



A Study of Influence of Digital Marketing Strategy over Conventional Marketing Practices in Pharmaceutical Industry

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Abstract

This research paper aims to identify the influence of Digital marketing strategy over conventional marketing practices in Pharmaceutical industry. The usage of conventional marketing practices in pharmaceutical industry is a older practice and have become outdated and has many demerits associated with it. The Evolution of Digital marketing strategy and tools like SEO (Websites), Social media marketing, E-mail advertising, Website blogging are the effective digital marketing tools, which can improve the marketing practices of Pharmaceutical industry. Here Google questionnaires are used as a primary data gathering tool to gather essential data from targeted population. Targeted population consisted of sales representative of pharmaceutical industry, industry personnels, doctors and public. Quantitative research process helped in determining the influence of digital marketing handles on conventional marketing practices of Pharmaceutical industry. In addition to it, Stratified sampling technique was used to select the units for this study. Test- retest reliability method was used to check the reliability and validity of the questionnaires in this research study.

Keywords: DM- Digital marketing, PPC- Pay per click, SEO- Search engine optimization, UX- User experience.

Received 10 June, 2023; Revised 20 June, 2023; Accepted 23 June, 2023 © The author(s) 2023.
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I. INTRODUCTION

Digital media is a integral part of our life. In today's scenario, in pharmaceutical industry digital marketing has replaced the traditional marketing strategies. It is mainly due to better interaction of social media with end users, less time consuming process and excellent cost benefit ratio. In many different countries digital marketing has generated a great interest in the use of social media. Hence due to wide spreadblity of social media handles in world community can easily make social connections and share information between them.

The Indian pharmaceutical market is a ever changing domain from the beginning of its origin in the early 19th century till date. The traditional forms of marketing are the only known techniques in the pharmaceutical industry where the patients' needs are fulfilled through the registered medical Practioners. In recent times of covid-19 pandemic made the lockdown across the India, where the direct face to face meeting with doctors served to be on risk side. Hence the emergence of digital marketing played a role into it. Pharmaceutical marketing is the field of marketing, which is solely focused on physicians, chemists, retailers and patients. It includes the medical representative work force like MR, who as represeantive of the pharm company visits the clinics, physician's, chemists shops where in provides drug samples for promotion, detailing of product literature, marketing campaigns and attending event meetings are a part of pharmaceutical marketing. Traditional pharmaceutical marketing is a marketing activity which includes the introduction of pharm product in front of customers. Doctors are acting as a intermediate between the pharm companies and customers (patients) to deliver the medicines to humanity.

Types of digital marketing:

1. Search engine optimization (SEO).
2. Social media marketing.
3. Pay per click advertising.
4. E-mail communication.
5. Website blogging.

The main purpose of digital marketing in healthcare organizations is to provide medical data and information to patients and doctors hence they can easily access medical data and medical information for better health outcomes. But still there has to be improvement with digital marketing platforms of pharmaceutical companies. Lack of understanding of digital methods, lack of authentic scientific information about drugs, restrictions of the government serves to be some of the obstacles for bringing digital marketing practices in practice in the pharmaceutical and healthcare industries.

II. LITERATURE REVIEW

S ANSH KUMAR (2020) et.al, conducted a research study of impact of digital marketing on pharmaceutical growth of India, where different concepts like pharmaceutical marketing, omni channel marketing and digital marketing applied in pharmaceutical domain were discussed. It included a detail study on marketing strategy for PHYGITAL in terms of both traditional and digital marketing strategy. Population of the study was general physicians, MR, and community people. Stratified sampling technique was employed in the study. Hence this adopted the survey method for data collection from target population [International journal of pharmaceutical research and applications, volume 6, page no20]

MASOOD JAWAID (2018)et.al, conducted a research study on pharmaceutical digital marketing and its impact on healthcare physicians of Pakistan. Here cross sectional study included physicians working in various clinical settings for at least 5 years. Total number of targeted population were 50. It was a survey based study to gather data regarding the social media tools usage, awareness, knowledge of digital marketing. The results showed that what Sapp, melon park was most frequently used mobile apps for information regarding health.[National library of medicine, volume10, page no221]

GANESH BHARSKAR (2020)et.al, conducted a research study on Digital marketing in pharmaceutical sector. It was questionnaires' based survey including offline of data collection where questionnaires' related to demographic and technical knowledge related to digital marketing was been collected. A descriptive statistics were applied to determine the relationship between the variable in the study. A total of 100 participants participated in the survey study. This study was performed to check the up gradation of digital marketing trend in pharmaceutical companies [Research gate, volume 2, page no 99]

MANOJ KUMAR and BHUSAHEB LONDHE (2019)et.al, conducted a research study on relevance and impact of digital marketing in Indian pharmaceutical industry with specific references to super specialist. The doctors involved in study are MD and DM specialized. IN depth interview was done with 50 super specialist doctors before joining a major hospital of self-practice. All the study subjects were analysed on basis of a detailed questionnaires' on how, what, when the subjects used the digital marketing tools, and what are the outcomes of it. Majority answered that company websites play a major role for medical information.[International journal of interdisciplinary research and innovations, volume 7, page no 22-23]

NINA ANIGBOW (2020) et.al, conducted a research study on digital marketing in the pharmaceutical industry of Russian market. Here the target audience were the Russian physician's and general public. The targeted audience were 100. The study was conducted to understand the perception of normal public of using of digital marketing handles instead of traditional marketing practices. The result showed that most of doctors and public suggested for change towards conventional marketing and adopting digital marketing services in the pharmaceutical industry.[International journal of applied sciences, volume11, page no 521].

