THE RELATIONSHIP BETWEEN WORK ENVIRONMENT FACTORS AND TRAINING TRANSFER AMONG MEDICAL REPRESENTATIVES IN LUCKNOW AREA

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By

Ana Rizvi

Under the Supervision of

Dr. Surendra Kumar

Professor, School of Management ,

Babu Banarasi Das University, Lucknow.

Under the Co-Supervision of

Dr.Sushil Pande

Professor, School of Management ,

Babu Banarasi Das University, Lucknow.

School of Management

Babu Banarasi Das University,

Lucknow, 226 028 (U. P.), India

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Certificate of the Supervisor(s)

This is to certify that the thesis, entitled The Relationship between Work Environment Factors and Training Transfer among Medical Representatives in Lucknow Area submitted by Ana Rizvi for the award of Degree of Doctor Philosophy by Babu Banarasi Das University, Lucknow is a record of authentic work carried out by him/her under my/our supervision. To the best of my/our knowledge, the matter embodied in this thesis is the original work of the candidate and has not been submitted elsewhere for the award of any other degree or diploma.

Dr. Sushil Pande   **Dr. Surendra Kumar**

Research Co-guide   Research Guide

Professor   Professor

School of Management   School of Management

Babu Banarsi Das University   Babu Banarsi Das University

Lucknow   Lucknow

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PREFACE

Training today is a crucial part of an organization's activities. The global and the domestic market are becoming more competitive. To survive and keep their existing on the market, companies should acquire competitive advantages. Skilled employees and workers is one of the most important advantages that companies can take over their competitors. Training is on of the ways that companies follow to improve their employees' skills. Training is costly, and generally speaking, training programs do not achieve their goals, due to many problems and barriers. The present study looked at the effect of work environment factors such as supervisors support and co-workers support, and the moderating effects of educational background and employee characteristics on transfer of training and training transfer maintenance. The present study was carried out among medical representatives working from various pharmaceutical companies in Lucknow city.

Two surveys were conducted with the help of questionnaires developed. Descriptive analysis was done for the role of work environment factors on training transfer and maintenance. The hypothesis was tested through chi –square test. It was seen that the major work environment factors identified such as peer support, supervisor support, time lapse, academic qualification and employee

characteristics support training transfer amongst Medical Representatives positively. The objectives of the study were:

i. To find out the work environment factors affecting training transfer of medical representatives

ii. To find out the relationship among the work environment factors

iii. To assess the relative impact of work environment factors on training transfer

iv. To assess the relative impact of work environment factors on training transfer maintenance

The major findings were:

i. The peer support and supervisor support are positively linked to training transfer and hence the organisations can use the untapped potential of social network to improve training transfer

ii. The academic qualification and employee characteristics are also positively linked to training transfer and hence there is a need to customise trainings according to individual needs.

iii. The time lapse also affects training transfer hence, there is a need to re-evaluate and conduct trainings required by the medical representatives from time to time.

It will help organizations, human resource personnel face issues like the accurately identifying factors that encourage and inhibit transfer as they develop their own programs with the vital goal of increasing organizational performance. For further research there is a scope for study into transfer maintenance after a certain time lag to see how much of their training the members retain which can be done at intervals of 3 months to 6 months to check the effectiveness of training programs attended by member. The results of the research have been published in:

1. Rizvi, Ana & Kumar, Surendra ,Knowledge Management: Training a mobile workforce, National Seminar on Organisational Development Through Knowledge Management in Digital India, Motilal Rastogi School of Management, proceedings published in ISBN:978-1-63535-768-4,Enriched Publication ,Lucknow, February 2017.

2. Rizvi, Ana & Kumar, Surendra, A review of major training transfer studies of the past, International Journal of Research in Computer Application and Management, Vol. 7, No. 9, 2017.

3. Rizvi, Ana & Kumar, Surendra, Essential Factors for Training Transfer: A Study of Pharmaceutical Representatives in Lucknow Area, International Journal of Research in Commerce, IT and Management, Vol. 7, No. 9, 2017.

