Research Article

Perception analysis of Medical Representatives towards Effectiveness of E-Detailing in India: a Survey.

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ABSTRACT

Electronic detailing (e-detailing), is the utilization of electronic devices to aid sales presentations to Health care practitioner, the pharmaceutical industry is exploring e-Detailing as a way to maximize the effective time of sales force, cost-cutting and generate prescriptions by busy physicians. To utilize-detailing devices to maximum potential, it is important to understand medical representatives (MRs)' perception towards the effectiveness of e-detailing. This study investigates how electronic devices such as laptops and tablets are employed in pharmaceutical marketing; along with limitations and problems they are facing as well as their expectations to improve its use. To test this empirically, a questionnaire survey was conducted with 104 MRs. Overall, 62.6 % of MRs experienced using laptop and tablets in pharmaceutical marketing. However, the difference in rates was there across different groups of Medical Reps, categorized by company type, age, education, designation, and dealing region. This study provides information on the perception of medical representatives within the pharmaceutical industry towards e-detailing devices to develop a successful marketing strategy by understanding the requirements of MRs' who are the first line sales force and their intention to use e-detailing devices.

1. INTRODUCTION

Pharmaceutical product detailing to health care practitioners (HCPs) by Medical Representatives (MRs) are employed by pharmaceutical companies since years as a technique of product promotion and has proved to deliver the largest return on marketing investments by the pharmaceutical companies globally.

The traditional method of pharmaceutical marketing by face-to-face detailing continues to be predominantly used sales methods in India, but MRs generally have to wait a protracted time to meet with doctors, and even if they meet with doctors, they are attended for only a few seconds or a minute to brief about their products[1]. So, the effects of marketing communication are very confined under such restrictive conditions. Despite making huge investments, because the cost of MRs is increasing the practical effectiveness does not come up as expected by marketing managers and policymakers. Therefore, to make the sales process between MRs and the physicians more productive and cost-efficient, the pharmaceutical industry all over the world has been exploring various methods and models with various Internet-based digital applications[2]. Among such models, one of them is electronic detailing (e-detailing) which Pharmaceutical companies have developed using information and communication technology in pharmaceutical marketing as an alternative to the traditional method of face-to-face detailing. E-Detailing is an umbrella term covering the use of electronic devices and interactive media to enable sales pitch to physicians[5] e-Detailing may include sales calls by the help of electronic devices like tablets, laptops or smart phones, targeted emails to physicians suitable to their interest, online sample ordering, and live interaction with physicians through webinars or one-on-one video conferencing. Drivers behind the growth of e-detailing are, development of the web in everyday life, falling effectiveness of sales call and increasing costs of sales representative, the busy schedule of physicians with little time to entertain MRs, High connectivity and speed and acceptance of the internet by the physicians[5].

Many Multinational companies like GSK, Eli Lilly, Janssen, Pfizer, Novartis, etc as well as Indian MNCs like Cipla, sun pharma, Dr Reddy's, USV has also equipped its field force with devices like iPads. While there is an increase in research and interest regarding effectiveness of e-detailing, its ROI and cost measures, there is nothing known about attitude, perceptions, and issues of MRs1who plays a most important role in pharmaceutical sales. Therefore, this study is an attempt to spot the factors that affect the perception and attitude of MRs to use electronic devices for detailing, as they are the frontline users of e-detailing devices.

2. OBJECTIVE

1. To investigate how IT devices such as laptops, tablets, iPad and PCs are employed in pharmaceutical sales and marketing process and MRs' perception to use such devices.
2. To understand the role of different demographic (age, qualifications) social (working region) and professional variables (designation, company type) behind acceptability of e-detailing by medical representatives of India.

3. METHODOLOGY

3.1. *Conceptual work / Literature review*

To understand MRs' behavior and perception towards e-detailing, a literature review was done and based on information collected from the literature review; the methodology of the further study was drawn.

The major framework of the study was based on ease of use and learns the convenience of handling, technology acceptance, and effectiveness over traditional detailing. MR's personal and professional characteristics were also considered.

3.2. Survey design

Further analysis was conducted in two stages to address both the subjective and objective part of the study. To understand the subjectivity part about e-detailing, we took an in-depth interview of about ten MRs to understand their views about e-detailing. They were asked to share their insights about acceptability, usefulness and drawbacks of e-detailing and recommendations to improve its acceptability in India. The discussion was concluded and, to address the matter more objectively, a survey on medical representatives was conducted through Google forms, a well-prepared format of questionnaire was prepared and circulated online. These questionnaires were based on the previously conducted in-depth interview with medical representatives.

