

# Medical Representatives: Making the Digital Leap

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**Abstract :** For a pharmaceutical company, the cost of pushing a pill starts to hit the breakeven point when the name appears on prescription pads and the strip reaches the patient's hands. To track the company's growth, studying the physician's perception is a preemptory need. In India, drug promotion tools used by pharmaceutical companies can be categorised as medical representatives (MR), samples, advertisements (in journals), conducting conferences and offering incentives. The medical representative currently stands at the top, incorporating the rest of the tools into his approach. However, in the last few years this model has been pronounced antiquated. A spirited debate has begun about the need to realign the sales force to meet the changing realities of the healthcare landscape. This review aims to analyse the current as well as the rising methods of sales in the Indian pharmaceutical industry and aims to cover the finer nuances of the upcoming approaches, the gaps in the system so far and the future of the Pharma sales model. The digital tools have made their way into every side of this industry and are substantiated in terms of delivering stellar results. With reference to pharma, the transition began when pamphlets and brochures turned to emails and PDFs. It also highlights how the 2020 COVID-19 pandemic accentuated this shift as the field force was temporarily eliminated and on-screen means were the only way to survive.

**Keywords - Pharmaceutical sales representative, e-detailing, digital marketing, advertisements**

## I. INTRODUCTION

The Indian pharmaceutical industry has gained market share to become the world's third largest supplier of pharmaceutical drugs by volume. It is especially interesting due to its substantial impact on economic growth and public health globally. The industry has won the designation of 'pharmacy of the developing world' because of its crucial role in providing economical generic drugs to the world (Médecins Sans Frontières [MSF], 2007). This can be attributed to the following key strengths: (1) High self-reliance, considering most formulations are made completely in India, with certain level of dependence on China for API (2) Inexpensive production when compared to other countries (3) Growing strong scientific manpower (4) Government incentives to export drugs (5) Large market and producer of generic drugs (6) A relatively diverse population to conduct clinical trials and contract research. Globally, in terms of value of production, India ranks 4th in generic production and 17th in exports. Indian dosage forms and bulk drugs are exported to more than 200 countries. Highly regulated markets like the USA, West Europe, Japan and Australia are just a few countries that import Indian pharmaceuticals. India has the largest number of US-FDA compliant plants outside of the USA along with 1400 WHO-GMP approved plants, 253 European Directorate of Quality Medicines (EDQM) approved plants (Government of India [GOI], 2017).

It is no secret that digitalisation is taking over every aspect of our lives. Marketers are also competing to capitalise on the new channel of communication to reach their customers. Beyond the use of digital media instead of print media, it is also changing the way companies market products to their current and potential consumers. Digitalisation changes the way consumers come across and interact with their products. The dominating principles of management and strategy which were dominant in the industry have to change with the times. The pharmaceutical industry in India has been slower to adopt digitalisation as compared to other industries, due to uncertainty as well as lack of clear regulation (Parekh et al., 2016). As Kumar (2019) states, the traditional sales model requires a paradigm shift in India. A greater number of technologically literate physicians are using the internet as their source of medical information. The industry due to high competition and rippling effects on patient care and health has low supplier power, with most of the power lying with governments, physicians and the consumers. Newer players in the market could leverage the digital platform to gain digital share of the market. In this article, we review the rise and scope of digital marketing within the context of the Indian pharmaceutical market.

Significant scientific and technological development, combined with sociodemographic shifts, growing demand for drugs alongside the COVID-19 pandemic have put the pharmaceutical industry in the spotlight. Major improvements in treatment and care for patients should be expected as several countries open their economies to trade (PricewaterhouseCoopers [PWC], 2012). Many predictions have been altered due to the drastic changes in business, operations and marketing due to the pandemic situation. Businesses are forced to adapt in these uncertain circumstances. The predominant sales strategy i.e. face to face meetings with physicians and other stakeholders would be a risky proposition. Medical Representatives (MRs) are an integral part of the current sales strategy and execute a number of techniques to win prescriptions from doctors. These prescriptions convert into sales, which is pivotal in an industry with relatively low differentiation between products. GlaxoSmithKline (GSK), a British company, was one of the first to introduce their sales force back into the field in India. With utmost precautions taken, PPE provided and only working in green zones, about 15-20% of the sales staff would have been on ground. The funds unused during the lockdown would be diverted to reach their sales targets via a digital route, according to a GSK official (Das, 2020). Certain companies have begun hosting zoom meetings to facilitate E-Detailing. The Indian Pharma Industry has seen significant changes in 2020 (Jayakumar, 2020), however, this article will be exploring the changes in sales strategy that are likely to occur, catalysed by the COVID-19 pandemic. An industry reluctantly moving toward digital marketing will now be forced to adopt newer strategies. As the nature of sales strategy changes so must the sales force, the job of a MR might change completely. As the race to keep up goes on, it is crucial that the expertise of MRs is not wasted, the modern MR must take the digital leap to evolve with the industry.

## II. THE CHANGING RELATIONSHIP OF PHYSICIANS AND MRS

The classic pharma sales model is a beautiful barter. This starts with a MR carefully influencing a physician, studying his mind, taste, preference, forming statements and swiftly incorporating the target product around it. An adept blend of conversations, incentives and persuading skills come into play here, which both the receiver (physician) and the provider (MR) are consciously aware of. A successful detailing (defined above) would mean gracefully modifying physician's prescribing habit, instilling a good image in their mind and target product reaching each patient who came in through their doors. The rep-physician relationship in fact determines the drug's market share. As of 2016 about 43% non surgical physicians ranked MRs among their top 3 information sources (Krendyukov & Nassy, 2020).

A question often arises as to why this successful model is on the verge of failing. When it comes to physician interaction, it is known that inaccurate but selective information is effective for drug promotion (Rane, 1998). About 20,000 pharmaceutical companies in India compete for a share of the Rs 1,300 crore market in annual sales, in what can be called, a poorly regulated environment (Pearl & Stecklow, 2001). Today, competing in a 1300 crore market with roughly 3 minutes in hand, enormous pressure from the company, outrageous targets and the gross absence of code of ethical practices on pharmaceutical marketing has swallowed MRs into a vicious cycle. To achieve these unreasonable sales, they adopted newer methods, diaries for doctors changed to iPads and gift hampers changed to paid vacations. A study conducted by Workneh et al. (2016) said 50% of doctors felt that their prescribing behaviour was based on the effort put in by medical representatives but they also learnt that most medical representatives failed to provide adequate and accurate information regarding their products and had a negative attitude towards their competitors' products. This behaviour has led to physicians castigating newer MRs. Short, accurate and efficient data backed up with solid clinical trials is in higher demand now. The doctor no longer just relies on the MR to acquire necessary material. Pharma consultants state that pandemic has shifted engagement with doctors to digital detailing mode, a change much awaited and needed. Leading pharmaceutical company's MRs leveraged on digital tools and reached out to doctors, and have been fairly successful upto now.

