

AN EXPLORATORY STUDY OF WORKING CONDITIONS OF MEDICAL REPRESENTATIVES IN INDIA

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Abstract

Medical representatives are responsible for promotion of drugs to doctors, on behalf of their pharmaceutical organization. In India there are about 0.3 million medical representatives. There are believed to be 20,000 pharmaceutical organizations in India out of which the top 250 companies contribute to 70% of the Pharmaceutical industry turnover, which was around 21 billion dollars in 2010. The present study focuses on working conditions as well as compensation and other benefits offered to medical representatives. The study involved a survey of 91 medical representatives (or 91 pharmaceutical companies). Literature review has not given any significant results in this study. The study is exploratory in nature. The study found that Indian pharmaceutical companies offer low levels of compensation as well as other benefits to medical representatives and hence they are dissatisfied by their companies and want to change their companies. Majority of them want to change to some multinational pharmaceutical company. The working conditions are quite demanding and involve long hours of working. The survey will be very useful for the pharmaceutical companies as they will know about the compensation and working conditions of Medical representatives across the industry and hence take appropriate steps to improve the working conditions of their Medical representatives. Further research is required to find out deeper factors which affect the working conditions of Medical representatives. The limitation of the study was that the research was carried out only in the city of Mumbai and adjoining areas.

Keywords: *Medical Representatives, Working Conditions, Job Satisfaction*

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INTRODUCTION

The Indian pharmaceutical industry is fourth largest all over the world in terms of volumes and thirteenth largest in terms of value. The domestic turnover of the Indian pharmaceutical industry stood at 12.26 billion dollars and the exports were 8.78 billion dollars. The growth rate of the Indian pharmaceutical industry is 11% which is one of the best in the world. The global pharmaceutical industry on the other hand is growing at 7% annually. The Indian Pharmaceutical industry is expected to reach US \$ 55 billion in 2020 according to a report titled "India Pharma 2020: Propelling access and acceptance, realizing true potential" by McKinsey & Company. The Indian pharmaceutical industry is highly fragmented having around 20,000 registered units. The top 250 companies control 70% of the market share, with the market leader Abbot enjoying only around 7% of the market share.

Pharmaceutical companies use medical representatives to promote their drugs to the doctors. They use huge amounts of money on promoting drugs by giving samples, gifts etc to the doctors. Pharmaceutical companies also earn huge amounts of profits. They employ literally 'armies' of medical representatives to aggressively promote their drugs. There are no correct figures available for total number of medical representatives in India. Estimates vary from 1 lakh representatives to 20 lakh medical representatives in India. However the authors own experience of working in the Indian pharmaceutical industry says that there are minimum 3 lakhs medical representatives working in India. Studies documenting the salary, other benefits and working conditions of medical representatives have not been conducted in India. The life of a MEDICAL REPRESENTATIVE is quite tough. Pharmaceutical companies give monthly and yearly targets to Medical representatives which are quite tough to achieve in view of the fact that there are 20,000 pharmaceutical companies and there is cut throat competition in the industry. Their day starts early morning and often ends late into the night. They have to meet on an average 12 doctors and 5 chemists per day apart from meeting and taking orders from stockists (Dealers) of the company. They also have to do a lot of touring covering rural and semi urban areas. They are issued a bag to carry samples, order books, visual aid etc. The weight of the bag is typically 5-10 kgs. which has to be handled by the MEDICAL REPRESENTATIVE throughout the day. They have to use their own scooter/motorcycle for their travelling although companies do provide for travelling expenses. In India medical representatives are looked down upon and get very little respect in the society. However in Europe and America medical representatives are highly respected in society and travel by car and earn good salaries comparable to any profession in their country.

LITERATURE REVIEW

The author used PROQUEST to find out papers on working conditions or compensation of medical representatives but could not find any research paper. Using google some articles on medical representatives were found and studied.