3.3. Sampling

A descriptive study was conducted with medical representatives by convenient sampling method. A total of 104 completed and usable responses were obtained from medical representatives from pharmaceutical companies.

3.4. Questionnaire design

A questionnaire was designed for medical representatives. Questions were meant for collecting their personal information like age, designation, education level, territory, means of detailing, average time used for detailing, methods of e- detailing used and its usefulness and acceptability over traditional detailing.

3.5. Types of questions

A well-structured questionnaire was prepared after an in-depth discussion. The questionnaire was pre-tested on 10 medical representatives. After a pilot with ten MRs, the questions were edited and the final survey tool was drafted with close-ended questions.

The respondents were asked to select the most appropriate answer among given options and, in a few questions, respondents were asked to give a number in order of preference. For these questions, responses were based on a Likert scale, ranging from\ 'strongly agreed' to 'strongly disagreed'. Along with demographical characteristics of MRs, such as gender, age, education, etc., work environment features, such as assigned region (urban or rural), company type (MNC or domestic) etc., were also included. Using 104 collected responses, data analyses were performed.

3.6. Data Collection

The subjects of this study were Medical representatives of India who were working in Multinational pharmaceutical companies, Indian multinationals and domestic pharmaceutical companies located in India. MRs was approached for three weeks using Non-probability, convenient sampling method.

Questionnaires were distributed to Cipla, Astra Zeneca, Sun pharmaceutical, J&J India, Abbott, BDR Pharmaceuticals, Intas Pharmaceuticals, GSK and other four pharmaceutical companies through social media platforms like WhatsApp, LinkedIn and Facebook and 104 responses were returned.

In this study, medical representatives from Hyderabad, Ahmedabad, Delhi, Bengaluru, Patna, Ranchi, Vadodara, Bhubaneshwar and Kolkata were approached by convenient sampling. Measurements were made based on the 5-point Likert Scale. All data input was recorded and the analysis was performed using Microsoft Excel 2019.

4. RESULTS AND DISCUSSION

4.1. Characteristics of Sample

A total of 104 medical representatives responded from pan India. All were associated with a pharmaceutical company and worked mostly in direct contact with physicians. Characteristics of the sample are displayed in Table 1.

Table 1. Characteristics of respondents by demography.

Gender	**Male**	**86(82.7%)**
	Female	18(17.3%)
Age	20-29	82 (78.8%)
	30-39	18(17.3%)
	40-49	3 (2.9%)
	50-59	1 (1%)
Education qualification	Graduation	58(55.8%)
	Post-Graduation	44(42.3%)
	Higher Studies (PhD)	2(1.9%)
Company	Multinational Company	54(51.9%)
	Indian MNC	38(36.5%)
	Domestic/Local	12(11.5%)
Designation	Territory Business Manager	85(81.7%)
	Area Business Manager	16(15.4%)
	Regional Business Manager or Above	3(2.9%)
Working Region	Metro Politian City	75(72.1%)

Non-metro City	28(26.9%)
Rural Area	1(1%)