4. Rizvi, Ana & Kumar, Surendra, Training And Work Environment Factors As Tools For Managerial Effectiveness: A Case Study Of Pharmaceutical Companies In Lucknow, International Journal of Research in Commerce and Management , Vol. 9 , No. 4 ,2018

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CHAPTER I

INTRODUCTION

The pharmaceutical industry produces, sells and promotes drugs used as panacea for various ailments. Pharmaceutical companies are allowed to deal in generic or brand medication and medical equipments. The pharmaceutical industry discovers, develops, formulates and sells medicines. Pharmaceutics is the discipline of pharmacy that deals with the process of turning a new chemical unit or old drugs into a medication to be used carefully and successfully by patients. It is also called

the science of dosage form design**.** They come under the purview of various regulatory laws regarding the patent, tests, trials, safety and marketing of drugs. The pharmaceutical industry is the world's largest industry due to worldwide revenues of approximately US$2.8 trillion. Pharma industry has seen major changes in the recent years that place new demands on payers, providers and manufacturers. Customers now demand the same choice and convenience from pharmaceutical industry that they find in other segment. The pharmaceutical industry is a knowledge driven industry and is heavily dependent on research and development for new products and growth. However, basic research which involves discovering new medicine for treatment is a time intense and costly route and is thus, dominated by large multinational companies.

The pharmaceutical industry involves heavy research and development expenditure. It is only the large pharmaceutical companies who can allocate considerable capital for research and development to introduce new products. As the products are an outcome of significant research and development expenditures sustained by these companies, they have their products patented. The patent allows the companies concerned to exert immense pricing power for new products. The best known pharmaceutical companies include GlaxoSmithKline, Pfizer and AstraZeneca, but there are hundreds more. Some companies have research and development and manufacturing sites of their own while others may use the research and development of the others.

The global pharmaceuticals market is worth US$300 billion a year, a figure expected to rise to US$400 billion within three years. Companies currently

spend one-third of all sales revenue on marketing their products - roughly twice what they spend on research and development. As a result of this pressure to maintain sales, there is now, according to World Health Organisation, *"an inherent conflict of interest between the legitimate business goals of manufacturers and the social, medical and economic needs of providers and the public to select and use drugs in the most rational way"*. This is particularly true where drugs companies are the main source of information as to which products are most effective. In United Kingdom, where the medical profession receives more independent, publicly-funded information than in many other countries, promotional spending by pharmaceuticals companies is fifty times greater than spending on public information on health of the country.

To tackle this problem, the World Health Assembly adopted, in 1988, the WHO Ethical Criteria for Medicinal Drug Promotion, dedicated to the rational use of drugs. However, many observers complain that these guidelines have been largely disregarded - as has the voluntary Code of Pharmaceutical Practices developed by the industry's own International Federation of Pharmaceutical Manufacturers' Associations.

1.1   Pharmaceutical Industry in India

Pharmaceutical is a growing industry employing thousands of people in India every year. According to Department of Pharmaceuticals, the total turnover of India's pharmaceuticals industry between 2008 and September 2009 was US$21.04 billion. India is among the top 20 pharmaceutical exporting countries and the exports have grown very significantly in the 11th plan period. Indian drugs are exported to around 200 countries in the world to the highly regulated markets of USA &UK.