Noemie(2006) in her article outlines that Indian pharma companies are outsourcing a portion of their MEDICAL REPRESENTATIVE workforce in a bid to become more competitive. Both domestic and MNC pharma companies are following this practice. Pharma companies also want to break down the MEDICAL REPRESENTATIVE trade unions. FMEDICAL REPRESENTATIVEAI , the association of Medical representatives say that this leads to significant deterioration on working conditions of Medical representatives as the outsourced Medical representatives get less salary and have no job security.

Jain(2011) in his Doctor's survey has pointed out that they share a very strong relationship with Medical representatives who impart knowledge on most recent trends in medical treatment to the doctors. There is a growing challenge in hiring the right talent for detailing, training Medical representatives to communicate the uniform, brand message to Doctors. Doctors in the survey suggested that regular MEDICAL REPRESENTATIVE visits are useful for brand recall.

Michailidis and Dracou (2011) have studied the levels of job satisfaction of medical representatives in Cyprus using the job characteristics model. The segment of medical representatives least satisfied in the survey was graduate degree holders and those belonging to the age group of less than 28 years old and those working in the industry for 2-5 yrs demonstrated low general satisfaction levels.

Mathew (2007) in his article reports that pharmaceutical companies are headed for a showdown with medical representatives. The Sales Promotion Employees (Conditions of Service) Act, 1976 includes medical representatives as workers which gives them the right to form unions. Pharmaceutical companies are representing the Indian government to declassify medical representatives under the SPE Act. The FMEDICAL REPRESENTATIVEAI had approached the Indian Government to bring about legislation for a 8 hr working schedule for medical representatives and uniformity in working conditions across the pharmaceutical industry.

Andaleeb and Tallman (1996) in their research conducted on Doctors in USA found that Doctors viewed medical representatives as important source of information but felt they could get needed information from other sources also. Samples and gifts provided by Medical representatives was not found important for them however financial assistance for attending continuing medical education(CME) was important for them.

Anbarsa and Mehta (2010) in their survey of sales staff working in pharmaceutical, insurance, banking & finance companies found that most of the business strategies attribute least priority to the sales staff which results in high turnover intentions among the employees. The study involved survey of 100 sales representatives and explores the quality of working life perceptions in them. Results show that sales people are although aware about their job requirements. However their working environment is not conducive to support them lowering their perceptions on quality of work life.

RESEARCH METHODOLOGY

The survey involved collection of primary data from medical Representatives working in the Industry. The first step was development of a questionnaire. The questionnaire was developed on the basis of preliminary interview with around 12 medical representatives, who also participated in a discussion and outlined key areas. The questionnaire also kept into mind the objectives of research and literature review. The questionnaire consisted of 21 questions including demographic details. The method of sampling used was convenience sampling.

The sample size was taken to be 250 which were considered well enough for this research. The respondent is the medical representative working in a pharmaceutical company. There is no published list of medical representatives working in Mumbai. It is estimated that there are around 20,000 pharmaceutical companies in India. There is no list of pharmaceutical companies present in Mumbai. Majority of Medium & large pharmaceutical companies have different divisions and each division could be having about 300-600 medical representatives all over India. One of the top ten pharmaceutical company has around 4,000 medical representatives all over India. Thus it is difficult to establish total number of medical representatives in Mumbai & adjoining areas. However my own experience would put that number to around 10,000. Considering the limitations of resource constraints, the study was conducted on 250 medical representatives. The study was conducted from October 2011 to December 2011.

The city of Mumbai & adjoining areas was divided into 5 zones as following.

1. Navi Mumbai-Vashi to Belapur
2. South Mumbai-Colaba to Dadar
3. Central suburbs- Kurla to Kalyan
4. Western Suburbs- Bandra to Borivali
5. Hospitals-All over Mumbai

Data was collected from medical representatives working in all the 5 zones. 250 questionnaires were filled up. 12 questionnaires were rejected because details were not filled up properly. Further 147 questionnaires were rejected on the ground that a medical representative from that company (or from a division of that company) had already filled up the form. Pharmaceutical companies have several divisions which market a specific number of drugs, all over the country. In preliminary survey it was brought out that pay conditions are almost the same across divisions therefore considering questionnaires from different divisions of the same company was not considered prudent enough. In the end only 91 questionnaires were considered.