KAVIT SHAH (2011) et.al, conducted a research study on best 10 digital marketing strategies for pharm industry. This researched involved physical interactions with industry experts, medical marketing experts. A set of pre prepared questionnaires' were submitted to these people. The reviews on advancements in business models, market strategy and capture, competitiveness such type of data was collected and analysed. Hence result showed that most of participants appreciate for development of digital marketing in pharmaceutical industry [digital marketing publications, volume 5, page no 99]

TAIWO OYEKUNLE (2015) et.al, conducted a research study of the Roles of digital marketing as a tool for creating and sustainable competitive advantage. The primary objective of the study was to identify the marketing strategies of the companies by conducting interviews of the marketing managers. Both primary and secondary research strategies which include interviews and thematic analysis was applied. Both narrative and thematic comes under qualitative research. Non probability sampling method was used in the study. Both questionnaires' and personal interview was adopted in this study[Journal of European pharmaceutical's, volume 8, page no 88]

KARAN SHAH (2019) et.al, conducted a research study of “Why does the pharmacy industry needs a digital transformation?”. The participants involved in this study were healthcare professionals like doctors, pharmacists and nurses. Total targeted population was 101. This study involved a survey method of data collection by both Google questionnaires’ and personal interview with individuals. It collected a opinion s of people for adoption of digital marketing concept in pharm industry. Most individuals showed the need for change and implementation in IT technology in pharmaceutical sector [Journal of innovation and research, volume 2016, page no 997]

HASAN AND UMESH CHOUDHARY (2021) et.al, conducted a research study on digital marketing strategies at the pharmaceutical sector. The objectives of the study was to comprehend the proper usage of digital marketing in the pharmaceutical industry. Most it was based on secondary research study. Findings of the study stated that social media is emphasizing the impact of consumer to consumer interaction conversation method. It included the demand for secured, safe and authentic website development which provided the actual medical information of data about medicines. Participated urged for implementing digital marketing in the pharmaceutical industry [Innovative journal of research and management, volume 5, page no 77].

RICHA MISHRA (2018) conducted a research study on A study on impact of digital marketing on online medicines and healthcare products sales in Uttar parades. Objectives of the study were to find out the factors that influence consumers to buy the medicines and healthcare products online and study the impact of digital marketing on consumer purchase medicines and healthcare items. Both primary and secondary source of data was used for research study. A total of 100 people sample size was considered of Uttar Pradesh community. Both simple charting and statistical tools were used and empiric formula used for data analysis. The result showed that people are more inclined towards digital marketing as source of medical information.[International journal of applied sciences, volume 2, page no 91]

III. RESEARCH METHODOLOGY

The methodology includes the development of the Google questionnaires’ survey and serves to be a survey method. The 1ST part includes questions related to name, age, gender, occupation of the participant (demographic information). The 2nd part includes questions related to which type of social media handle you use, which technology does the organization use for marketing, preference’s towards conventional marketing or digital marketing, specifically which type of digital marketing platform is used, awareness about the digital marketing platforms, awareness about digital marketing initiatives in pharmaceutical industry and henceforth. Hence data was collected, cleaned, analysed and reported.

3.1NEED OF THE STUDY

Pharmaceutical industry is a very Niche domain. It deals with the preparation of medicinal products, drugs and medical devices. Pharmaceutical industry has a net worth of 253 US billion dollars worldwide. In the past time periods, pharmaceutical companies were devoting a major amount of budget to marketing services and field force maintenance (Medical representatives). In the conventional marketing practices, medical representative physically meets with the doctors/physicians and stockiest and does the product demonstration and product detailing in a physical mode. Adopting such a conventional old marketing strategy was non-efficient for the companies. Limited reach, expensive approach, laborious work were some of the demerits of the conventional marketing practices. As the time passed, pharmaceutical industry gradually started to adopt the digital marketing strategy/digital tools in the industry. In a recent scenario, during COVID-19 pandemic, several governmental rules and regulations were imposed for public, not to step out of house.

This situation effected the traditional marketing practices of pharmaceutical industry. Hence medical representatives were not able to meet to doctors in a physical mode. This became one of the reason for the emergence of digital marketing strategy and replacing the old conventional marketing practices of the pharmaceutical industry. Cost effectiveness, better doctor detailing, better brand awareness, improved sales, and competitive edge in the market are some of the prominent benefits of digital marketing strategy. Adopting such a strategy will save large amount of funds of pharmaceutical companies. Which can be efficiently used in developing and upgrading other departments of the industry. This initiative will increase the efficiency and productivity of pharmaceutical companies. Hence this study aims to increase the concern for adoption of digital marketing strategy replacing conventional marketing practices of pharmaceutical industry.