Out of 104 participants, 86 (82.7%) respondents were men, and 18 (17.3%) were women. The age distribution of respondents consisted of 82 (78.8%) were in their 20s, 18 (17.3%) were in their 30s, 3 (2.9%) in their 40s, and 1 (1%) was in his 50s. MRs' education level was concentrated in 58(55.8%) Graduated, 44(42.3%) Post-Graduated and only 2(9%) had Higher education above PG i.e. PhD. Among 104 participants, 54(51.9%) were working in Multinational companies, 38(36.5%) were working in Indian MNC and 12(11.5%) in domestic/local Pharmaceuticals Companies. Their designation was classified in three categories as 85(81.7%) were Territory business manager, 16(15.4%) were Area business manager and 3(2.9%) of them were Regional business manager or above. Their working region was found predominantly Metro Politian city 75(72.1%), followed by 28(26.9%) from Non-metro cities and only 1(1%) was found to be working in Rural area.
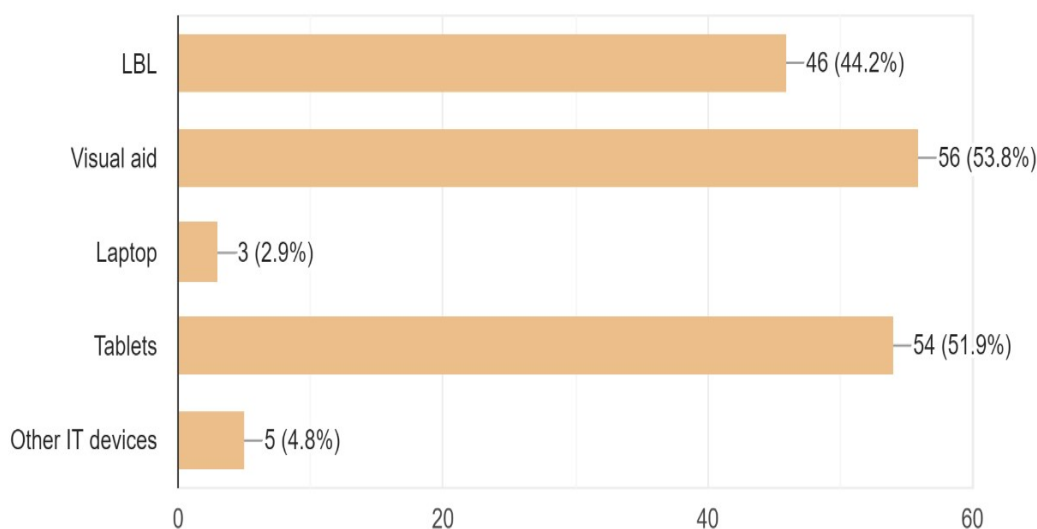
4.2. Means of Detailing

Fig. 1. Means of detailing.

A most popular method used for detailing in pharmaceutical companies was found to be traditional Visual Aid (56 respondents, 53.8%) followed by digital promotion using Tablet by 54(51.9%) medical reps. Most of the reps. used VAF along with tablets. LBL was used by 46(44.2%) MRs due to hustle free detailing. Only 3(2.9%) were using the laptop during their visit. So, from this, we can conclude that the combination of traditional tools (visual aid) along with digital promotional tools (tablets) is widely accepted in pharmaceutical companies.

4.3 Usage of e-detailing in detailing

This question was raised for getting an outcome of our interest to find out how much technology has penetrated pharmaceutical companies in India. Out of 104 respondents, 53.8% replied that the usage of technology in their detailing is high, 33.7%said medium and only 12.5% responded with low. Thus, these 13 participants responding with low usage were eliminated from further questions.

4.4 Formal Training given by companies for e- detailing

Remaining 91 respondents were asked about have they received any formal training for the usage of e-detailing devices. 75.8% replied yes and 24.2%didn't receive any formal training by the companies to use e-detailing devices.

4.5. Methods of e-detailing

In the survey, we found that scripted e-detailing is the most popular method of e-detailing that was used by medical representatives. 41(45.1%) of 91 respondents used scripted e-detailing through apps, followed by 29(31.9%) used Audio-visual detailing. Virtual live e-detailing was used by 24(26.4%) MRs and E-detailing via online portal were used by 21(23.1%) MRs. Lastly, 12(13.2%) MRs was using E-mails for detailing.
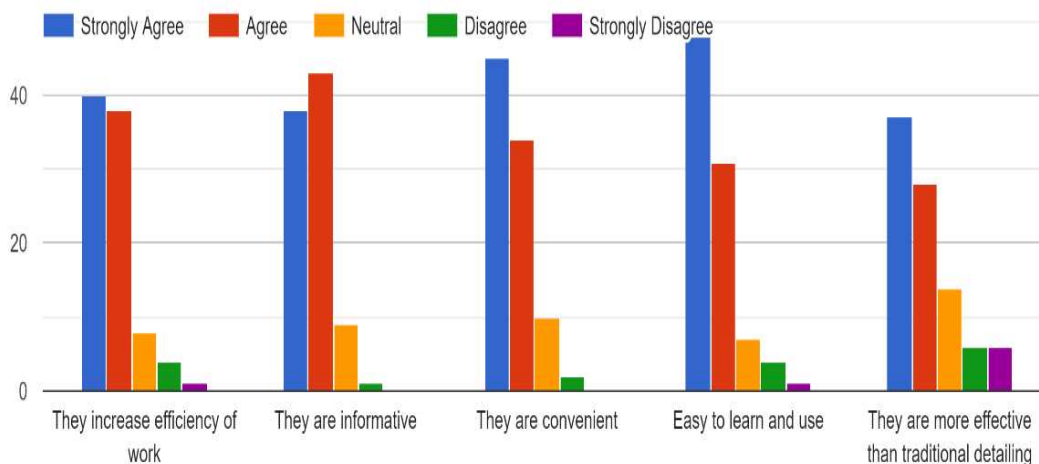
4.6. E-detailing experience

Fig. 2. e-detailing experience response presented in a 5-point Likert scale.