DATA ANALYSIS

The data was fed into SPSS and was analyzed using descriptive statistics. Following tables were generated and interpretation was done.

Table 1
Age of Medical Representative

		Frequency	Percentage	Valid Percent	Cumulative Percent
Valid	21-25	53	58.2	58.9	58.9
	26-30	31	34.1	34.4	93.3
	31-35	5	5.5	5.6	98.9
	35 & above	1	1.1	1.1	100.0
	Total	90	98.9	100.0	
Missing	System	1	1.1		
Total		91	100.0		

Majority of respondents (Medical representatives) are quite young (21-25 yrs) and very few Medical representatives found on the field were above the age of 30 yrs. This may be due to the reason that they get promoted or they join the industry but later on get better opportunities in other sectors.

Table 2
Sex of Medical Representatives

		Frequency	Percentage	Valid Percent	Cumulative Percent
Valid	Male	82	90.1	90.1	90.1
	Female	9	9.9	9.9	100.0
	Total	91	100.0	100.0	

Although females have started working in sales in the Indian Pharmaceutical industry for quite some time however their percentage is still quite low. Only about 10% of Medical representatives surveyed were women. This is due to the high physical & mental stress levels of working in the sales profession.

Table 3
Qualification of Medical Representative

		Frequency	Percentage	Valid Percent	Cumulative Percent
Valid	B.Sc.	50	54.9	55.6	55.6
	B. Pharm	27	29.7	30.0	85.6
	BCom/BA	9	9.9	10.0	95.6
	Others	4	4.4	4.4	100.0
	Total	90	98.9	100.0	
Missing	System	1	1.1		
Total		91	100.0		

Majority of Medical representatives have done their graduation in science however what is surprising from the above data is that B.Pharm graduates are also going in for the job of a medical representative. Also what is very interesting is that pharmaceutical companies are finding shortage of talent for recruiting Medical representatives as they have started hiring B.Com/B.A graduates for the post of MEDICAL REPRESENTATIVE. This was unheard of in the Indian pharma industry a decade back because only science graduates were allowed in this profession as they had some knowledge of biology/chemistry.

Table 4
Territory Covered

		Frequency	Percentage	Valid Percent	Cumulative Percent
Valid	South Mumbai	20	22.0	22.0	22.0
	Western Suburbs	30	33.0	33.0	54.9
	Central suburbs	31	34.1	34.1	89.0
	Navi Mumbai	9	9.9	9.9	98.9
	Hospital Division	1	1.1	1.1	100.0
	Total	91	100.0	100.0	

A fair representation is there for all parts of Mumbai however response from MEDICAL REPRESENTATIVE working in hospitals is negligible which however will not affect this study.

Table 5
How long working as Medical Representative

		Frequency	Percentage	Valid Percent	Cumulative Percent
Valid	0-1 yrs	17	18.7	18.9	18.9
	1-2 yrs	29	31.9	32.2	51.1
	2-3 yrs	21	23.1	23.3	74.4
	3-4 yrs	10	11.0	11.1	85.6
	4-5 yrs	5	5.5	5.6	91.1
	5-6 yrs	3	3.3	3.3	94.4
	above 6 yrs	5	5.5	5.6	100.0
	Total	90	98.9	100.0	
Missing	System	1	1.1		
Total		91	100		

Majority of medical representatives surveyed were quite young into the profession and very few medical representatives were having more than 4 yrs experience in the industry. This corroborates with results in Table 1 where majority of medical representatives were below 30 yrs age. The profile of medical representatives has changed over the years, one to two decades back medical representatives were mostly in the age group of 30-50 yrs. Majority of medical representatives used to retire from the same. However today the profile of is mostly for youngsters.