3.2 OBJECTIVES OF THE STUDY

1. To analyse the digital marketing strategies and how the pharmaceutical companies are adopting these new innovative digital marketing strategies, which leads to competitive advantage for pharmaceutical companies.

2. To compare the impact of traditional marketing practices with that of innovative digital marketing strategies on pharmaceutical industries.

3. To better understand how digital marketing strategy changes the conventional marketing practices in pharmaceutical industries.

4. To investigate the impact of digital marketing practices on business model of the pharmaceutical companies.

5. To understand how the digital marketing strategies can improve the marketing practices of pharmaceutical industry.

3.3 HYPOTHESIS

- H1o: There is no impact of digital marketing strategy on business model of pharmaceutical companies. (Null hypothesis).

- H1a: There is a significant impact of digital marketing strategy on business model of the pharmaceutical companies (Alternate hypothesis).

3.4 SCOPE OF THE STUDY

In previous time periods, pharmaceutical companies were following the traditional marketing strategies like direct face to face promotional strategy which was performed by medical representatives towards doctors. Since after the recent time periods of Covid-19, there was a need and emergence for digital marketing practices over conventional marketing practices in pharmaceutical companies. In addition to it, digital marketing like social media handles serves to provide basic medical education, counselling to normal individuals. Hence it makes the educated for better health and prevention of diseases. Hence this research study will help us to understand the influence of digital marketing on convention marketing practices of the pharmaceutical industry. Hence digital marketing handles can be combined with traditional marketing practices, which will serve as a overall better marketing strategy to promote the medicines, which will not only be confined to physicians, but general public will also be able to get scientific inputs about the product, dosage, indications for use of the product. Hence we selected a group of 70 individuals as targeted population which includes MR, doctors, industry personals and general public. Google questionnaires' related to age, sex, gender, occupation were asked. In addition to it, mainly questions related to personal usage of social media, type of social media handle used, means of social media marketing in organization, awareness about digital channels and their influences in changing traditional marketing practices in pharmaceutical industry. Hence data was collected, analysed and reported.

3.5 RESEARCH DESIGN

Quantitative research process will help in determining the influence of digital marketing handles on conventional marketing practices of the pharmaceutical industries. In which specifically focus on casual research design, co relational research and experimental research process. Descriptive analysis is been used in this study. Descriptive analysis facilitates in collecting details about the activities, then compiling, tabulating, depicting and describing the information gathered. It uses Visual aids like Graphs, Bar graphs and pie charts to assist the readers in comprehending the data delivery and data understanding. In addition to it, Descriptive research design has been followed to analyse the graphical representations and diverse individual perspective of the respondents.

3.6 SAMPLING PROCESS

Stratified sampling technique was used to select the units for the study. Where the target population mainly comprises of Sales representative of pharmaceutical companies, industry personnel's, physicians and normal civilians. All of them where stratified into smaller groups known as strata and then each subgroup is randomly sampled using another probability sampling method.

3.7 SOURCES OF DATA

1. Primary source of data: Primary source of data is majorly collected by Google questionnaires'. It also includes, telephone calls, personal visit up to some possible extent. Where 70 participants were the targeted population of the study.

2. Secondary sources of data: By a review of many research articles, books and journals. Hence secondary data was been collected.

3.8 DATA ANALYSIS AND INTERPRETATIONS

Data analysis and interpretations is a crucial part of the research process, as it helps in understanding the views of the people (Target audience) and analyse them in a proper manner. Here the data is been gathered majorly from Google questionnaire's, but telephonic calls, personal interview were used up to some extent. Firstly, Raw data was cleaned to remove inconsistencies and in regards to data analysis, SPSS Software was been utilized. In this study, Regression analysis, Correlational analysis and comparative analysis techniques as data analysis techniques are been used. Regression analysis was used to correlate between relationship between dependant variable and independent variable like digital marketing strategy and growth of pharmaceutical company and Digital marketing and increase in the sales revenue of the pharmaceutical company. In addition to it, Correlational analysis can be used to determine the magnitude, direction and relation between the 2 or more variables for Eg.. (Digital marketing strategy and better customer engagement, Digital marketing strategy and better brand awareness among people). Comparative analysis involves comparison between the effectiveness and efficiency of digital marketing strategy with that of conventional marketing in terms of ROI (return on investment), customer reach in a company. To accurately draw the comparison between the variables, we adopted tabular presentation and graphical representation.

