11-30
- c. 31-49
- d. 50
- e. 51-70
- f. Above 70

14. Rank in order of preference, the mediums that can be used for interactions with HCP's post covid.

- a. Face to face interaction
- b. Digital interactions
- c. Digital appointments followed by a face to face interaction
- d. Pre-recorded detailing by the company
- e. Partly online and partly offline

QUESTIONNAIRE FOR PHYSICIANS:

1. Gender

- a. Male
- b. Female

2. Age (in years)

- a. 24-39
- b. 40-55
- c. 56-75
- d. Above 75

3. Speciality

- a. Paediatrician
- b. Ophthalmologist
- c. Gynaecologist
- d. cardiologist
- e. orthopaedic
- f. psychiatrist
- g. General physician

4. COVID has the number of outpatients I see in a day.

- a. Increased
- b. Decreased
- c. Remains the same

4.i. If decreased, pls quantify

- a. Less than 25%
- b. 25 – 50%
- c. 51 – 75%
- d. More than 75%

5. Through which medium, are you consulting the outpatients during this pandemic?
- a. Face to face consultation
 - b. Digital consultations
 - c. Majority face to face and a little of digital
 - d. Majority digital and a little of face to face
6. If digitally consulting, what is the medium you are using to stay connected to your patients?
- a. Phone calls
 - b. SMS
 - c. video calling
 - d. email
 - e. WhatsApp
 - f. Digital Live
 - g. Social Media (FB, Instagram etc)
 - h. Pre-recorded videos
 - i. Available telemedicine platforms (Practo, 1 mg etc)
 - j. Webinars
7. Which media is effective, as in, meeting the objectives of treating patients?
- a. Phone calls
 - b. SMS
 - c. video calling
 - d. email
 - e. WhatsApp
 - f. Digital Live
 - g. Social Media (FB, Instagram etc)
 - h. Pre-recorded videos
 - i. Available telemedicine platforms (Practo, 1 mg etc)
 - j. Webinars

8. According to you, are the challenges of digital consultations is

- a. Inability to examine the patient
- b. Patients not able to explain themselves especially in case of pedo patients
- c. Lack of patient- doctor relationship
- d. Patient's affordability to smartphone
- e. Privacy and trust issues
- f. Patient not able to comprehend the treatment plan
- g. Time scheduling and communication lapse
- h. Collection and maintenance of patient records
- i. Expectation of patient to be always available on call / Multiple call consultations

8. According to you, what are the advantage of digital consultations is

- a. Reduced overhead expenses
- b. Supplemental/additional revenue
- c. Less exposure to illness/infection
- d. Lesser travelling and waiting time by patients
- e. Remote accessibility
- f. Reduction of white coat syndrome

9. Are patients happy with the digital consultations?

- a. Don't know
- b. Yes
- c. No If No, please specify

10. What do you think will be the preferred way of consultation, post covid?

- a. Digital
- b. Face to face
- c. Filtering through digital and calling to office only the patient's you need to physically examine or take special care of
- d. Majority digital and little face to face
- e. Majority face to face and little digital

11. In digital consultations, the patients consult remotely with physicians and this can lead to information gap. How do you think that these gaps can be filled by pharmaceutical companies?
- Providing patients with quality and credible digital information
 - Easy online tool to counsel patient
 - Creating apps for comprehensive understanding of a condition
 - Using social media for improved insights about patient awareness of disease and adherence to treatment regimen
 - Information about developments in therapy
 - Creating awareness about digital consultations
12. Digitally, how frequently would you like to see the pharmaceutical professionals?
- Once a month
 - Twice a month
 - Thrice a month
 - Four times a month
13. What do you think will go missing in online interactions when compared to offline interactions with medical representatives?
- Doctor – Representative relationship
 - New product awareness
 - Drug awareness
 - CME's
 - Clinical trial information and literature
14. How would you like the Pharmaceutical companies to support you with the digital transformation of consultations?
- Webinars
 - Personal demos
 - online platform management
 - online marketing
 - Technological advices
 - Educating patients about digital consultations

15. What kind of customer support would you like to prefer from pharmaceutical organizations?
- Information about availability of drugs
 - Information about drug usage and drug awareness
 - CMEs
 - Webinars
 - Short and informative information about literatures
 - Clinical trial information
16. What traits do you value the most in medical representatives whom you wish to communicate with either digitally or via face to face interactions?
- Balance in claims
 - Brief detailing along with product knowledge
 - Personality
 - Well trained and good communication skills
 - Responsiveness
 - Empathetic
 - High standards of ethical values
17. Rank in order of preference, the medium of interaction, that you would like to connect with pharmaceutical professionals' post Covid?
- Face to face interaction
 - Telephonic communication
 - Video calls
 - Live (Instagram Live, Facebook Live etc)
 - Webinar
 - Social media platforms
 - Emails
 - SMS
 - Flyers
 - Apps
18. Rank in order of preference, the best possible way in which you want the pharmaceutical companies to interact with you post covid?
- Face to face interaction
 - Digital interactions
 - Digital appointments followed by face to face interaction
 - Pre-recorded detailing by the company
 - Partly online and partly offline

Part 2: Report of online course.