Table 6
Salary of Madical Representative

		Frequency	Percentage	Valid Percent	Cumulative Percent
Valid	Rs. 5,000-Rs. 10,000	6	6.6	6.6	6.6
	Rs.10,001-Rs.15,000	36	39.6	39.6	46.2
	Rs. 15,001-Rs. 20,000	26	28.6	28.6	74.7
	Rs. 20,001-Rs. 30,000	21	23.1	23.1	97.8
	Rs. 30,001 & above	2	2.2	2.2	100.0
	Total	91	100.0	100.0	

Around 40% of Medical representatives are getting salary in the range of Rs 10,000 to Rs. 15,000. The situation has changed as compared to the scenario where Medical representatives used to get very low salary. Salary levels may have got better because of high attrition rate in the Indian pharma industry as well as emergence of high paying sectors like BPO where a fresher can earn around Rs. 15,000 working in an air conditioned office.

Table 7
Working Hours (on an Average)

		Frequency	Percentage	Valid Percent	Cumulative Percent
Valid	7 hrs daily	5	5.5	5.5	5.5
	8 hrs daily	26	28.6	28.6	34.1
	9 hrs daily	14	15.4	15.4	49.5
	10 hrs daily	28	30.8	30.8	80.2
	more than 10 hrs daily	18	19.8	19.8	100.0
	Total	91	100.0	100.0	

More than 50% of Medical representatives have admitted to spending 10 hrs & more daily. This proves that working in this profession is quite strenuous and the profession demands high levels of physical labor apart from mental stress.

Table 8
Casual Leaves

		Frequency	Percentage	Valid Percent	Cumulative Percent
Valid	upto 8 per Yr	21	23.1	24.7	24.7
	9 per Yr	15	16.5	17.6	42.4
	10 per Yr	28	30.8	32.9	75.3
	11/Yr	11	12.1	12.9	88.2
	12 per year	10	11.0	11.8	100.0
	Total	85	93.4	100.0	
Missing	System	6	6.6		
Total		91	100.0		

Majority of Pharma companies are giving Casual leave between 8-10 days which is a good practice.

Table 9
Medical Leave

		Frequency	Percentage	Valid Percent	Cumulative Percent
Valid	upto 8 per Yr	11	12.1	12.8	12.8
	9 per Yr	15	16.5	17.4	30.2
	10 per Yr	25	27.5	29.1	59.3
	11 per yr	16	17.6	18.6	77.9
	more than 11	18	19.8	20.9	98.8
	13	1	1.1	1.2	100.0
	Total	86	94.5	100.0	
Missing	System	5	5.5		
Total		91	100.0		

Majority of Pharma companies are giving medical leave upto 11 days in a year which is an acceptable practice.

Table 10
Earned Leave

		Frequency	Percentage	Valid Percent	Cumulative Percent
Valid	upto 10 per year	17	18.7	20.0	20.0
	11-15 per year	11	12.1	12.9	32.9
	16-20 per year	14	15.4	16.5	49.4
	21-25 per year	26	28.6	30.6	80.0
	26-30 per year	17	18.7	20.0	100.0
	Total	85	93.4	100.0	
Missing	System	6	6.6		
Total		91	100.0		

Very few companies are giving 30 days earned leave in a year. 20% have admitted to getting only 10 days earned leave which is against good human resource practices where every employee is given 30 days earned leave in a year.

Table 11
Daily Allowance

		Frequency	Percentage	Valid Percent	Cumulative Percent
Valid	Rs. 101-150	15	16.5	16.5	16.5
	Rs. 151-200	46	50.5	50.5	67.0
	Rs. 201 & above	30	33.0	33.0	100.0
	Total	91	100.0	100.0	

Around half of the pharma companies are giving daily allowance in the range of Rs.151-200, with 33% even saying that they get more than Rs. 200, which is a good sign for this profession because the medical representative has to travel lot of distances every day in meeting doctors and chemists.