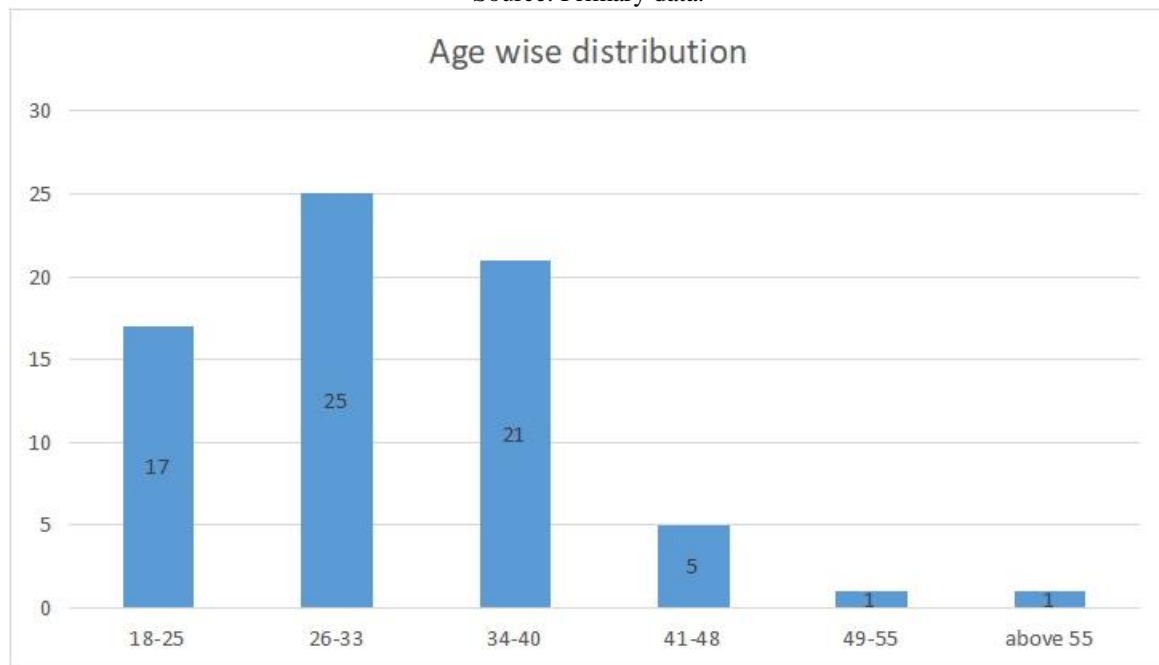
IV. ANALYSIS AND RESULTS

DEMOGRAPHIC ANALYSIS:

Table 1: Age wise distribution

S.No	Age group	Respondents	Percentage to Total
1	18-25	17	24.28%
2	26-33	25	35.7%
3	34-40	21	30.1%
4	41-48	5	7.14%
5	49-55	1	1.4%
6	Above 55	1	1.4%
	Total	70	100

Source: Primary data.

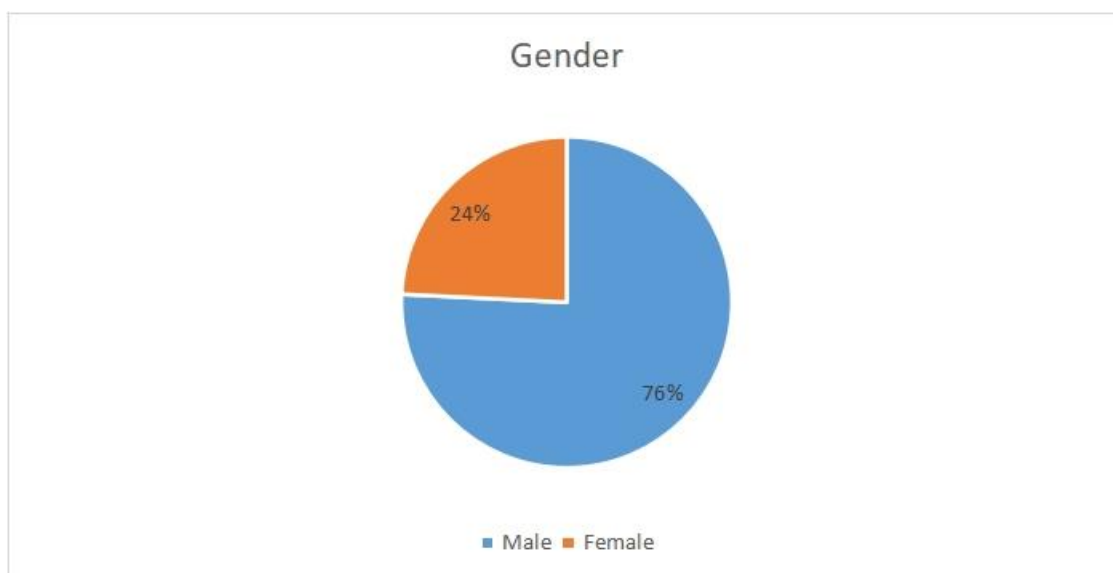


Analysis: It was observed that, Age of Interval (26-33), (34-40), (18-25) have maximum participants as compared to other age intervals in the Survey.

Table 2: Gender-Wise

S. No.	Gender-wise	Respondents	Percentage to Total
1	Male	53	75.7%
2	Female	17	24.2%
	Total	70	100

Source: Primary data.