## III. THE DETAILING PROCESS

'Detailing' in the pharmaceutical industry is described as the informational and persuasive activities to provide the physicians and other stakeholders (Chemists, Stockists, Distributors) the pharmaceutical product message. The purpose being, to affect prescribing, supplying, purchasing or the use of pharmaceutical products. In practice, the real detailing only takes a few minutes but the planning and waiting period is very lengthy for the pharmaceutical representative (Banerjee & Dash, 2011). The medical representatives are the primary sales force in the Indian pharmaceutical industry, responsible for drug promotional practices and inducing a "push force" in the market for their product. The process is much more tedious since the consumer in this case is not the final end-user but actually the doctor that writes the prescription. Hence, the MR must have accurate, up-to-date information about drugs, understands the scientific evidence of effectiveness of their drug, the evidence-supporting research trials and is able to consult and discuss the related information with a practitioner (Molloy et al., 2002). Additionally, what can give an MR a good advantage over others is good communication since knowledge alone will not generate prescriptions. One must have the ability to interpret the wishes of the physicians, figure out the unmet requirements of the patients, raise questions about the treatment that the client likes and explain the mitigating characteristics of the goods that the MR wants to encourage in comparison to the goods of the rivals, listening skills, addressing complaints from the clients, building partnerships with the physicians, selling benefits (Sharma & Negi, 2020).

The MRs also perform the Retail Counter Prescription Audit (RCPA) prior to meeting with physicians as a background check for the area that they are catering. This helps in the personal selling process as they get a background of the prescription patterns of the area and can strategize accordingly. It is an eight steps process which includes Prospecting, Pre-approach, Approach, Assigning needs, Presentation, Handling objections, Gaining the profit and Follow up (Kumar & Panigrahi, 2014).

In light of this, let us analyse the different methods of detailing that have existed from the traditional sales rep to the modern MR.

### A. Traditional Approach

The pharmaceutical market in India changed drastically in the 1970s due to changes in regulation. Prior to the 1970s the industry was dominated by foreign players (Akhtar, 2013). The major change maker was the government allowing the production of patented drugs (Indian Patent Act 1970). Manufacturers could manufacture the final patented API but using a different process of manufacturing i.e. upholding process patent rather than product patent. Second major difference was the introduction of incentives and subsidies for small manufacturing plants to give an impetus to production in India. This caused a boom in the production thereby increasing competition (Gulhati, 2004). Selling and marketing pharmaceuticals is a daunting endeavour due to the lack of possible product differentiation. It is a highly competitive market with multiple "me-too" drugs. Clear advantages lie with the pre-established known brands, since they have already garnered trust and favour. Every smaller company has to aggressively market their product to gain a market share. Marketing efforts are two fold, competing for shelf space and competing for mind space. These strategies are multi pronged and many strategies are infamous for being unethical.

A survey conducted by Krishnaswamy et al. in 1985 found that more than 47% of the drugs sold were without prescription. The study was conducted in two cities in Andhra Pradesh. It was also found that several patients were commonly self prescribing analgesic and anti infective drugs; both OTC and scheduled drugs were equally available and easy to procure. The drug class most commonly prescribed by doctors, happened to be OTC drugs i.e. Vitamin supplements and nutritional products. For a chemist, it makes less financial sense to keep multiple brands of the same generic drug. Unsold stock is wasted, hence fewer brands claim superiority on the shelves. Chemists are likely to keep brands that provide them a financial advantage (more so for OTC drugs), or a brand that is demanded for by the customers (more common for prescription drugs). In a market with a large population self medicating, the chemist and the end consumer played a large role in creating the demand for drugs.

Hence several strategies were developed by pharma players to gain shelf space:

1. Providing incentives for buying drugs in bulk quantities. For example, a company may provide a larger margin, discount or give extra strips for free to the chemist if a certain quantity is sold.
2. Making deals with distributors and stockists incentivising them to stock more of their product.
3. Creating similar arrangements with in-house hospital pharmacies

#### 4. Improving their distribution channels to maximise rural sales.

Meanwhile to boost prescription based sales, MRs were introduced. Bhatt (1993) estimated a sales force of 40,000 medical reps in India in 1993. Numbers have been increasing ever since. A large portion of promotional expenses were allocated towards MRs (about 60%) (Gadre & Diwate, 2019). This is because Company Sales Force and CME (Continuing Medical Education) are both considered to be some of the most effective tools to drive prescription based sales (Dhanawade, 2009). Traditionally, doctors have been depending on MRs to provide them information about new drugs and formulations. MRs with good knowledge of the industry and drugs traditionally build trust with doctors to develop a good relationship. In order to win favour of the doctors many pharmaceutical companies have tried to gain a competitive edge by introducing gifts, deals, brand reminders, free samples, leave behind literature (LBL), product monographs, scientific journals, sponsoring doctors for international and national conferences Jain (2017). In fact Lal (2001) has systematically enlisted the marketing efforts by the pharma industry, which are often executed by medical representatives: drug advertisements in scientific journals, the provision of gifts and samples, drug box samples, brand reminders, direct-to-consumer advertising for OTC products, journals, telemarketing, conference planning, symposiums and science seminars, funding of medical education and training.