Multiple factors regarding the perception of medical reps for the usage of E-detailing were considered and response for each factor was presented in a 5-point Likert scale.

- **Informative:** 43(47.3%) of 91 respondents strongly agreed that e-detailing is an informative tool followed by 38(41.8%) agreed, 9(9.8%) remain neutral and only 1(1.1%) med rep disagreed.

- **Convenient to use:** 45(49.4%) of 91 respondents strongly agreed that e-detailing is convenient to use followed by 34(37.4%) agreed, 10(11%) remain neutral and only 2(2.2%) med rep disagreed. However, nobody strongly disagreed that e-detailing is informative and convenient to use tool for detailing.
- **Easy to learn and use:** 48(52.7%) of 91 respondents strongly agreed that e-detailing is easy to learn and use followed by 31(34.1%) agreed, 7(7.7%) remain neutral, 4(4.4%) responded disagree and only 1(1.1%) med rep strongly disagreed.
- **Increase efficiency:** 40(44%) of 91 respondents strongly agreed that e-detailing increased their efficiency followed by 38(41.7%) agreed, 8(8.8%) remain neutral, 4(4.4%) responded disagree and only 1(1.1%) med rep strongly disagreed.
- **More effective than traditional detailing:** 37(40.7%) of 91 respondents strongly agreed that e-detailing is more effective than traditional detailing followed by 28(30.7%) agreed, 14(15.4%) remained neutral, 6(6.6%) of respondents disagree or strongly disagreed.

It is found interesting over here, that for the first 4 factors almost 85-90% respondents were strongly agreed or agreed but for the last factor regarding effectiveness over traditional detailing, only 70% strongly agreed or agreed. From this, we can conclude that still, around 30% found traditional detailing to be equivalent or more effective than e-detailing.

To analyze the views of MRs regarding perceived effectivity of e-detailing over traditional detailing considering various demographic factors. The analysis was done using a pivot table.

4.6.1. Effect of Age on the perception of MRs towards e-detailing

Out of 13.2% respondents who disagreed or strongly disagreed for the effectivity of e-detailing compared with traditional detailing 8.8% belongs to the age group of 20-29 years and the same age group in favour are 56% of 71.4% respondents who strongly agreed or agreed for more effectivity of e-detailing.

From this, we can conclude that almost 75% of participants who disagreed, 79% of participants who remains neutral and 78% of participants who agreed are in the age group of 20-29 years. This shows that this young age group who all are working field will have a great impact on the success of E-detailing and it is useful to train them properly to make e-detailing a success. Out of 17 who belong in the age group of 30-39 years were having 60-40% ideology, i.e. 58.8%of them agreed and 41.2% disagreed or remains neutral. Because of years of experience, they are comfortable in using traditional ways. Proper training is necessary for them as well.

4.6.2. Effect of Education on the perception of MRs towards e-detailing

The candidates who pursued higher studies were 2 of 91 candidates and they 100% strongly agreed for e-detailing to be more effective than traditional detailing. Among candidates who pursued post-graduation 61% agreed or strongly agreed for e-detailing to be more effective and 39% remains neutral or disagreed for the same. This shows that among post-graduate MRs 60-40

perception was found for e-detailing to be more effective than traditional detailing. Among the graduate sales force, 77.4% agreed on e-detailing to be more effective.

4.6.3. Effect of Designation on the perception of MRs towards e-detailing

70% of TBMs found e-detailing to be more effective than traditional detailing and 13% disagreed for the same. Among area business managers 85% agreed for the effectivity of e-detailing. 100% RBM found it to be more effective. This shows that almost everyone agrees that e-detailing is effective over traditional detailing irrespective of their designation and everyone found it easy to learn and use.

4.6.4. Company type vs. use of detailing devices

Out of the 104 respondents, the rate of usage of laptops and computers was only 2.9%, while that of tablets was 51.9%. The percentage of use of such electronic devices showed difference depending on the type of company they belong to. A comparative analysis was made on the usage rate of IT devices according to their companies, the results are presented in **Table 2**. It was found that there was a higher use of tablets in MNC i.e. out of 54 respondents of Multinational companies representative 63%were using the tablet in their detailing and 57%MRs were using LBL and Visual aid for their detailing in MNC.