Table 12
Does Company give Gratuity

		Frequency	Percentage	Valid Percent	Cumulative Percent
Valid	Yes	72	79.1	79.1	79.1
	No	19	20.9	20.9	100.0
	Total	91	100.0	100.0	

Majority of medical representatives have said that their company gives gratuity however 20.9% have said that they do not get gratuity. This may be because majority of medical representatives surveyed are very young into the profession and may not be aware about gratuity as it is only given when an employee has spent 5 years or more in the company.

Table 13
How much PF deducted

		Frequency	Percentage	Valid Percent	Cumulative Percent
Valid	none at all	1	1.1	1.1	1.1
	Rs. 780 flat with equal contribution of employer	8	8.8	8.9	10.0
	12% of basic salary with equal contribution of employer	81	89.0	90.0	100.0
Missing	Total	90	98.9	100.0	
Total	System	1	1.1		
		91	100.0		

Majority of medical representatives have said that P.F is being deducted at 12% rate with equal contribution of employer. This is a good sign for anyone wishing to join the profession.

Table 14
How many Doctors to be met

		Frequency	Percentage	Valid Percent	Cumulative Percent
Valid	upto 8 per day	13	14.3	14.3	14.3
	9-10	33	36.3	36.3	50.5
	11-12	35	38.5	38.5	89.0
	more than 12	10	11.0	11.0	100.0
	Total	91	100.0	100.0	

Majority of medical representatives are required to meet 9-12 doctors per day with a small minority of medical representatives reporting that they are required to make more than 12 calls per day. Greater is the call requirement of a company greater is the stress level of the medical representative.

Table 15
How many Chemists to be met

		Frequency	Percentage	Valid Percent	Cumulative Percent
Valid	0-2	14	15.4	15.4	15.4
	3-5	40	44.0	44.0	59.3
	6-8	35	38.5	38.5	97.8
	9-10	2	2.2	2.2	100.0
	Total	91	100.0	100.0	

Majority have reported meeting between 3-8 chemist calls in a day.

Table 16
Stockists met everyday

		Frequency	Percentage	Valid Percent	Cumulative Percent
Valid	0	25	27.5	28.1	28.1
	1	36	39.6	40.4	68.5
	2	15	16.5	16.9	85.4
	3	2	2.2	2.2	87.6
	4	3	3.3	3.4	91.0
	5	5	5.5	5.6	96.6
	more than 5	3	3.3	3.4	100.0
	Total	89	97.8	100.0	
Missing	System	2	2.2		
Total		91	100.0		

Majority of medical representatives are meeting upto 1 stockist(Dealer) in a day. However the situation in other parts of the country may be different as the present study is confined to Mumbai & adjoining areas only.

Table 17
How much incentives earned

		Frequency	Percentage	Valid Percent	Cumulative Percent
Valid	upto Rs. 25,000	11	12.1	13.9	13.9
	Rs. 25,001-Rs. 50,000	8	8.8	10.1	24.1
	Rs. 50,001-Rs. 75,000	17	18.7	21.5	45.6
	Rs. 75,001-Rs. 1,00,000	25	27.5	31.6	77.2
	Rs. 1,00,000-Rs. 2,00,000	14	15.4	17.7	94.9
	more than Rs. 2,00,000	4	4.4	5.1	100.0
	Total	79	86.8	100.0	
Missing	System	12	13.2		
Total		91	100.0		

The amount of incentives earned by Medical representatives is not high with only 20% reporting earning more than 1 lakh & above per year.

Table 18
Travelling Allowance

		Frequency	Percentage	Valid Percent	Cumulative Percent
Valid	monthly IInd Class Local Train Pass	2	2.2	2.3	2.3
	monthly 1st Class Local Train pass	65	71.4	73.9	76.1
	Petrol expenses for Bike	11	12.1	12.5	88.6
	Rs./Km	10	11.0	11.4	100.0
	Total	88	96.7	100.0	
Missing	System	3	3.3		
Total		91	100.0		

Majority of medical representatives in Mumbai get a monthly local train 1st class pass as travelling allowance from their company.