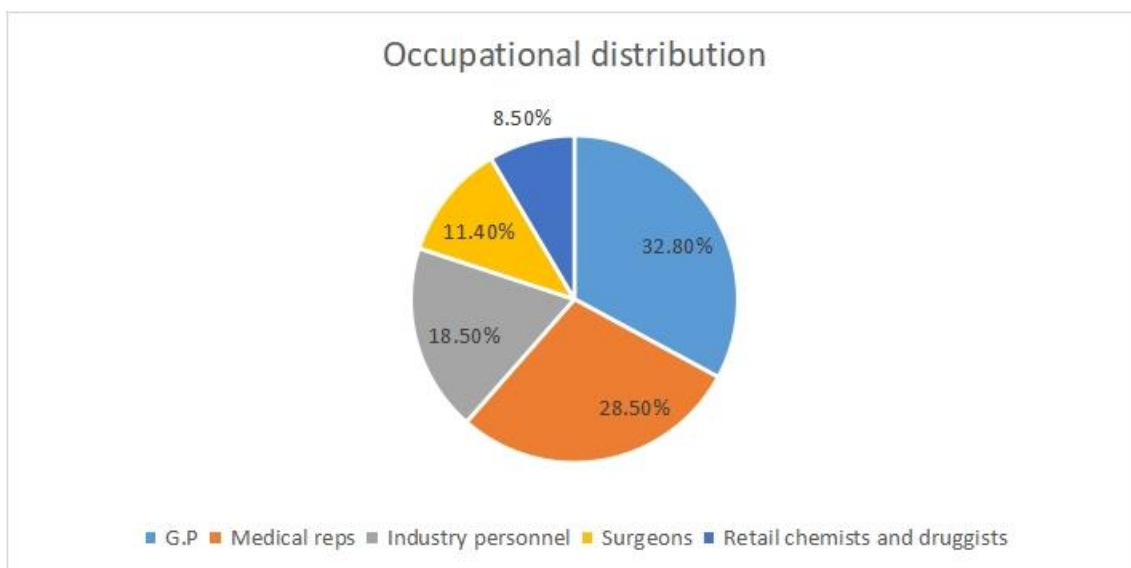


Analysis: It was observed that 75.7% of males were the participants and 24.2 % were female candidates in Survey.

Table 3: Occupational Distribution.

S.No.	Occupation	Respondents	Percentage to Total
1	General physician(G.P)	23	32.8%
2	Medical reps	20	28.5%
3	Industry personnel	13	18.5%
4	Surgeons	8	11.4%
5	Retail chemists and stockists	6	8.5%
	Total	70	100

Source: Primary data

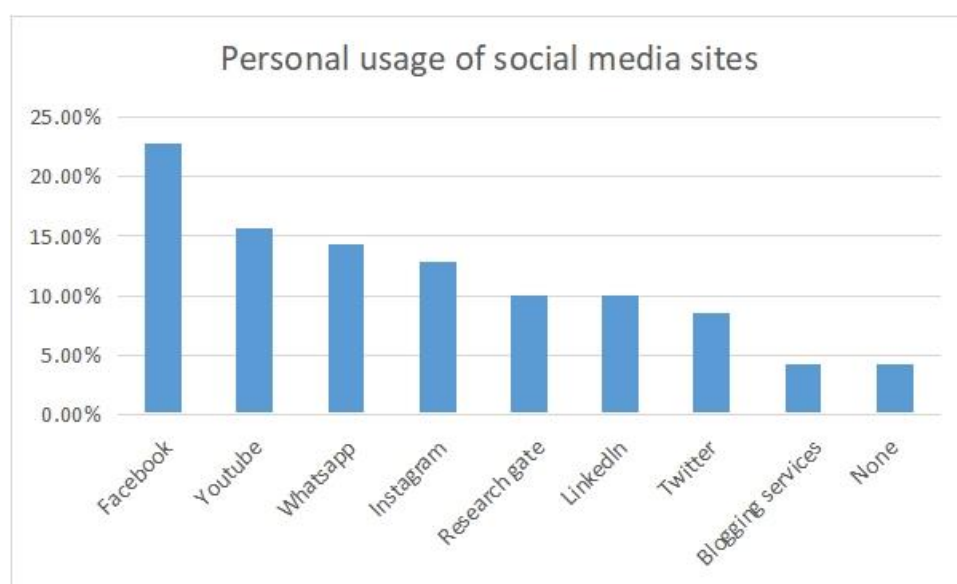


Analysis: It was observed that General Physician (GP), Medical Reps, Industry Personnel were the major participants in the survey as compared to others in the survey.

Table 4: Personal usage of social media sites among targeted audience.

Sl no	Social media sites	Respondents	Percentage to Total
1	Facebook	16	22.8%
2	YouTube	11	15.71%
3	Whatsapp	10	14.28%
4	Instagram	9	12.8%
5	Research gate	7	10%
6	LinkedIn	7	10%
7	Twitter	6	8.5%
8	Blogging services	3	4.2%
9	None	1	4.2%
	Total	70	100

Source: Primary data.