BECOME A PRODUCT MANAGER

I. COURSE DESCRIPTION

This course is about the fundamentals skills which a product manager should possess. This course taught me about some basic key points that a product manager should know to become a successful product manager. This course consists of 13 hours video of 17 sections and 140 lectures.

Instructors: Cole Mercer and Evan Kimbrell.

Learning methodologies: Lectures / Videos/ PDF/ Quiz/ Reading Material.

Delivery provider: Udemy.

Outcome of course: Certification.

II. COURSE CONTENT

This course consists of 16 sections and 140 lectures.

Section1: Overview

This section was all about what this course is and what I will going to learn from this course.

Section 2: Introduction to product management.

This section was all about what is product management and who is a product manager, different types of product managers, and the difference between product management and project management.

Section 3: Introduction to product development.

This section was about the product lifecycle and product development process. This section also includes, what is Lean product development, what is agile, scrum, Kanban, waterfall development, and real-world examples.

Section 4: Ideas and user needs.

This section gives a brief introduction about Ideas and user needs and the difference between users and customers.

Section 5: Competitive and market analysis.

This section was all about market research and finding competitors. This section includes, what are criteria of understanding competitors. What is the feature table, how to monitor competitors, what do we ultimately care about PM?

Section 6: Customer development.

This section was all about customer development and the key difference in customer development. This section includes, and four types of interviews and finding interviews internally and externally, how to frame interview questions for an interview, and how to conduct an interview. And also, about how to build a user persona for an interview.

Section 7: Designing and running experiments.

This section includes, what is MVP and its techniques, 7 steps to run MVP, identifying the assumptions, making decisions, what is the hypothesis, what is a minimum criteria for success, and how to evaluate results and create learning from them.

Section 8: Conceptualizing the solution.

This section includes what is wireframing, mock-up and prototype, and how to do sketching.

Section 9: Metrics for product managers.

This section includes an introduction to metrics and metrics types and how to pick Good Metrics and using the HEART and AARRR metric framework.

Section 10: Building the product- Project management for a Product manager.

This section includes an introduction to Epics, user stories and Acceptance Criteria, Estimations and velocity, Road-mapping and Prioritization.

Section 11: Working with people and stakeholders.

This section includes the introduction to General Communication Skills, Working with Engineers, Working with Designers, Working with Executives, and others.

Section 12: Technology for product managers.

This section includes the importance of technology for product managers. What is The Cloud, Servers, Clients? It also includes the information about Front end, Back end, and Tech Stacks and also about Application Programming Interfaces.

Section 13: What you should to do prepare yourself for the job?

This section includes information about getting relevant experience, building a portfolio with a side project, and Branding yourself.

Section 14: How to find a job for product management.

This section is all about where to look for a job and what to look for?

Section 15: How to get Product manager job.

This section is all about how a Product manager should approach the job. This section includes Resume writing, how to face any interview, and answer questions in an interview.

Section 16: After you have got the job.

This section is all about what a product manager should do when he/she gets a job.

III. KEY LEARNINGS FROM THE COURSE

1. The product manager role and their responsibilities: -

-  "The uncertainty of the product management role is close to its essence."
-  The role of product managers depends on which organization they are working in.
-  The PM is a communications hub, a prioritizer, an investigator, an announcer, but most significantly, they're responsible for the ultimate success of the product
-  The PM is not always in charge of a whole product, but of certain sections of it.