#### **B. Current Mainstream Approach**

While traditional marketing methods were continued through the years, the number of pharma companies and generic manufacturing increased, so did the competition. Approximately 60,000–70,000 sales representatives (MRs) worked in India in 2005, the Doctor to MR ratio being 10:1, this ratio has increased to an estimated 31-37:1 in 2020 (McKinsey, 2009). A lot of the MRs however were situated in the urban areas. A shift was seen, as the MRs were expected to be more aggressive in their sales strategies. Instead of focusing purely on a scientific exchange and the drug, MRs were to push their product with added focus on providing gifts, incentives and samples to gain favour. With time gifting has become more and more commonplace in the industry. Doctors are given more or less incentive according to the amount of sales driven by them. Hence, doctors who don't provide returns are removed from the "pampering" of the company. The incentives provided may be in terms of cash or kind. Gifts for example could be stationery, small keepsakes, calendars, journal prints, prescription pads which act as brand reminders. However, the brand reminders get supplemented by other gifts of higher value, from jewellery to appliances to free trips (Lexchin, 2020). Certain doctors mentioned that gifts do not affect their judgement and that these act as compensation for their time. CME is also used as a tool to sponsor conferences where companies pay for doctors and their accommodation, food, travel, etc lavishly. The doctors that are "trend setters" or senior level doctors tend to receive greater benefits (Gadre & Diwate, 2019). Other non-digital communication efforts also include organising and sponsoring symposiums, workshops, round tables, direct post mailing and exhibition stands (Krendyukov, 2020). Handa et al. (2013) concluded that educational programs had the largest impact on prescriptions by doctors. They hence suggested an increased focus on educational and drug based communication.

Health camps have been described as a "unique yet common indian" phenomenon by Joel Lexchin in his paper. These health camps fund the screening of multiple patients free of charge; acting as CSR efforts. These health camps include doctors volunteering their time to examine patients that are less likely to receive quality medical care. Meanwhile, pharmaceutical companies can capitalise on this opportunity by providing the patients their own products in the health camps, companies can effectively influence prescription and enhance their market penetration and market share (Lexchin, 2020). Another important method of marketing was bringing in Key Opinion Leaders (KOLs) to vouch for their products and to communicate key information to masses of doctors. KOLs tend to be influential doctors and doctors with considerable experience in the field. Bhangale (2008)

Digital methods of communication have also gained a traction in the Industry in recent history, the specifics of which will be discussed further ahead.

#### **IV. RISE OF DIGITAL METHODS OF PHARMA SELLING**

With the world coming closer and technological advancements increasing everyday, there are big changes happening in the market, whether we like it or not. Especially with respect to sales and marketing, the emerging digital era has rendered several jobs irrelevant and repetitive. The work of medical representatives is one such job aspect that is highlighted in the pharmaceutical industry along with their characteristic tag of in person doctor visits, follow ups and aiding the selling aspect with their charm and gifts.

Thus in spite of what was considered a key aspect earlier, in today's day and age, the hard fact is that doctors do not want to meet the Medical representatives anymore, majority believing that these meets add no value to their practice, 17 out of every 25 doctors, do not want to meet the MR more than once a month (Digital Saline, 2020).

With more and more data suggesting that the relationship has evolved and developed, and with medical ads, digital marketing for doctors, and digital marketing for hospitals at the forefront of science and technological advancement, pharmaceutical companies must indoctrinate a shift in how MRs engage with the medical community. A comprehensive digital media strategy that also integrates with their field-force operations must be established by pharmaceutical companies.

Keeping the following three themes in mind: (1) For pharmaceutical firms, major shifts in the common positions and dynamics of healthcare stakeholders have fundamental consequences,

(2) It is time to reimagine them as businesses with solutions, not just for sales and assets and lastly (3) the technology is ready and advanced, we must just harness it in order to attain success; the following integrated processes were introduced, which is referred to as E-detailing (Champagne et al., 2015). E-detailing (electronic visits, e-visits) is a term that describes the use of digitised technology for pharmaceutical product promotional strategies and marketing, primarily via the Internet. E-detailing outlines the use of internet age resources for promotional events, supplying consumers (health practitioners, medical staff, and patients) with data for pharmaceutical products. It entails the use of electronic networks to communicate with customers (Balkanski & Getov, 2019).

The main types of e-detailing that are effectively implemented so far consist of:

1. Video visits, where specialists can receive information about different products by scheduling meetings at their convenience and allowing the requisite data to be visualised and displayed easily and conveniently.
2. Telephone communication along with joint internet browsing (co-browsing), focusing on real time communication with exact information to be conveyed as and when asked

3. Scripted detailing, involves medical professionals having access to a mix of online presentations and training for a particular product and highlights the use of pre-designed texts.
4. Interactive voice reply, which is a subsection of scripted detailing based on interaction through voice commands, and conversation via a telephone.
5. Emailing, These are customised electronic communications made to meet the needs of the consumer that can be used as a separate marketing method and strategy for product presentations.

Online marketing and educational tools, including webinars, training videos, blogs and emails for social media marketing management are additional methods for digital approaches other than e-detailing. This makes it possible for practitioners and resources to connect further in a way that paper resources and conversations do not. Depending on the areas of interest or specialism of an HCP, these techniques can also be customized to allow physicians to access information more easily (Balfour, 2020).

Furthermore, there are four areas of digital opportunities that successful pharmaceutical companies are focusing and building on, to develop their digital arm:

- *Personalized care:* Focusing on specific medication, and specialised sensors and treatment, the data analysed with respect to it will highlight every aspect of patient care with greater precision. One such product is WellDoc launched by BlueSmart, an evidence-based model of treatment delivering a set of solutions targeted to particular chronic conditions.
- *Fuller engagement:* With digital channels being popularised upto an 82% in 2018, (Indegene, 2019) and preferred by both patients and physicians alike, it's important for pharma companies to keep up with the hybrid approach of digital engagement. Virtual-care expert applications already exist and are increasing in number and engagement as the digital age progresses.
- *Data-driven insight:* Advanced analytics will be used by marketing and sales forces to understand prescribing behaviour and prospective patient profiles, facilitating more effective selection of providers and increasing the number of prescriptions filled.
- *Real-time responsiveness:* Automated processes such as cloud and mobile technologies, sensors and business intelligence of the next generation would generate a new wave of business analytics to increase cost, agility and value (Champagne et al., 2015).

## V. CONSIDERATIONS FOR THE FUTURE

Below discussed topics are the external factors that will need to be considered when implementing the digital strategies for drug promotion.

### A. Competition (Indian businesses vs MNCs) to acquire digital space

Health care is being changed by the digital revolution, and most people agree that the point is now within reach. Digital transformation has definitely shifted structures of leadership and thought. There is an increased pace of innovative projects and modern business models developing. How to remain ahead of this is the issue that emerges for the pharmaceutical industry. Pharmaceutical companies should radically alter conventional approaches, societies, and skills in order to achieve the necessary objectives. Also in the early stages, digitization in the healthcare sector is having a real effect on how not only doctors but also patients handle the wellbeing of those patients and how pharmaceutical firms need to do business. It is important to develop imaginative business models, invest in new capabilities, and change organizational cultures (Champagne et al., 2015).