Table 19
Allowances for mobile

		Frequency	Percentage	Valid Percent	Cumulative Percent
Valid	Rs. 101- 200	11	12.1	12.4	12.4
	Rs. 201-300	17	18.7	19.1	31.5
	Rs. 301-400	20	22.0	22.5	53.9
	above Rs. 400	41	45.1	46.1	100.0
	Total	89	97.8	100.0	
Missing	System	2	2.2		
Total		91	100.0		

Pharma companies are now giving allowance for mobile and a significant 45% medical representatives reporting getting more than Rs. 400 per month mobile allowance.

Table 20
Has Company given Laptop

		Frequency	Percentage	Valid Percent	Cumulative Percent
Valid	Yes	15	16.5	16.7	16.7
	No	75	82.4	83.3	100.0
	Total	90	98.9	100.0	
Missing	System	1	1.1		
Total		91	100.0		

Pharma companies have started giving laptops for product detailing to the doctors and for administrative work which is a good resource for the sales & medical professionals, however this is limited to few companies only.

Table 21
Happy with Medical Representative Profession

		Frequency	Percentage	Valid Percent	Cumulative Percent
Valid	Highly satisfactory	9	9.9	10.0	10.0
	Satisfactory	55	60.4	61.1	71.1
	Neutral	18	19.8	20.0	91.1
	Unsatisfied	8	8.8	8.9	100.0
	Total	90	98.9	100.0	
Missing	System	1	1.1		
Total		91	100.0		

Majority of medical representatives have reported satisfaction in working in this profession which is a good signal for pharma companies which are fighting with high attrition rates at this level.

Table 22
Dream Pharma company

		Frequency	Percentage	Valid Percent	Cumulative Percent
Valid	MSD	6	6.6	7.3	7.3
	GSK	11	12.1	13.4	20.7
	Pfizer	16	17.6	19.5	40.2
	Abbot	7	7.7	8.5	48.8
	Astra Zeneca	1	1.1	1.2	50.0
	Ranbaxy	2	2.2	2.4	52.4
	same company	22	24.2	26.8	79.3
	others	17	18.7	20.7	100.0
	Total	82	90.1	100.0	
Missing	System	9	9.9		
Total		91	100.0		

Pfizer has emerged as the dream company to work for followed by Glaxo and the market leader Abbot. Only 24% of medical representatives were satisfied with their company and would like to continue in their company which is a bad signal for sales and human resource managers in the pharma companies.

Table 23
Given a Choice

		Frequency	Percentage	Valid Percent	Cumulative Percent
Valid	Work in the Pharma Industry only	80	87.9	88.9	88.9
	Work in some other industry	10	11.0	11.1	100.0
	Total	90	98.9	100.0	
Missing	System	1	1.1		
Total		91	100		

This is something which will cheer up the pharma industry as majority medical representatives would like to continue to work in the pharma industry only.

CONCLUSION & RECOMMENDATIONS

This study of medical representatives who are the frontline sales force of pharma companies has thrown up interesting facts. Majority of medical representatives surveyed are quite young (21-30 yrs). The profession is still not attracting women who constitute a very small percentage of the frontline sales force. Pharma companies have started hiring B.A/B.Com graduates due to lack of finding science graduates. This will definitely lead to degradation of the medical representative profession as B.Com/B.A graduates will not be able to satisfy doctor queries. B.Pharma graduates are also finding it difficult to get jobs in their area and are entering frontline pharma sales profession.

The working conditions in this profession are quite harsh as Medical representatives are forced to work long hours (10 hrs & more also). Medical representatives have to make 9-12 doctor calls per day apart from meeting 3-8 chemists per day which makes their day quite tough especially in Mumbai city where travelling is very difficult and the packed local trains are the only practical option.