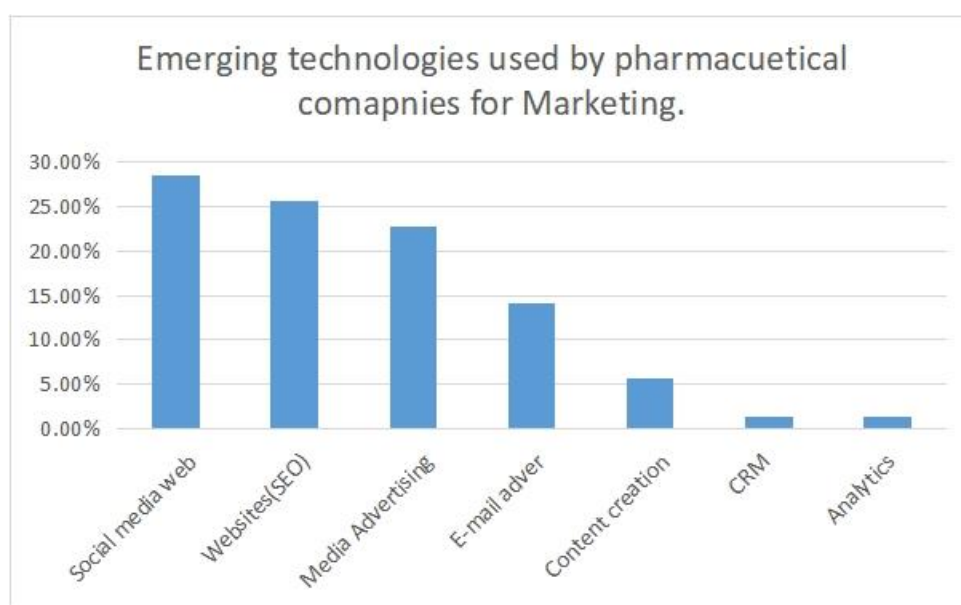


Analysis: It was observed that Facebook, YouTube, Whatsapp were the most popular social media websites among target population. Instagram and LinkedIn are the other popular websites, While Twitter and research gate are catching up in popularity. According to targeted population.

Table no 5: Different emerging technologies used by the pharmaceutical companies for Marketing.

Sl no	Technologies	Respondents	Percentage to Total
1	Social media web.	20	28.5%
2	Websites(SEO)	18	25.7%
3	Media Advertising	16	22.8%
4	E-mail Advertising	10	14.2%
5	Content creation	4	5.7%
6	CRM	1	1.4%
7	Analytics	1	1.32%
	Total	70	100%

Source: Primary data.

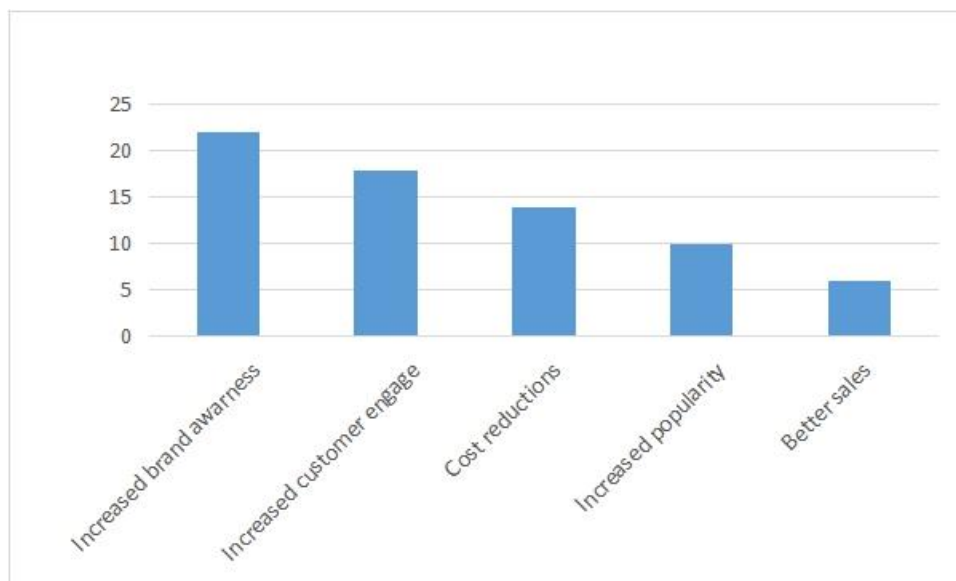


Analysis: It was observed that social media websites, website (search engine optimization), E-mail marketing were the emerging technologies according to target population. In addition to it, content marketing, CRM, analytics are the 2nd line emerging technologies in companies, according to target population.