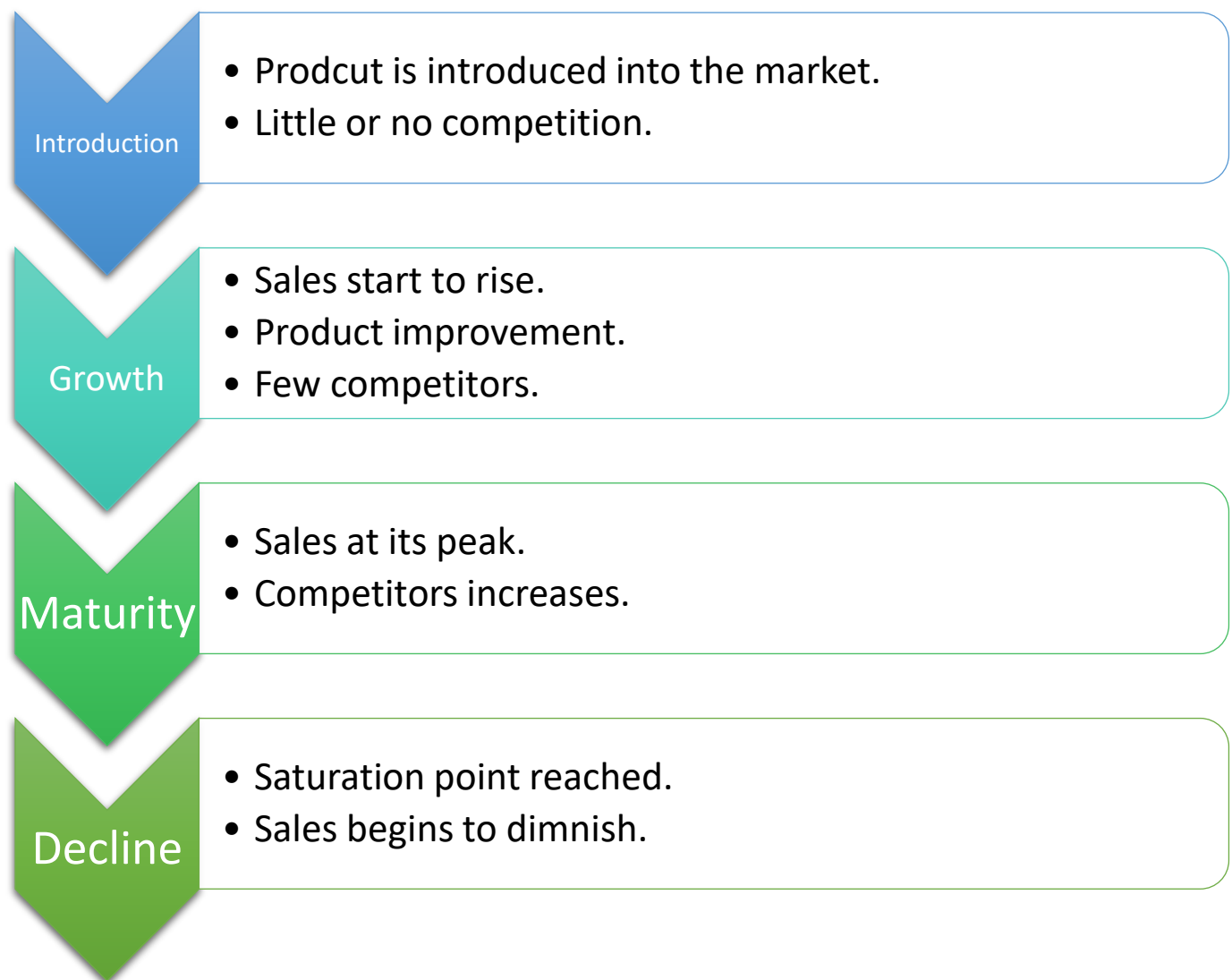
2. The differences between the 3 types of product managers: -

-  Internal Product Manager: It helps the people inside the company.
-  Business to business PM: They deal with the salespeople of other companies.
-  Business to consumer PM: They deals with the users and get feedback from analyzing the data.