The technology cycles of today are becoming shorter and the cost of experimentation is becoming cheaper. The change in actions and processes in the pharmaceutical industry is also seen. In the private and public sectors of pharmaceuticals, most of the sectors have already emerged in a new era of technological advancements. The use of digital network technology has become more user friendly for patients around the world over the course of a decade of significant digitization of pharma firms, digital technologies, including dynamic and sensitive sectors such as healthcare, prominent websites like ZocDoc, DrEd and PatientsLikeMe in the United States, have paved the way for Indian websites such as Netmeds, PharmEasy, Medlife, 1 mg, and also patient-centered apps such as Apollo, Practo are capturing a larger share of the Indian markets. The experts think that the time for healthcare systems, payors, and providers is ripe (Biesdorf & Niedermann, 2014).

In the context of Indian pharma companies, these strategies might help Indians to operate flexibly in the domestic as well as international markets. They assist with marketing outside the country with a strong brand image. The new software tools make a great contribution to the development of organizations which, in turn, contribute to the economic growth of the nation.

The future of the Pharmaceutical industry has never looked better due to technological advancements and socio-economic changes and in the coming decade capitalizing on these trends will entail making crucial decisions first (PWC, 2012).

Priti Mohile, Co-Founder and Managing Director, MediaMedic Communications notes that digital platforms offer some unique opportunities to break the clutter, reach in different ways, and tailor the service to the patients and consumers. Utilizing these in the right manner by integrating them correctly with offline promotional activities can ensure larger success. The pharmaceutical marketing personnel must be ready to take on this task to fulfill the objective of creating loyal customers and to serve them well in order to retain their loyalty. Digital marketing will reduce the expenditure on promotional activities offline. This will help cut down the cost of drugs. Thus, digital technology platforms can offer pharma companies to reach healthcare professionals much more efficiently than doing it simply through large sales forces. However, it seems that Indian pharma companies are not yet tech-savvy with their counterparts and restricting themselves from adopting digital platforms on a mass scale (Kwak & Chang, 2016).

But there are few exceptions, as Indian pharmaceutical companies have already begun to move in the direction of new technologies, as recent launches have shown. Recently, a mobile app called RespiTrack has been released by Sun Pharma for patient asthma awareness and to ensure they adhere to the drug dosage regimen. As a forum for integrating scientific innovations that can be replicated across the globe, Abbott Healthcare visualises India. For vertigo treatments, Information Genie-a heart, and liver application, they launched multiple devices. Much of this has grown to communicate with doctors and patients alike on augmented and virtual reality. Also in responding to clients, Pfizer is proactive. YouTube, Facebook, and Twitter are commonly used to connect with customers. Among the first businesses to launch a channel on YouTube were Johnson and Johnson. The Specials Lab and Quantum Pharmaceuticals offer online ordering of special drugs that facilitate e-commerce and digital marketing (Lakshmi & Patel, 2020).

The \$17 billion Indian pharmaceutical industry is sweeping through a modern digital revolution, and businesses are scrapping traditional modes of marketing for new technologies. The marketing expenditure of the pharmaceutical industry across digital media is projected to rocket up nearly 50 percent to cross Rs 220 crore over the next two years. E-commerce and social media are set to play a larger role in this advancement. Gaurav Kapoor, executive vice president of Indegene, quotes that this will help India catch up with peers from tech-savvy Asian countries such as China, whereby 2018 almost half of the companies are expected to devote more than a fifth of their marketing budget to digital marketing. Indegene Life System is the world's leading provider of clinical, marketing, and commercial solutions and has skillfully explored and executed a multitude of options and recognises the power of social media marketing in the healthcare industry (Agrawal & Kaur, 2015).

As new launches show, pharmaceutical companies in India have only recently begun transitioning to new technologies. For example, patient knowledge of asthma and to ensure their compliance to the drug dosage regimen, Sun Pharma's RespiTrack software. GlaxoSmithKline asserts that more and more businesses will have to upgrade their social media skills because there will be a significant portion of their consumer in this digital space. The company's managing director for India, Annaswamy Vaidheeshh, said that a minimum of 20%-30% of GSK's own customers are predominantly in the digital world (Mishra, 2016).

When it comes to the involvement of social media, it is not meant to be a platform for sales reps to shout and pound the drum aggressively to advertise their products, but rather to engage and connect at an individual level with the consumer and to effectively treat patients. It is more about delivering dedicated and superior products and services to customers. Sanofi has used Facebook and Twitter presence to build a network of 4000 diabetic patients, which is an example of effective digital marketing (Express Pharma Archive, 2015). According to Ziegler (2004) To make marketing creative, pharmaceutical businesses should utilize social media for brand monitoring and receive useful feedback from the customers. Thus, pharmaceutical firms are urged to adopt social media for improved patient relationships and are expected to be innovative in marketing (Liu, 2012).

It is difficult to rely on ads alone in the pharmaceutical industry at times, but W.H.O hasn't discussed any problems associated with advertising seen in social media. Mr. Prerak Hora, Nishith Desai Associates' Associate, TMT Law Practice, said that "social network content is predominantly in the form of user-generated content." Social media algorithms work to provide patients with the most searched and shared content. The optimization of the search engine also speeds up the advertising and products. Hence It is also very important to generate the correct information on behalf of patients about their signs and symptoms, conditions, contraindications, adverse effects, preferred brand name, etc. There is an ever-expanding digital space in the 21st century but who will have the major influence and ability to thrive in this digital world depends on their creative digital marketing skills.

The Indian firms and MNCs are almost parallel but the MNCs have an infrastructural and technological edge in the pharmaceutical industry (Roychowdhury, 2014).

### ***B. Regulation of promotion in India***

The marketing of medicines by the pharmaceutical industry is designed to provide the medical community with medical knowledge and understanding of new drugs. Many agencies have developed codes and guidelines for such promotional activities. Without exception, both of these codes forbid cash offers and other rewards for the medical profession as part of the marketing of medicines. Monitoring the pharmaceutical industry is exceptionally difficult since it is a multi-layered organization. Profits alone should not be permitted to push the industry. The government must ensure that the companies maintain the requirements of quality, safety, integrity and other parameters. The pharmaceutical company must make sure that the drug is inexpensive, safe and available without losing its performance. In India, drug promotion is governed by a combination of government regulations and voluntary standards, a government agency governing the healthcare industry pertaining to the pharmacy sector. The laws include the:

- Drugs and Cosmetics Act (DCA 1940)
- Drugs and Cosmetics Rules (DCR 1945)
- Drugs and Magic Remedies (Objectionable Advertisements) Act (DMRA 1954)
- Drugs and Magic Remedies Rules (DMRR 1955).