Table 1.1: The employment data for the pharmaceutical sector from the Annual Survey of Industries (ASI) is given below:

Year	No of Employees
Mar 1995	1,81,497
Mar 1996	2,04,609
Mar 1997	2,11,614
Mar 1998	1,89,295
Mar 1999	2,13,999
Mar 2000	2,43,410
Mar 2001	2,33,704
Mar 2002	2,26,416
Mar 2003	2,23,556
Mar 2004	2,40,791
Mar 2005	2,65,396
Mar 2006	2,90,021
Mar2007	3,36,211
Mar 2008	3,53,692

Table 1.2: Functional Distribution of Human Resource in Pharmaceutical

Function	Distribution
Production & Quality Control	50%
Research/Lab/Testing	20%
Sales, Marketing, Medical assistance	5%-10%
Purchase, Logistics, Supply Chain	5%-10%
Support functions (HR, Finance, etc.)	10%-12%

Sector in India

The organized sector of India's pharmaceutical industry consists of 250 to 300 companies, which account for 70 percent of products on the market, with the top 10 firms representing around 30 percent. However, the total sector is estimated at nearly 20,000 businesses, some of which are extremely small. Approximately 75 percent of India's demand for medicines is met by local manufacturing. In 2013, the pharmaceutical industry had a workforce of about 4, 50,000. This included researchers, scientists, doctors and project managers. (*Source: the Ministry of

Statistics and Programme Implementation). According to CMIE data base, the wage bill of the domestic companies reported more than twelve-fold increase over 15year period from Rs 664cr in 1994-95 to Rs 8,172cr in 2009-10. The employees in various functions of the sector have been segregated and the functional distribution of Human resources as reported by the 12th planning commission in its report based on National Skills Development council is as follows:

Indian pharmaceutical industry is facing a considerable change in its aims, objectives, parameters of growth in changing scenario on account of globalization at the corporate level merger, acquisition phases are taking place. Newer developments cropping on account of new innovation are made alongside each other, intrinsic life style, health care and health consciousness and caution have risen to such unimaginable heights as never before .An attempt is required to focus on issue of development of HR practices in pharmaceutical industries. In the times of globalization, free economy, disinvestment policy, privatization of public sector a flexible thinking is needed to deal with the human resource issues arising in this fast growing sector.

Spending per year on training the employees for pharmaceutical sales is expected to be worth millions of rupees and is ever increasing with the efforts of the pharmaceutical companies to capture new territories .For this purpose the companies provide their employees with myriad trainings to enhance their skills and aid in their

expansion plans. But the important question that arises is that how much of learnings gained from these trainings is actually transferred to their job performance.

The performance of job does not depend on the trainings and abilities of the employees alone, as any employee does not work in a vacuum, but there are always certain environmental factors surrounding the performer which are bound to have an effect on his efficiency. These may be intrinsic or the internal factors that affect his performance like his state of mind at the time or extrinsic that may be related to people he is associated with work or with his work environment itself.

The work environment always plays a major role in the performance of work if the employee gets adequate supervision , encouragement ,remuneration , reward or recognition he would feel motivated to achieve his targets but in case the work environment is not supportive he may feel discouraged and the performance of tasks may become gruelling for him.

Training transfer is an important facet determining the effectiveness of the training programmes. A failure to transfer the learning from training to the job would end up as a loss to the organisation as organisations invest substantial amount of time and money in HRD programmes. Also here an attempt is made to study the various aspects of work environment which have an effect on or have a relationship with the training transfer.