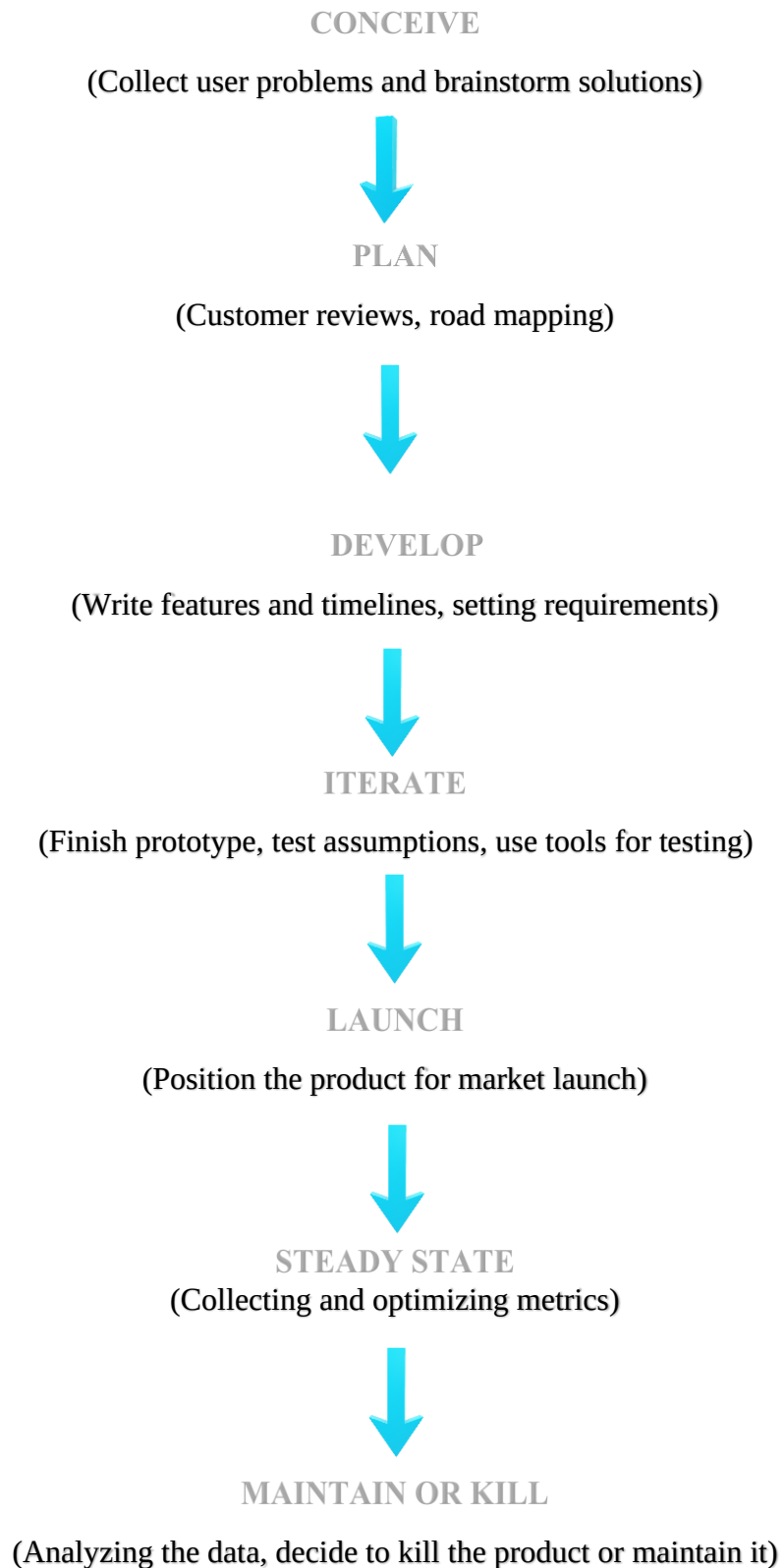
3. Product management vs project management: -

- ✚ Product managers are responsible for product success, on the other hand, project managers are responsible for completing a project.
- ✚ As a product manager, your success is defined by KPI or metrics.
- ✚ A project has to be done on a specific timeline and a specific budget

4. Phases of product lifecycle: -



5. 7 steps of product launch: -



6. Framework and its types: -

✚ The framework is defined as cutting all the unnecessary work or effort until you are sure that you need it.

Types:

- **The Agile framework** is a way of applying the lean mindset to software development.
- A **Kanban framework** board has columns with cards that you can move from one column to another, to reflect the state of the item: "To do", "In progress", or "Done".
- In the **Waterfall framework**, we consider all the features of a product and transform them all at the same time.

7. Types of competitors: -

✚ Direct: They target the same customers like us. Customers choose between us and them.

✚ Indirect: Their approach to solving the same problem is different. Their customer may overlap with ours.

✚ Potential: They target the same customer group but they didn't solve the same problem as of you.

✚ Substitute: They solve the same core problem but their way of dealing with the problem is different. Customers can substitute our product with them.

8. Feature table: -

The feature table is a comparison plan we use to relate our product to our competitor's product on a list of dimensions.

✚ Draw a table with columns and rows.

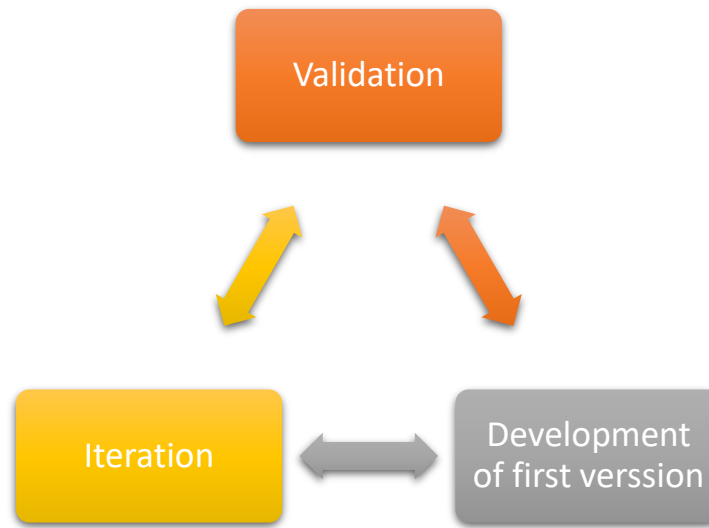
X-axis: Direct Competitors.