When it comes to Direct To Consumer (DTC) selling, the DCA 1940 and DMR 1954 come into force. Until 2015, except for the content which appeared on the product label, the DCA and DCR did not control DTC ads. The DCR now bans any form of advertising by the producers of medicinal products specified in Schedules H, H1 and X of the DCR. Ladani (2018) believes it is amply evident from the terminology used to ban DTC ads that 'public interest' is no longer a cushion to sell therapies. Further, that the DCR does not shed any light on the following main elements of DTC advertising: the scope of the word 'advertisement,' the distribution of information and recognition of information such as the outcomes of successful clinical trials among patients as an advertisement, consumer testimonials as an advertisement and the appearance of data and testimonials on the pharmaceutical company's worldwide website as an advertiser. The DMRA and DMRR, unlike the DCA and DCR, apply to all individuals and not just manufacturers of the medicines. It identifies those illnesses and disorders for which the diagnosis, cure, therapy, prevention and reduction can not be made public by a drug or medical system. Some of the diseases and disorders mentioned in DMRA and DMRR are loosely defined and may be misinterpreted by the regulator. These are the actual laws in place that must be followed to avoid prosecution but they are believed to be out of date and not in sync with the advancements in science and technology. Legally speaking, Venkat (2020) says that 'advertising' under the DMRA does not address any content made on the internet. Interestingly, one of the features of pharmaceutical regulations in India is that the regulations on pharmaceuticals and the Internet or general awareness of electronic documents had not been linked until recently. On a side note, one of the key barriers to the bringing up of e-pharmacies in India was the lack of considering remotely transmitted prescriptions in statute and the fixation of authorities over the use of physical prescriptions.

Ladani (2018) also states that the nature of the 2012 voluntary Code of Pharmaceutical Practices developed by the Organisation of Pharmaceutical Producers of India (OPPI) seems to be keeping with time. It included more forward-looking rules, such as a prohibition on the usage of advertising that could cause anxiety or discomfort in the popular consciousness (e.g. a person can suffer from illness because of not taking a product), a prohibition on the claim that a medication is prescribed from health practitioners, a prohibition on providing benefits or other advantages that contribute to excessive use of the substance, compulsory usage of alerts such as "use only as directed," etc. It is based on the International Federation of Pharmaceutical Manufacturers and Associations (IFPMA) code and the OPPI code reflects some of its major vulnerabilities as well. One of them being that if poor national regulatory frameworks encourage statements based on bogus evidence or do not need comprehensive safety records and as far as the Code is concerned, organisations are not responsible for providing this level of information. Moreover it undermines the position of sales

teams and any concerns about potential infringements of the OPPI code is dealt with in a similar manner as the administration of the IFPMA code, solely by people inside the sector and penalties are normally mild, usually consisting of a request for the organization to avoid the offensive activity and to withdraw (Lexchin, 2020).

In addition, in the context of direct to physician (DTP) approach to drug promotion, the voluntary Uniform Code of Pharmaceuticals Marketing Practices (UCPMP) written by the Department of Pharmaceuticals (DoP) came into effect in January 2015 (Moneycontrol.com, 2011; EP Bureau, 2015). It addresses services given by pharmaceutical firms to physicians, such as presents, sponsorships for conventions, accommodation and cash or money awards. It also limits pharmaceutical firms from handing out free samples of medications and advertising content, such as mailing papers. Additionally “where there is any item missing, the code of MCI (Medical Council of India) as per Indian Medical Council (Professional, Conduct, Etiquette and Ethics) Regulation, 2002 as amended from time to time, will prevail” though the MCI has now been dissolved and superseded by the National Medical Commission (NMC) (Press Trust of India [PTI] 2020) which will presumably continue this with the Ethics and Medical Registration Board constituted under it. The UCPMP guidelines are yet to be made mandatory and there are varying opinions on whether they should be. Malini Aisola of the All India Drug Action Network said that “in 2017, the DoP tried to bring in a legally enforceable order to regulate unethical practices. The draft order was turned down by the law ministry for not being legally sound under the Essential Commodities Act. Since then, DoP has not made any further attempt to develop a legally binding instrument, presumably buckling to industry pressure,” as they had submitted several cases of violation of the same code to the DoP. Legalising these guidelines would involve a massive change in mindset since any violation can be detrimental to the company yet there are many experts demanding that the code be made mandatory for a more transparent practice of the trade. However, in a recent article by Nagarajan (2020) it seems that the Government of India is showing no signs of making it mandatory anytime soon. Aisola also stated that “The icing on the cake is the government’s reply in Parliament stating that it has no plans to make the UCPMP mandatory. We have been pressing for a legal instrument to replace the voluntary code and submitted evidence of unethical practices. Yet, DoP has not held a single consultation with civil society on this in the last two years.” These indications suggest that the Government is still contemplating on how to deal with the unethical practices that are prevalent in the industry (Gadre & Diwate, 2019).

In conjunction, the self-regulatory Code from the Advertising Standards Council of India (ASCI) for broadcasting and the Consumer Protection Act of 1986, the Monopolies and Restrictive Trade Practices Act of 1969 relate peripherally to pharmaceutical promotion.

### ***C. Dilemmas and discussions***

In Turkey, a study conducted in 2012 reported that pharmaceutical companies relied on building personal relationships, exerting a subtle influence, and creating a sense of indebtedness to persuade physicians (Civaner, 2012). Most pharma giants as well as mid-sized companies adhere to extravagant gifts, arranging trips with family, passes and memberships for social events to doctors as a part of marketing practise. If the Rep-Physician relationship is terminated, this “norm of reciprocity” will cease to exist. The pharmaceutical companies will no longer be able to rely on personal relationships their MRs form with the doctors, a factor responsible for a chunk of their sales. Katz et al. (2010) remark that food, flattery, and friendship are powerful tools of persuasion for years now, more so when they are combined. An alternative would be required when one plans on removing these factors. To influence older, mid-career physicians who are neither fresh out of the university and familiar with digital tools, nor have the time to learn it is quite a challenge. The in-person sales strategies they are familiar with are built on the foundation of incentives, mutual trust, and loyalty. This is something we are uncertain of achieving when we eliminate human involvement entirely.