1.1.1 Background of Pharma industry in India
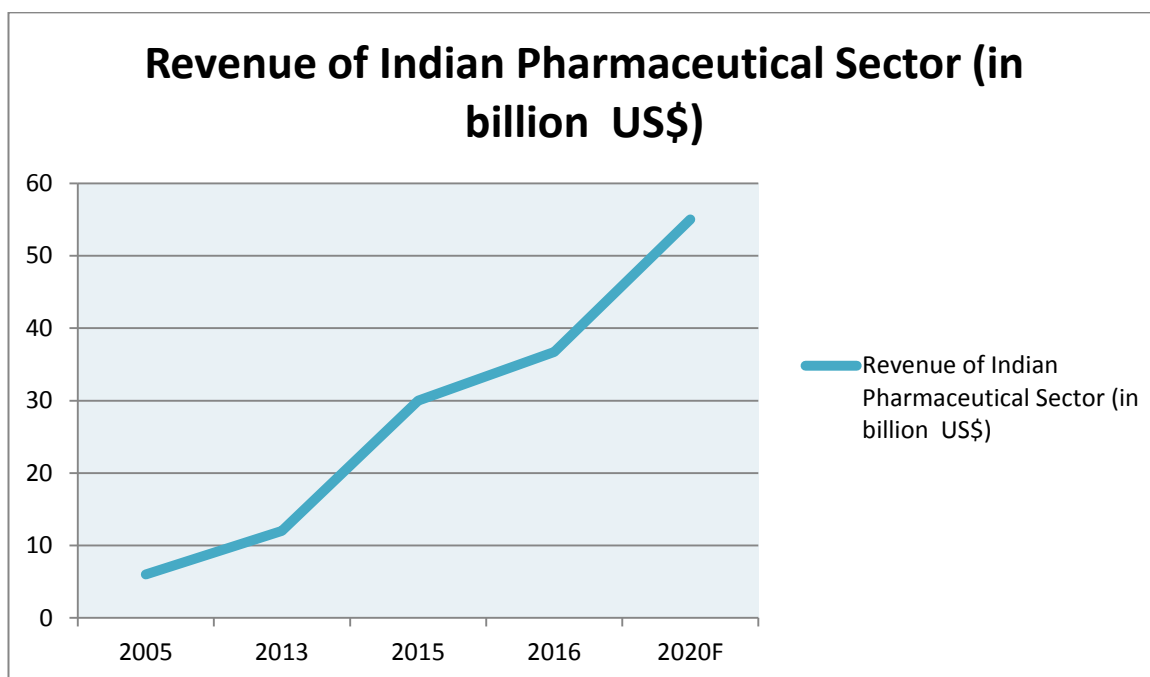
Fig 1.1 Revenue of Indian Pharmaceutical Sector (in US$)
***Source: Department of Pharmaceuticals, IBEF (www.ibef.org)**
Notes: F = Forecast

India has more US FDA approved laboratories than any other country outside the USA. A number of US companies already source pharmaceutical raw materials from India. In comparison with China, the wide use of English in commerce is mooted as an advantage to US companies, along with India's tradition as an exporting nation.

The Indian Pharmaceutical sector is highly fragmented with more than 20,000 registered units. It has expanded drastically in the last two decades. The

leading 250 pharmaceutical companies control 70% of the market with market leader holding nearly 7% of the market share.

Unlike in other countries, the divide between biotechnology and pharmaceuticals remains fairly defined in India. Biotechnology still plays the role of pharmaceutical sectors' sibling, but many outsiders have high expectations for the future. India accounted for 2% of the $41 billion global biotech market and in 2003 was ranked 3rd in the Asia-Pacific region and 11th in the world in number of biotechnology .In 2004-05; the Indian biotechnology industry saw its revenues grow 37% to $1.1 billion.

The Indian biotechnology sector parallels that of the U.S. in many ways. Both are filled with small start-ups while the majority of the market is controlled by a few powerful companies. Both are dependent upon government grants and venture capitalists for funding because neither will be commercially viable for years. Pharmaceutical companies in both countries have recognized the potential effect that biotechnology could have on their pipelines and have responded by either investing in existing start-ups or venturing into the field themselves.

1.1.2 Historical Concept

Charak and Sushruta were the pioneers of pharmaceuticals in ancient India. The   pharmaceutical history of India is said to have begun from Gupta period from approximately 320 to 550 CE. Charak Samhita and Sushruta Samhita are the two foundational texts of Ayurvedic therapy having appraisal on medicine,

pharmaceuticals and surgery. Indians were dependent only on the native form of medicine before British rule. The use of this therapy is still being studied and used not only in India alone but also in rest of the world.