Table 6: Digital marketing strategy gives a competitive edge to the pharmaceutical companies

Sl no	Particulars	Respondents	Percentage to Total
1	By increasing brand awareness of products.	22	31.4%
2	By increasing customer engagement.	18	25.71%
3	Cost reductions of company	14	20%
4	Increased popularity of company.	10	14.28%
5	Better sales and revenue.	6	8.5%

Source: Primary data.

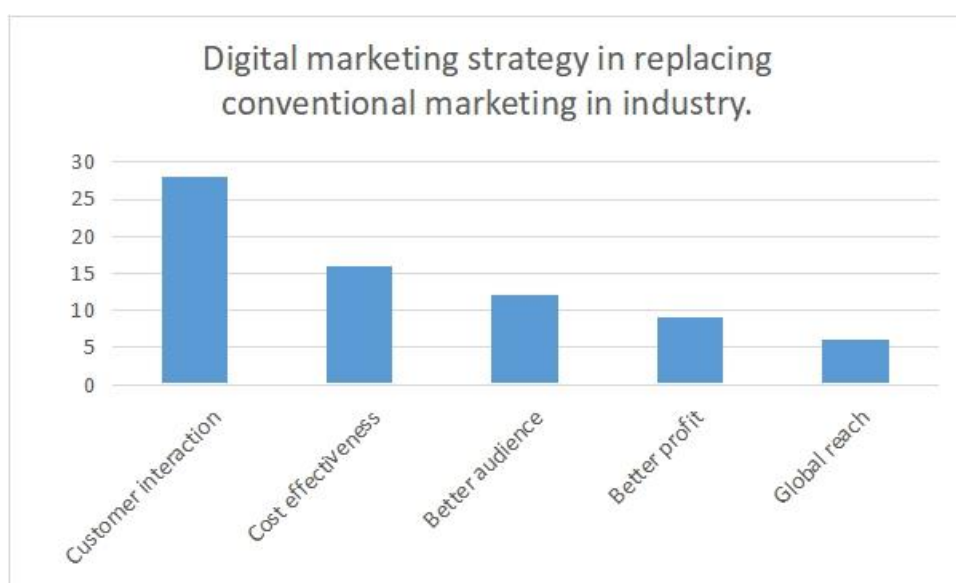


Analysis: It was observed that, majority of the participants believed that digitalmarketing strategies provides a competitive edge to pharma companies, by increasing in the brand awareness of the company products, better customer engagement process and cost reductions as compared to other options available.

Table 7: Digital marketing strategy helps in replacing the conventional marketing practices of the pharmaceutical industry.

S.No	Particulars	Respondents	Percentage to total
1	By better customer interaction and feedback response.	28	40%
2	By enhanced cost effectiveness.	16	22.8%
3	Better audience reach.	12	17.14%
4	Better net profitability.	9	12.8%
5	Global reach.	6	8.57%

Source: Primary data.



Analysis: It was observed that, majority of the participants believed that digital marketing strategy can replace conventional marketing practices, by means of better customer interaction and feedback facility with customers, cost effectiveness approach, better audience reach as compared to other options available.

V. FINDINGS

- The data analysis and results revealed that, majority of the active participants were from the age group of (26-33), (34-40), (18-25) respectively. Hence the data was collected from the young age medical professionals and experienced from young age medical professionals and experienced sales professionals of pharmaceutical industry. Hence it would deliver a matured and practical response in the study, which helps to deliver the accurate results out of the study.
- The data analysis revealed that, majority of the participants were the male candidates, which was 75.7% and 24.2% were the female candidates in survey. This response might be due to the reason of decreased trend and popularity of the female employees in sales profile of pharmaceutical industries and most men's are at employability in sales division of the pharmaceutical company.
- General physicians (GP), medical representative, industry personnel's served to be a major participant in the survey as compared to others. Since the survey mainly focused on understanding the influence of digital marketing in pharmaceutical industry, such data can be accurately answered by medical representative and doctors who play a main role in pharmaceutical industry as compared to others.
- It was observed that, Facebook, YouTube, and Whatsapp were the most popular social media websites among the targeted population. Secondly Instagram and LinkedIn were the other popular websites among the targeted population. Since most common public, use Facebook, YouTube and Whatsapp frequently to update with medical information, medical inputs and updates very frequently as compared to other social media sites.
- According to the results, targeted audience mostly prefer medical websites (WHO), specialized medical apps for both doctor and patients, E-dealing for accessing the medical information and medical inputs. Since such medical websites, apps by the pharma companies is a source of authentic and real medical information. It is a convenient for both patients to early access the medical information easily at low cost and faster results. Hence such responses was recorded by the target audience.
- According to data analysis, It showed that adopting the digital marketing strategy would majorly improve the awareness about the product worldwide, hence by digital media, we can better interact with customer interactions, feedback and answering queries of customer, which will provide the competitive edge to pharma companies, according to target population.
- According to data analysis, It revealed that digital marketing strategy can replace the traditional marketing practices in industry, because digital marketing strategy/tools can provide better interactions with customer, feedback facility(available with use of digital tools), cost effectiveness approach, better audience reach as significant benefits of digital marketing tools over conventional marketing by target audience.
- The results revealed that, majority of the participants are aware of the mobile applications, web conferencing, and customer websites for doctors as digital marketing initiative in the pharmaceutical industry as compared to others. It is because of popularity, better results, easy availability of medical information through mobile applications/apps, customized websites for doctors/patients as compared to other options available.
- It was observed that, mostly 87.14% of the targeted audience believed that, digital marketing strategy is cost effective and economical as compared to traditional marketing practices. It is because, it only requires a onetime investment of buying and installing digital tools in organization. But in long terms it produces a fine results and better revenue for pharmaceutical companies.