In his paper Prounis (2003) elaborated on the connection between doctors and the medical representatives. The symbiotic tie up between pharmaceutical companies and doctors will encounter changes in the coming years. If the gloomy outlook towards MRs' is not dealt with, doctors and even regulator bodies are likely to further curb or cease this interaction. But this is easier said than done, these relationships, even if with tension cannot be simply washed away in one-go. One may suggest reducing the limit to the freedom of commercial speech or what can be called as regulating the incentives, but whether or not this will work is still unclear. Downplaying the side effects and exaggerating the benefits, even though morally incorrect, is usually perceived as harmless and is now an age-old practice, expected by physicians. In fact, they are seen focusing more on the benefits and conveying the same to patients. In addition to this, linking artificial intelligence to pharma sales, looks like the near future, the outcome of which, however, may drastically vary. Pharma companies are apprised of the disruptive potential but are still experimenting with a variety of digital initiatives. Many find it hard to determine what initiatives to scale up and in what proportion. Keeping in mind the ambiguous regulations on advertisements and promotional materials, it’s still a challenge to predict what success will mean five years from now (Champagne et al., 2015).

In the next ten years, businesses will change more than they did in the previous fifty, this particular statement by Bill Gates is coming to life now, more than ever. No matter how much an individual or a company resists change, it is ultimately inevitable and a law of nature for advancement. The question now arises if the shift will occur as a result of clinging to the outdated patterns or will it be a result of conscious effort.

## **VI. CONCLUSION: REBUILDING PHARMA MARKETING IN INDIA**

In a recent webinar, Mahesh Doshi (President, IDMA) stated: “In the new normal, pharma company’s leaders, who are best able to diversify product lines, update labeling to regulatory requirements, and get new products to market and patients more quickly than ever before, will lead the race. The current economic disruption will make those leaders who have a strong balance sheet, will be able to manage cash flows in this situation, and then procure supplies at a lower cost” (Sharma, 2020). UCPMP directives are expected to shift the way pharma promotion is handled and new technology can play a vital role as the industry undergoes this transition. Industry specialists must build techniques and tools to help them turn the challenges into opportunities and keep ahead of the competition. Digital marketing, once set up efficiently in the pharmaceutical sector, will aid in reducing marketing costs by increasing engagement via other channels, thus helping companies get an edge. However, much trial and error is still required when it comes to digital pharma marketing in India. Indian Pharma still needs to develop stronger digital analytics, planning, event tracking, and engaging content creation. A large initial investment would be required to set up a department and provide them with all necessary tools and expertise. It would have to start with a self-analysis of its own value chain to find opportunities for partnering together with healthcare professionals if pharma is to build a new sales and promotion framework that is equipped for the future

markets. Pharma would have to complement the medications along with a wide variety of health management services as value addition (PWC, 2008).

However, what would digitalisation mean for a MR? Certainly, it will go beyond the use of tablets and ipads as tools for detailing. As the digital method gains stronghold, would MRs become obsolete? In our opinion they won't, but at the same time, the job description of an MR will change drastically. The old sales model will be phased out. The brand management team, the digital team and the sales team will have to work together to develop strategies that will allow a multi pronged approach. The new MR will be a conduit between companies and physicians, acting as a source of information to both. UCPMP directives are expected to shift the way pharma promotion is handled and new technology can play a vital role as the industry undergoes this transition. Industry specialists should foresee and plan to deal with the changes effectively. They should also build techniques to help them turn the challenges into opportunities and keep ahead of the competition.

In our healthcare system, the conventional one-way relationship will eventually transition to a two-way relationship primarily with the help of digitisation in this field. (Parekh et al., 2016). Especially with a COVID-19 push, pharmaceutical companies are going to be very digitally strong in the future. They will likely enable digitalization and develop robust solutions to build connectivity, data processing systems and collaborative solutions. The digital platform might soon become the foundation of the pharmaceutical industry, provided it establishes and implements proper marketing strategies. Platforms for patients to share experiences, manage diseases and promote wellness might be integrated to provide a holistic brand experience. The key to effective digital marketing, keeping in mind any possible future rules and regulations is to ensure that the marketing efforts are designed to sell experiences and engage professionals and patients instead of trying to sell their products directly. Digital marketing is first and foremost a tool to aid brand building and product positioning.

Sanjay Bhatia (Partner, NextPlan) suggested that in a digital medium, companies will be successfully able to cater their content according to the needs and likes of physicians. A very important utility of digital platforms is the large amount of data generated, companies can therefore fine tune what information works and doesn't work for what doctor. This data can be used by the MRs also to form profiles for their doctors, to cater to their specific preferences. Depending on their hobbies and areas of interest, the content may be scientific and factual or personalized and non-scientific content. Tailored and relevant content will be key to active engagement. Furthermore, MRs can also collect data during their face to face meetings to improve the digital experience. Allowing scientific content to reach a digital platform will free up MRs to focus on specific issues, creating a better knowledge base and developing symbiotic relationships with doctors.

A new sales model would: focus on making consultations easier for doctors, clear up doctors' schedules, generate useful relevant content, create a flow of information and data that can be analysed, leverage multiple channels, create upskilled MRs ready for specific strategies and most importantly distribute the sales targets onto the entire team instead of just the MRs. Technology will likely be an aid, rather than competition for the MRs, provided that companies leverage their sales force effectively.

Another advantage of technology in healthcare would be reaping the benefits of Artificial Intelligence (AI) and Machine learning, for predictive models. This technology can be a true ally in the healthcare process. From improved testing protocols and analysis (MRI and CT scan) to forum bots to connect with patients for relevant treatment threads along with reminders for medicine purchase & intake. When it comes to the marketing side Search Marketing and Optimization (automatically tailored messaging based on patient and physician's historical and predicted behavior). AI will help deepen awareness of the demographics, habits, perceptions, ability of HCPs that will lead marketers in segmentation, targeting, reliable and personalised marketing. AI will help advertisers switch from ads with customization to hyper customization. With AI, advertisers will also be more aptly able to approach individual doctors on the basis of geography, patients and prescription actions, personal behaviour, interests and attitude. Many medications have several targets and are delivered through different networks. Beyond standard approaches, AI & deep learning analytics would offer a better view of how multi-indication items are used. Product teams can monitor product success by presenting knowledge, niche, area and source of business to guide their future marketing activities. For sales teams, AI could help with Customer Relationship Management (CRM) programmes, pre-call preparation, sales feedback, e-detailing, which turns into strategic edge and improved sales performance. Over time, these automated systems provide extended value by constantly tracking patterns and maximising outcomes as new data is gathered. Generally speaking, this could help companies achieve more market outcomes with less money and less time (ETHealthworld, 2020).