The allopathic medication in India was started during the British Era. But production of such medicines was not done here. Foreign countries made the final products in their units using the raw materials imported from India and exported back to India. It was 1982 when few of the Indian scientists like P C Ray, T K Gajjr, and A S Kotibhaskar laid a foundation for a pharmaceutical industry in India with the end product being produced in India itself. In 1901 Acharya P C Ray started first Indian Pharmaceutical Industry, Bangal Chemical in Calcutta. Within few years some more Indian entrepreneurs came forward to form the pharmaceutical industries. In 1907 Alembic Chemical Works in Baroda, in 1919 Bengal Immunity were started. This was considered as a foundation of Indian pharmaceutical industry. This initial production of drug industry could meet 13% of countries medicinal requirement.

During 1950s and 60s the global pharmaceutical market saw tremendous growth while the Indian pharmaceutical sector was not a part of the global revolution. The capital and new technologies were major factors hindering the growth of Indian sector. It was recognized that participation of foreign capital and enterprise, particularly as regards industrial technique and knowledge, will be of value to the rapid industrialization of the country. Hence government of India tried to attract multinational companies to invest in India. As a result of liberalizations in government policies, many foreign companies invested in Indian sector. With the

government efforts and investment of global entrepreneurs, Indian pharmaceutical sector could achieve the growth of Rs 35 crore in 1952 from Rs 10 crore in 1947.This growth was mainly contributed by manufacturing the bulk drugs rather than final product.

When Government of India observed that in the pharmaceutical sector the multinational companies were behaving just like trade agents, i.e. importing drugs and marketing in India and were not engaged in activities that would build domestic competence, a new strategy with the lead role assigned to the public sector firms was devised for building up the pharmaceutical industry. The Industrial Policy Resolution of 1956 classified industries into three categories based on their priorities. "Schedule A" industries were exclusively reserved for the public sector and "Schedule B" consisted of industries, where the public sector would play a lead role and the private sector was expected to supplement the efforts of the State. "Schedule C" consisted of the remaining industries whose future development was left to the private initiatives. The pharmaceutical industry fell under Schedule B. Private industry was also encouraged, though strictly regulated through industrial licensing. In the licensing policy, government made it mandatory for the multinational unites to produce the final drug in their units from the basic stage. The licensing was granted under the supervision of The Directorate General of Technical Development for setting up the new units or expansion of the existing units keeping into an account of the medicinal need of the country.

As a result of this policy many MNCs expanded their units and many new Indian companies established. With this the Indian pharmaceutical sector could achieve the growth up to Rs 100 crore in 1962. In pursuit of these policies, the Government of India established five public sector companies in India of which two played very important roles- Hindustan Antibiotics Ltd. (HAL) and Indian Drugs and Pharmaceuticals Ltd (IDPL) in 1954 and 1961 respectively. IDPL was established in with technical assistance from USSR and HAL with the technical assistance of World Health Organisation (WHO) and United Nations International Children's Emergency Fund (UNICEF). The two companies played a major role in building up technical competence in the industry as well in establishing a strong bulk drug industry in the country. HAL was the first drug manufacturing company to be set up in the public sector by government of India with the social objective of providing affordable drugs.

Initially it was started with manufacturing Penicillin. It is the first company in India to commence bulk production of Streptomycin sulphate, Penicillin-G, 6-APA and Ampicillin. It is only Indian company in pharmaceutical segment to discover two new molecules namely Hamycin and Aurofungin. IDPL is the largest Central Pharma Public Sector Undertaking in India with plants at Rishikesh, Gurgaon & Hyderabad and two Subsidiary Units at Chennai and Muzaffarpur. IDPL was incorporated in April, 1961 with main objectives of creating self-sufficiency in respect of essential life saving medicines, to free the country from dependence on imports and to provide medicines to the millions at affordable prices and not to make

millions from the medicines. IDPL was basically conceived and established as a part of Healthcare Infrastructure and has played a pioneering infra-structural role in the growth of Indian Drug Industry base.

The two companies played a major role in building up technical competence in the industry as well in establishing a strong bulk drug industry in the country. IDPL and HAL created a new environment and confidence that India could manufacture bulk drugs in a major way. The university system in India at that time did not provide the specialized training required by the pharmaceutical industry. IDPL and HAL not only encouraged the university system to impart specialized training required for the pharmaceutical industry by creating a demand for skilled workers.