Y-axis: Comparable features and factors.

9. Customer development cycle: -

Customer development is defined as a procedure to remain in contact with the customers to get the ideas, feedback, hypothesis, and change the product accordingly.

Customer Development Cycle: -



10. Types of interview: -

- ✚ Exploratory interview.
- ✚ Validation interview.
- ✚ Satisfaction oriented interview.
- ✚ Efficiency interview.

11. MVP-Minimum Viable Product.

- ✚ An MVP is a small version of the new product which is used to collect the maximum amount of validated inputs about customers.
- ✚ As a product manager in a big organization, you have to select an MVP that is a basic version of your product, in the minimal resources.
- ✚ MVP experiments will give numerical quantitative data, then we have to get the qualitative data from the customers.

7 steps of MVP: -

1. Determine what are your problems and solution is.
2. Select your riskiest assumption,
3. Make a hypothesis for the assumption.
4. Select your minimum criteria for success.
5. Select a suitable MVP and make a strategy.
6. Run the MVP experiment.
7. Analyze the result of the experiment and make learning.

Riskiest assumptions: The Riskiest assumption is that assumption if it fails then the product will also fail.

Hypothesis: Hypothesis is a declaration that you believe to be true, with regards to the assumptions.

12. Wireframes and metrics: -

- ✚ Wireframes can be a guide for websites or apps that layout the structure about what are you building.
- ✚ Wireframes are not accurate.
- ✚ Wireframes help in sketching your idea.
- ✚ Wireframes make it easy to present our ideas.

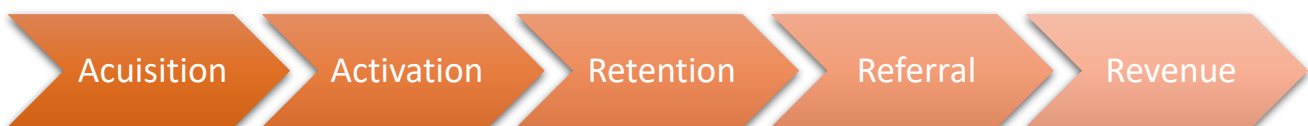
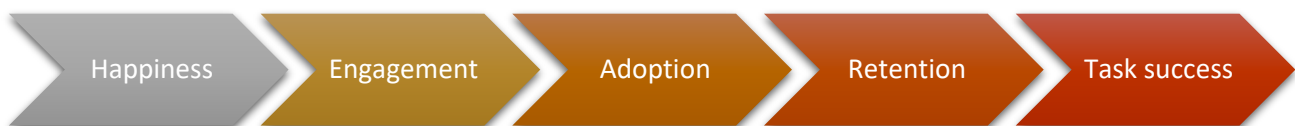
Metrics can be a measurement or number which used to identify, what is happening with our product.

Ex: KPI.

Types of metrics:

1. Growth and activation metrics: Measure the growth of the product.
2. Retention metrics: Measures the coming back of customers to the product.
3. Engagement metrics: Measures the time of engagement of the customers.
4. User happiness metrics: Measure the happiness of customers from your product.
5. Revenue metrics: Measures the revenue you are generating.

✚ H.E.A.R.T and A.A.R.R.R metrics: -



IV. SKILLS LEARNED

- ✚ Role of product manager in different size of companies.
- ✚ Identifying and utilizing efficient resources.
- ✚ How to imply product lifecycle for a product.
- ✚ Understanding customer needs and wants.
- ✚ How to understand the core problem of the product.
- ✚ Finding competitors and competing products.
- ✚ Finding potential interviewees.
- ✚ Building user personas based on data.
- ✚ Role of technology for product manager.
- ✚ Product manager in customer development process.
- ✚ Structuring and running customer interviews.
- ✚ Email writing to attract more customers.
- ✚ How to select MVP and run MVP experiment.
- ✚ AARRR and HEART principle.
- ✚ How to create a product roadmap.
- ✚ How to communicate with different departments peoples related to product.
- ✚ How to self-brand online and get a prefect job