## VII. ACKNOWLEDGMENT

We would like to thank all the researchers before us for all their efforts. We would also like to thank our mentor Dr. Manish Adhia for helping us with our review by providing valuable insights. We would also like to extend our gratitude to Dr. Bala Prabhakar, Dean, SPP SPTM, NMIMS for giving us the opportunity to work on this research project.

## REFERENCES

- [1] Agrawal, S., & Kaur, N., 2015. Influence of social media marketing in Indian pharmaceutical industry. *International Journal of Advance Research and Innovation*, 3(4), 735-738.
- [2] Akhtar, G., 2013. Indian pharmaceutical industry: an overview. *IOSR journal of Humanities and Social Science*, 13(3), 51-66.
- [3] Balfour, H. (2020). Digitalising marketing to physicians: what pharma needs to know. *European Pharmaceutical Review (EPR)*. Retrieved November 03, 2020, <https://www.europeanpharmaceuticalreview.com/article/115336/digitalising-marketing-to-physicians-what-pharma-needs-to-know/>
- [4] Balkanski, S., & Getov I. (2019). E-Detailing: Keyways for Successful Implementation of Digital Technologies in the Pharmaceutical Marketing, Promotion and Marketing Communications, Retrieved November 03, 2020, from <https://www.intechopen.com/books/promotion-and-marketing-communications/e-detailing-keyways-for-successful-implementation-of-digital-technologies-in-the-pharmaceutical-mark>
- [5] Banerjee, S., & Dash, S. K., 2011. Effectiveness of e-detailing as an innovative pharmaceutical marketing tool in emerging economies: Views of health care professionals of India. *Journal of Medical Marketing*, 11(3), 204-214.
- [6] Bhangale, V., 2008. Pharma marketing in India: Opportunities, challenges and the way forward. *Journal of Medical Marketing*, 8(3), 205–210. <https://doi.org/10.1057/palgrave.jmm.5050121>
- [7] Bhatt, A.D., 1993. Drug promotion and doctor: a relationship under change?. *Journal of postgraduate medicine*, 39(3), p.120.
- [8] Biesdorf, S., & Niedermann, F. (2020, March 01). Healthcare's digital future. Retrieved November 04, 2020, from <https://www.mckinsey.com/industries/healthcare-systems-and-services/our-insights/healthcares-digital-future>
- [9] Champagne, D., Hung, A., & Leclerc, O., 2015. The road to digital success in pharma. McKinsey White Paper.
- [10] Civaner, M., 2012. Sale strategies of pharmaceutical companies in a “pharmerging” country: The problems will not improve if the gaps remain. *Health policy*, 106(3), 225-232.
- [11] Das, S. (2020, May 9). PPEs, work-life balance the new normal as pharma salesforce hits the field. *Business Standard*. Retrieved November 03, 2020, from [https://www.business-standard.com/article/companies/ppes-work-life-balance-the-new-normal-as-pharma-salesforce-hits-the-field-120050900898\\_1.html](https://www.business-standard.com/article/companies/ppes-work-life-balance-the-new-normal-as-pharma-salesforce-hits-the-field-120050900898_1.html)
- [12] Dhanawade, S., Pawar, S., & Ghewari, A., 2009. Effective promotional tools for pharmaceutical products in the perception of physicians: an analysis. *Ethos*, 2(1), 46-56.
- [13] Digital Saline. (2020) Going Digital - A Thrust or Threat to Pharmaceutical Sales / Medical Representatives from <https://www.digitalsaline.com/blogs/read/going-digital-a-thrust-or-threat-to-pharmaceutical-sales-medical-representatives>
- [14] EP Bureau (2015). UCPMP: 'Code' word for pharma industry. Retrieved November 03, 2020, from <https://www.expresspharma.in/management-pharma/ucpmp-code-word-for-pharma-industry/>
- [15] ETHealthworld. (2020). The Role of AI in Pharma Sales & Marketing - ET HealthWorld. Retrieved November 03, 2020, from <https://health.economicstimes.indiatimes.com/news/health-it/the-role-of-ai-in-pharma-sales-marketing/74668883>
- [16] Express Pharma Archive. (2015). #Socialmedia: Trending in Indian pharma. Retrieved November 04, 2020, from <http://archive.expresspharmaonline.com/sections/market-section/1695-socialmedia-trending-in-indian-pharma#sthash.a99ryV7v.dpuf>
- [17] Gadre A, Diwate A., 2019 Promotional Practices of the Pharmaceutical Industry and Implementation Status of Pharmaceutical Industry and Implementation Status of India: N. R. Enterprises.
- [18] Government of India [GOI] (2017) Pharma Industry Promotion: Department of Pharmaceuticals. Retrieved November 03, 2020, from <https://pharmaceuticals.gov.in/pharma-industry-promotion>
- [19] Gulhati, C. M., 2004. Marketing of medicines in India. *BMJ*, 328(7443), 778–779. <https://doi.org/10.1136/bmj.328.7443.778>
- [20] Handa, M., Vohra, A., & Srivastava, V., 2013. Perception of physicians towards pharmaceutical promotion in India. *Journal of Medical Marketing: Device, Diagnostic and Pharmaceutical Marketing*, 13(2), 82–92. <https://doi.org/10.1177/1745790413480519>
- [21] Indegene, Pharmafuture. (2019) The digital savvy HCP Survey Top Trends 2019. Retrieved November 03, 2020, from <https://www.indegene.com/digitalSavvyHcp/pdf/hcp-survey-2019.pdf>
- [22] Jain, S., 2017. Bridging the gap between R and D and commercialization in pharmaceutical industry: Role of medical affairs and medical communications. *International Journal of Clinical and Biomedical Research*, 3(3), 44. <https://doi.org/10.5455/ijcbr.2017.33.12>
- [23] Jayakumar, P. B. (2020). Making Out of India. *Business News*. Retrieved November 03, 2020, from <https://www.businesstoday.in/magazine/cover-story/making-out-of-india/story/403601.html>
- [24] Katz, D., Caplan, A. L., & Merz, J. F., 2010. All gifts large and small: toward an understanding of the ethics of pharmaceutical industry gift-giving. *The American Journal of Bioethics*, 10(10), 11-17.
- [25] Krendyukov, A., & Nasy, D., 2020. Evolving communication with healthcare professionals in the pharmaceutical space: current trends and future perspectives. *Pharmaceutical Medicine*, 34(4), 247-256.
- [26] Krishnaswamy, K., Kumar, B. D., & Radhaiah, G., 1985. A drug survey—precepts and practices. *European journal of clinical pharmacology*, 29(3), 363-370.
- [27] Kumar, L., & Panigrahi, C. M. A., 2014. Communication with doctors: empowering Pharma field force with modern marketing techniques. *Asian Journal of Management Research*, 5(2).
- [28] Kumar, U. S., 2019. Case Study: Digitization and digitalization in pharmaceutical industry: opportunities and challenges in India. *Advances in Management*, 12(4), 23-29.
- [29] Kwak, E. S., & Chang, H., 2016. Medical Representatives' Intention to Use Information Technology in Pharmaceutical Marketing. *Healthcare Informatics Research*, 22(4), 342-350.
- [30] Ladani, R. (2018). Direct to consumer advertising of medicines and medical devices - a call for action! Retrieved November 03, 2020, from <https://www.expresspharma.in/management-pharma/direct-to-consumer-advertising-of-medicines-and-medical-devices-a-call-for-action-2/>
- [31] Lakshmi, B., & Patel, S., 2020. Digital Marketing in Pharmaceutical Industry—An Overview and Assessment.