Today, India has gained immense importance and carved a niche for itself in the pharmaceutical domain. In fact, it has emerged as a big mart for the pharmaceutical industry. In today's world, Indian pharmaceutical industry ranks 4th in terms of volume and 13th in terms of value. For example it might be anything like formulations, bulk drugs, generics, Novel Drug Delivery Systems, New Chemical Entities, or Biotechnology, etc. Indian companies are dominating in the marketplace which was traditionally manned by MNC's. To continue the growth and achieve the global leadership the sector has to come up with systematic approach in terms of

research and process development for which the basic requirement is trained manpower.

1.1.3 Evolution of Indian Pharmaceutical Industry

i. Upto1990: There were many changes in this sector the major being the passing of Indian Patent Act passed in 1970. Several domestic companies started their operations during this period. There was development of production infrastructure and initiatives were taken by the government to increase export in this sector.

ii. 1990 to 2010: This was the phase of liberalisation in the Indian economy with the breaking away of the fetters of licence regime .The government promoted private sector investments. Indian companies launched operations in foreign turfs and developed new markets for growth. India emerged as a major destination for generic drug manufacture. This period was also marked by approval of Patents (Amendment) Act 2005, which led to adoption of product patents in India.

iii. 2010 onwards : During this period there was an increased patent filings by pharmaceutical players in India .Adoption of improved &newer sales models has been done by companies in India such as channel management, Targeted

Sales Models such as Enhanced Key Account Management (KAM) and Closed-Loop Marketing (CLM) and through CSO which is the acronym for Contract Service Organization, commonly used to refer to the outsourcing of tasks within the pharmaceutical, biotechnology and medical devices industries. Leading Pharma companies have increased their R&D spending on new cost effective generic products to strengthen their presence across global markets .During this period the government brought The National Pharmaceutical Pricing Policy, 2012 (NPPP-2012) In the year 2013 ,New Drug Pricing Control Order issued by Directorate of Food and Drugs this will reduce the prices of drugs by 80%. In the year 2014 100% FDI was allowed in medical device industry. The investment for this is to be routed automatically. National Health Policy Draft 2015 was completed to increase expenditure in health care sector. Another change was Patent Act Amendment 2015; it includes amendments in Patent Act 2002. Leading Indian Pharma companies are raising funds aggressively to fund acquisition in domestic as well as international market to increase their product portfolios.

1.1.4 Current Trends:

Today in India, Pharma Industry rank's first of India's science-based industries with wide ranges of capabilities in the complex field of drug manufacture and technology. The industry is estimated to be worth $4.5 billion, which is growing at 8-9% annually. It is one of the best and highly organized sectors. The sector

specializes in term of technology, quality and range of medicines manufactured. The product of the industry ranges from simple headache pills to sophisticated antibiotics and also complex cardiac compounds.

The Indian Pharmaceutical industry has been witnessing phenomenal growth in recent years, driven by rising consumption levels in the country and strong demand from export markets. The Indian pharmaceutical industry is the most progressive and advanced among all the developed and developing countries. Today, India is among the top five pharmaceutical emerging markets in the world. The market is expected to grow at a compound annual growth rate (CAGR) of 14-17% over 2012-2016. The total revenues of the market stood at US$ 11 billion and by 2020 the revenues of the market are estimated to reach US$ 74 billion. Demand from the exports market has been growing rapidly due to the capability of Indian players to produce cost-effective drugs with world class manufacturing facilities. At the projected scale, this market will be comparable to all developed markets other than the US, Japan and China. The growth in Indian domestic market will be boosted by increasing consumer spending, rapid urbanization and increasing healthcare insurance. Indian pharma companies have a large chunk of their revenues coming from exports. While some are focusing on the generics market in the US, Europe and semi-regulated markets, others are focusing on custom manufacturing for innovator companies.