Table 2. Devices used by companies for detailing.

Type of Company	Count of device used for detailing												
	L+T	LBL+O	LBL+T	LBL	LBL+V	LBL+V+T	LBL+V+T+O	O	T	V	V+L+T	V+T	Grand Total
Domestic/Local		1			7					3		1	12
Indian MNC	1	3		3	6	2	2	1	10	9	1		38
Multinational Company	1	1	1	5	8	7		1	20	9		1	54
Grand Total	2	5	1	8	21	9	2	2	30	21	1	2	104

Note: L= Laptop; T= Tablet; LBL= Leave behind literature/leaflets; O= Other IT devices; V= Visual Aid

When the results of domestic companies were observed, a completely different outcome was found. Out of 12 participants of domestic companies, 92% were using visual aid for detailing and only 8% was using tablets for detailing. This shows that still, the invasion of technology is minimal in domestic companies.

For Indian MNC companies, this usage ratio was near about 50-50 for digital as well as traditional promotion. The usage of digital promotion along with LBL and VAF was accepted by 20(53%) respondents out of 38 and 47.3%respondents of 38 were solely using traditional ways of promotion with LBL and Visual aid. From this, we can conclude that the balance of digital and traditional promotion is well maintained in Indian MNC companies.

The rate of usage of laptops was only 2.9%, (more with the people having higher hierarchy) while that of tablet PCs was 51.9%. The Rate of using IT devices was maximum in Multinational companies and Indian MNC. Most of the MRs even after receiving laptop computers or tablet PCs from the company, still used paper brochures like LBL and VAF book. As LBL act as reminders for doctors shows the highest effectivity for brand recognition, thus most of the companies still use it as an important tool of promotion.

Table 3. Effect of Age on perception MRs towards e-detailing.

Age	Count of More effective than traditional detailing					
	Agree	Disagree	Neutral	Strongly Agree	Strongly Disagree	Grand Total
20-29	22	4	11	29	4	70
30-39	3	2	3	7	2	17
40-49	3					3
50- 59				1		1
Grand Total	**28**	**6**	**14**	**37**	**6**	**91**

Table 4. Effect of Education on perception of MRs towards e detailing.

Education	Count of More effective than traditional detailing					
	Agree	Disagree	Neutral	Strongly Agree	Strongly Disagree	Grand Total
Graduation	20	2	7	21	3	53
Higher Studies (PhD)				2		2
Post-Graduation	8	4	7	14	3	36
Grand Total	**28**	**6**	**14**	**37**	**6**	**91**

Table 5. Effect of designation on perception of MRs towards e detailing.

Designation	Count of More effective than traditional detailing					
	Agree	Disagree	Neutral	Strongly	Strongly	Grand

				Agree	Disagree	Total
Area Business Manager	6		1	5	1	13
Regional Business Manager or Above		1		1		2
Territory Business Manager	22	5	13	31	5	76
Grand Total	**28**	**6**	**14**	**37**	**6**	**91**

5. CONCLUSION

IT industry is booming in today's era and IT devices have become widespread in the 21st century, the pharmaceutical industry has also begun to use laptop, computers and tablets to aid sales and marketing and utilize it in e-detailing. The Indian pharmaceutical sector is also adopting this new way of marketing. But as it is in the initial stage, HCPs, as well as MRs, are not very prone to use it[3]. As it is evident from the survey that the MRs who receive laptop computers or tablet PCs still preferring traditional paper brochures (Visual aids and LBLs) more than electronic devices as they are finding it less customer (physician) friendly than traditional detailing due to lack of customization options, navigation and handling problems, too many loaded presentations in less engaging formats, Internet connections and network issues, and battery life of devices. MRs and doctors both are needed to be properly trained before introducing e-detailing concepts to them. On concluding remarks few measures pharmaceutical companies should take are:- Engaging physicians in a meaningful conversation using fresh data, Creating personalized and tailor-made content for each physician using data analytics[4], Proper training of medical representative in handling and use of devices, more addition of pictorial representations, animations, and short videos to explain scientific contents, Pharmaceutical companies can also set different standards for sales reps to judge their success not only by the number and frequency of calls but by the number of opened emails or number of views on the video, etc.[5] , MRs should have the authority of preparing customized customer-centric folders for doctors (specialty wise/ according to their area of interest or point of concern) in the tablets/iPad provided to them.

6. ACKNOWLEDGEMENT

7. CONFLICT OF INTEREST

There aren't any conflicts of interest related to this publication.

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