- [31] Lal, A., 2001. Pharmaceutical drug promotion: how it is being practiced in India? In *The Journal of the Association of Physicians of India*, 49: 266–273.
- [32] Lexchin, J., 2020. Drug Promotion in India Since 2000: Problems Remain. *International Journal of Health Services*, 0020731420932109.
- [33] Liu, D., 2012. Benchmarking Data Reveals Pharmaceutical Industry Not Connecting Social Media Data with Marketing Strategies. *IBM Global Business Services*, 6.
- [34] McKinsey. (2009). *India Pharma 2020: Propelling access and acceptance, realizing true potential*. Retrieved November 04, 2020, <https://www.mckinsey.com>
- [35] Médecins Sans Frontières (MSF)., 2007. Examples of the importance of India as the “pharmacy for the developing world.”. Geneva: Médecins Sans Frontières Access to Essential Medicines Campaign.
- [36] Mishra, A. (2016). Sun Pharma’s RespiTrack mobile app to boost treatment compliance amongst asthma patients. Retrieved November 04, 2020, from <https://cio.economictimes.indiatimes.com/news/mobility/sun-pharmas-respitrack-mobile-app-to-boost-treatment-compliance-amongst-asthma-patients/52190194>
- [37] Molloy, W., Strang, D., Guyatt, G., Lexchin, J., Bédard, M., Dubois, S., & Russo, R., 2002. Assessing the quality of drug detailing. *Journal of Clinical Epidemiology*, 55(8), 825-832.
- [38] Moneycontrol.com (2011). New pharma code to help improve marketing practices. Retrieved November 03, 2020, from <https://www.moneycontrol.com/news/business/companies/-2097683.html>
- [39] Nagarajan, R. (2020). Mandatory pharma code: No plan for mandatory pharma code, says government: *India Business News - Times of India*. Retrieved November 03, 2020, from <https://timesofindia.indiatimes.com/business/india-business/no-plan-for-mandatory-pharma-code-says-govt/articleshow/78285961.cms>
- [40] Parekh, D., Kapupara, P., & Shah, K., 2016. Digital pharmaceutical marketing: a review. *Research Journal of pharmacy and technology*, 9(1), 108-112.
- [41] Pearl, D., & Stecklow, S. (2001, August 16). Drug Firms' Incentives Fuel Abuse by Pharmacists in India. Retrieved November 03, 2020, from <https://www.wsj.com/articles/SB997910373349012375>
- [42] Press Trust of India (PTI). (2020, September 26). National Medical Commission, India's regulator of medical education, comes into existence replacing MCI - *ET HealthWorld*. Retrieved November 03, 2020, from <https://health.economictimes.indiatimes.com/news/education/national-medical-commission-indias-regulator-of-medical-education-comes-into-existence-replacing-mci/78327209>
- [43] PricewaterhouseCoopers. (2008). *Pharma 2020: marketing the future: which path will you take*. Retrieved November 04, 2020, <http://www.pwc.com/gx/en/forms/gxengallspharma2020.jhtml>.
- [44] PricewaterhouseCoopers. (2012). *Pharma 2020: From vision to decision*. Retrieved November 03, 2020, from <https://www.pwc.ru/en/publications/pharma-2020.html>
- [45] Prounis, C., 2003. What doctors want. *Pharmaceutical Executive*, 23(5; SUPP), 12-23.
- [46] Rane, W., 1998. How ethical is the pharmaceutical industry in India. *Rational Drug Bulletin*, 8(4), 4-5.
- [47] Roychowdhury, V. (2014). The social media supermarket: Pharma still plays safe. Retrieved November 04, 2020, from <http://www.expresspharmaonline.com/20100228/management01.shtml>
- [48] Sharma, R., & Negi, M. M., 2020. Impact of Training on Medical Representative in Their Performance Special Reference of Alembic Pharmaceuticals Ltd. *American International Journal of Business Management*, 3(7), 91-96.
- [49] Sharma, U. (2020). Digital marketing should continue post-COVID-19: Experts. *Express Pharma*. Retrieved November 04, 2020, from <https://www.expresspharma.in/latest-updates/digital-marketing-should-continue-post-covid-19-experts/>
- [50] Venkat, K. (2020). *Pharmaceutical Advertising 2020: India: ICLG*. Retrieved November 03, 2020, from <https://iclg.com/practice-areas/pharmaceutical-advertising-laws-and-regulations/india>
- [51] World Health Organization, 1998. Health promotion glossary (No. WHO/HPR/HEP/98.1). World Health Organization.
- [52] Workneh, B.D., Gebrehiwot, M.G., Bayo, T.A., Gidey, M.T., Belay, Y.B., Tesfaye, D.M. and Kassa, T.T., 2016. Influence of medical representatives on prescribing practices in Mekelle, Northern Ethiopia. *PloS one*, 11(6), p.e0156795.
- [53] Ziegler, R., 2004. Pharma GRIDs: Key to pharmaceutical innovation. In *Proceedings of the HealthGrid conference (Vol. 2004)*.