i. **Leading Pharma producer**: In terms of value the country's pharma industry accounts for 1.4% and 10% in terms of volume of the global pharma industry.

ii. **Among fastest growing Industries**: The IPI (Indian Pharmaceutical Industry) revenue is expected to expand at a CAGR of 17.8 % during 2008-16 and reach USD36 billion

iii. **Rapid growing healthcare sector**: By 2015, the healthcare sector is expected to reach USD 100 billion from the current USD65 billion.

iv. **Growing Generic Market**: The generic market is expected to grow to USD26.1 Billion by 2016 from current USD11.3 billion in 2011; India generics Market has immense potential for growth

v. **Ranked 5th in terms of attracting FDI**: Attracted 5% of the total FDIs into India from April 2000 to March 2013.

Pharma industry promotes the sustainable development in the vital field of medicines by boosting the quality producers and many units approved by regulatory authorities in USA and UK. The companies associated with this sectors which are international have stimulated, assisted and spearheaded the dynamic development in the past 53 years and helped to put India on the pharmaceutical map of the world. The growth of Indian Pharma Industry has grown tremendously since 2008-09 in terms of exports. The Indian pharmaceutical industry has grown from a humble Rs 1,500 crores turnover in 1980 to approximately Rs 1, 00611 in 2009-10.

Indian pharmaceutical industry is undergoing fast paced changes. The Indian Generics market is witnessing rapid growth opening up immense opportunities for firms. This is further triggered by the fact that generics worth over $40 billion are going off patent in the coming, few years, which is close to 15% of the total prescription market of the US.

The need to cut costs is persuading US and Western European firms to seek alternative destinations such as China and India for clinical trials. Another factor in this decision is that India and China have joined the World Trade Organization (WTO), which has invigorated both countries' economies. As a result, clinical trials conducted in these countries are no longer confined to evaluating new medicines for their own markets. India and China have opened up new opportunities for Western European and US firms to expand their pharmaceutical and biotechnology product markets substantially. In 2006, the global clinical trials sector is estimated to be about $10 billion and has the potential for considerable growth over the next few years.

India presents a good option for outsourcing several drug development process components, including clinical trials, due to such factors as:

i. Excellent and expanding hospital and clinical facilities

ii. Huge patient population base

iii. Therapeutic diversity

iv. Data processing infrastructure for bioinformatics

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Well-trained physicians and support personnel
Dominant generic drug makers
Relaxed regulatory environment

1.1.5 Size of industry

The Indian Pharma Industry has around 70% of the country's demand for bulk drugs, drug intermediates, pharmaceutical formulations, chemicals, tablets, capsules, orals and injectibles. 250 large units and about 8000 Small Scale Units, form the core of the pharmaceutical industry in India. The units produced have the complete range of medicines which are ready for consumption by patients.

1.1.6 Technological environment

Companies are faced with the realization that the only way they can continue to sell first generation drugs (in the absence of licensing or distribution agreements) is by discovering and developing them indigenously. For Indian firms, there are two routes to this end. They can either latch onto the skills of MNCs or they can embark on programs to develop their own technical capacities.

1.1.7 New Drug Development

Several Indian companies (e.g., Ranbaxy, DRL, Dabur, and Wockhardt) are turning the prospect of increased patent protection to their advantage by spearheading new drug discovery programs. Developing new drugs is time and

capital-intensive. Their costs have been substantially lower than global benchmarks –
for example, DRL, estimates research costs as one eightieth of those of its MNC
competitors – and their success rate has been higher. Indian companies have yet to
place their own products on global markets, but there is reason to believe that at least
some of their endeavours will succeed as planned. Even if one accepts DRL's
exceptional cost claims, Indian companies are still advised to seek ways to reduce
costs and risks.