Medical representatives are getting casual leaves and medical leaves as per industry standards but majority have reported not getting 30 earned leave in a year. Medical representatives have reported getting daily allowance more than Rs. 150 per day which is good sign for the profession. Pharma companies are also giving provident fund and gratuity as per industry standards.

The pharma industry is not paying good incentives as only 20% reported earning more than Rs. 1 lakhs per year. Majority of Medical representatives reported salary levels in the range of Rs. 10,000-20,000 which in today's times of high inflation seems quite less. However pharma companies are paying good allowances for mobile and some have also started giving laptops. Laptops serve as a handy marketing aid for the sales professionals and the administrative tasks (sending daily reports etc.) also get accomplished faster.

Majority of medical representatives have reported satisfaction in working in this profession and wanting to work in this industry only, however only about 20% want to continue in their company. The dream company of Medical representatives is Pfizer followed by Glaxo and Abbot, which are all MNC pharma companies. The study shows that MNC Pharma companies have emerged as dream companies to work for by Medical representatives in India.

Recommendations to Pharma companies in India are:

1. Working conditions of medical representative have to be closely looked into. Number of Doctor, chemist and stockist calls per day standards should be practically set so that both medical representative & doctors benefit.
2. Pay structure & incentives should be benchmarked comparable to other industries for similar position.

3. Salesforce automation should be vigorously pursued by pharma companies as it makes the life of a medical representative easier.
4. Pharma companies should give a scooter/motorcycle as mode of transportation to Medical representatives after completion of their probation so that their stress level in travelling goes down.
5. Domestic Indian pharma companies have to re-examine their H.R policies as majority of Medical representatives want to join a MNC Pharma company.
6. Pharma companies should try to increase the percentage of women in their sales force and avoid hiring B.com/B.A graduates as Medical representatives.

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REFERENCES

- Financial Express, August 18, 2010, FMEDICAL REPRESENTATIVEAI plans to gherao parliament in Nov if demands not met.
- Andaleeb S.S, Tallman R.F (1996), Relationship of physicians with pharmaceutical sales representatives and pharmaceutical companies: An Exploratory study, Health marketing Quarterly, Vol. 13, Issue 4.
- Gunawardhana K.D, Sasin S.E (2009), An Empirical study of the factors that impact medical representative's attitude toward the intention to use M-learning for career development, Journal of Management, Vol.15, No. 1.
- Bisserbe N. (2006), Outsourcing radar picks up medical representatives, Times of India, 23 Dec.
- Anbarasa V., Mehta N.K(2010), Quality of working life among sales professionals in pharmaceuticals, insurance, banking & finance companies, Indian Journal of Industrial Relation, Vol. 46, Issue 1.
- Langer E., Kelkar A. (2008), Pharmaceutical distribution in India, Blopharm International, Sep 2008.
- Jain A. (2011), Medical representative visits-Basket of Knowledge, or waste of time, 19 July 2011.
- Sander et al. Stress at work, DHHS (NIOSH) publication, No. 99-101.
- Joe C. Matthew, (2007), Drug firms, salesmen on collision course, Business Standard, Dec 26, 2007.
- Background of FMEDICAL REPRESENTATIVEAI, www.fmedicalrepresentativeai.com
- Adukia R.S, A Handbook on Labor laws of India.
- The Tribune, Jandhar Plus, Wed Aug 18, 2010, Medical Representatives on 2- day strike.
- National competency standards for Biopharmaceutical medical representatives, medical representatives certification commission(MEDICAL REPRESENTATIVEECC), www.medicalrepresentativecommission.org
- Michailidis M.P, Dracou N. (2011), The Job redesigning process: a study of medical representatives using the job characteristics model, The Business review, Cambridge Vol 14, No. 1.
- Wright R.F, Lundstrom W.J (2004), physicians perception of pharmaceutical sales representatives: A model for analyzing the customer relationship. International Journal of Medical marketing, 4, 1 pg. 29-38.