VI. CONCLUSION

Today's competitive era, Pharmaceutical companies needs to prioritize and implement digital marketing concept in their business model to remain competitive in the market. In past time periods, Most of the pharmaceutical companies were involved to devote a larger amount of budget to traditional marketing practices on medical representative's and field force trainings. There were lot of demerits associated with the traditional marketing approach like expensive method of marketing, poor results, limited customer reach, laborious work and so on. But recently due to the global pandemic like COVID-19, many several governmental regulations

were imposed which made them to stay in their homes. Hence medical representatives were not able to meet with the doctors/physicians/chemists and perform the product detailing to them. Hence traditional marketing technique was not applicable in such cases. Hence this situation was one of the leading reason for the emergence of digital marketing strategy in pharmaceutical companies. Cost effectiveness approach, improved revenue for company, better brand awareness, better doctor detailing were the significant benefits of digital marketing strategy.

In accordance with the results of the survey, it reveals that Social media handles like Facebook, Instagram, Twitter, Medical websites(SEO), PPC(pay per click) were the best digital marketing tools which can be implemented in the pharmaceutical industries. E-detailing of medicines to doctors by the medical representatives of pharmaceutical industry serves to be efficient and innovative way of product demonstration and detailing by medical reps towards doctors. Webinars/Webcast's, medical websites, mobile apps, email marketing plays a major role in spreading awareness about digital marketing and have a influence in changing the traditional marketing practices of pharmaceutical companies.

According to the survey, 75.7% believed that digital marketing initiative was at a greater pace during COVID-19 pandemic in pharmaceutical companies. In addition to it, 95.7% agrees that digital marketing strategy has a greater impact on improving the sales performance of pharms companies. 88.5% agreed that digital marketing initiative has a positive impact on business model of pharmaceutical companies. The bigger pharmaceutical giants like PFIZER, ABBEIVE, MANKIND PHARMA, ELLY LILLY has developed a fabulous digital marketing system for their organizations. Hence we conclude that, digitalization in marketing will grow exponentially and will slowly replace the traditional marketing practices of pharmaceutical industry.

REFERENCES

- [1]. Wilkes MS, Bell RA, Kravitz RL. Direct-To-Consumer Prescription Drug Advertising: Trends, Impact, And Implications: Aiming drug ads at consumers means big business for drug companies, but its effect on clinical care is not yet known. *Health affairs*. 2000 Mar;19(2):110-28.
- [2]. Bruhn M, Schoenmueller V, Schäfer DB. Are social media replacing traditional media in terms of brand equity creation?. *Management research review*. 2012 Aug 3;35(9):770-90.
- [3]. Prasad VK, Ramamurthy K, Naidu GM. The influence of Internet-marketing integration on marketing competencies and export performance. *Journal of international marketing*. 2001;9(4):82-110.
- [4]. Jawaid M, Ahmed SJ. Pharmaceutical digital marketing and its impact on healthcare physicians of Pakistan: a national survey. *Cureus*. 2018 Jun 12;10(6).
- [5]. Anis MS, Azmi MH. Pharmaceutical digital marketing of non-prescription drugs: a systematic scoping review. *Research Journal of Pharmacy and Technology*. 2022;15(2):941-6.
- [6]. Alyahya M, Dhruvakumar S, Siddegowda SH, Sreeharsha N. Impacts of digital marketing on the pharmacies community in saudiarabia and determining the future model of the industry: A cross-sectional questionnaire-based study. *Indian Journal of Pharmaceutical Education and Research*. 2020 Oct 1;54(4):1193-206.
- [7]. Ben Said Y, Bragazzi NL, Pyatigorskaya NV. Prevalence and perceived effectiveness of pharmaceutical digital marketing among community pharmacies in Saudi Arabia: a cross-sectional questionnaire-based survey. *Pharmacy*. 2020 Jan 15;8(1):9.
- [8]. Bharskar GR, Siddheshwar S. Digital Marketing In Pharmaceutical Sector. *International Journal of Pharmaceutical Science and Health Care*. 2020;2(10):1-7.
- [9]. Sinha MS, Kesselheim AS, Darrow JJ. Pharmaceutical advertising in medical journals: revisiting a long-standing relationship. *Chest*. 2018 Jan 1;153(1):9-11.
- [10]. Yang YT, Chen B. Legal considerations for social media marketing by pharmaceutical industry. *Food and Drug Law Journal*. 2014 Jan 1;69(1):39-52.