1.1.8   Non-technological Strengths

India's Pharmaceutical companies must also expand and develop their
non-technological strengths to keep pace with MNC competition. In keeping with
this broader development strategy, some companies are placing greater emphasis on
developing state-of-the-art processes and novel delivery systems. Also, companies
are choosing to concentrate on non-technological phases of the product cycle, such a
marketing and distribution, and low-technology product areas such as traditional
medicines and generic drugs.

Another particularly popular non-technological strategy, related to
"India skills" above, consists of local companies entering into alliances with MNCs
that do not have strong India presence in order to co-market their products. These
Indian companies have become specialists in the marketing and distribution phase of
the product cycle.

1.1.9 Expansion

Indian companies – which have traditionally limited themselves to domestic production and distribution – must therefore grow larger to enter discovery and to expand to developed export markets.

1.1.10 Strategies Adopted

The pharmaceutical companies resort to using various strategies for marketing of the drugs manufactured. Notable amongst these are:

1.1.11 Cost management

Companies in the sector are trying to achieve cost leadership in various ways. For example, Sun Pharma is trying to achieve the same by Vertical Integration: Complex Active Pharmaceutical Ingredients, which require special skills and technology, are developed and scaled up for both Active Pharmaceutical Ingredients and dosage forms

1.1.12 Product Differentiation

Companies in the sector are trying to distinguish themselves by investing greatly on R&D efforts. For example,

❖ In 2015, Lupin launched a research and development centre for inhalation products in Florida, US

- ❖ Sun Pharma endeavours to develop technically complex Active Pharmaceutical Ingredients, such as steroids, sex hormones, peptides, carbohydrates and taxanes, which require special skills and technology

- ❖ Dr Reddy's invested in technology plans. It acquired OctoPlus N.V, a Netherlands-based company, to get access to the Poly Lactic-Co-Glycolic Acid (PLGA) technology for the preparation of intricate injectibles

1.1.13 New Market Development

- ❖ Certain companies in the sector are focussing on entering new markets with new opportunities. For example, Lupin is making way into markets such as Latin America, Russia and other East European countries

- ❖ Sun Pharma focuses on specialty and chronic therapies such as neurology, oncology, dermatology segments

1.1.14 Mergers, Acquisitions, and Partnerships

Mergers have occurred between Indian companies such as DRL and Cheminor, between MNC subsidiaries such Hindustan Ciba-Geigy and Sandoz India (Novartis), and between Indian and foreign companies. With respect to acquisitions, companies such as Ranbaxy, Sun, and DRL have purchased assets from firms based in other countries in order to expand their international presence. Partnerships ad marketing alliances are also increasingly common. Conversely, other Indian

companies are looking to international partners to market, distribute, and gain approvals for their products in foreign markets.

1.1.15 Domestic and Export Share

Liberalization has substantially increased the global competitiveness of Indian pharmaceutical products, as local companies have been forced to compete alongside MNCs in their home market. Moreover, as the Indian market becomes more crowded, companies are increasingly pressured to look elsewhere in order to expand their revenues. For these reasons, the majority of the Indian companies have taken specific measures to boost exports.

In India the output of Indian Pharmaceutical industry increased to Rs260 billion in the financial year 2002, which accounts for 1.3% of the global pharmaceutical sector. The bulk drugs accounts for Rs 54 bn (21%), the remaining Rs 210 bn (79%) for formulations, imports were Rs 20 bn while exports were Rs87 bn in year 2002. There is huge expansion of Domestic Pharma sector which estimated US$ 11.72 billion (Rs 55454 crore) in 2008-09 from US$ 6.88 billion (Rs 32575 crore) in 2003-04. India exports its Pharma Products to various countries around the globe including highly regulated markets of USA, Europe, Japan and Australia.

1.1.16 Top Leading Companies

Table 1.3: Top 9 Publicly Listed Pharmaceutical Companies in India By Market Capitalization, 2015

Rank	Company	Market Capitalisation as in 2015 (INR in crores)
1	Sun Pharmaceuticals	2,17,636
2	Lupin Ltd.	84,193
3	Dr.Reddy's Laboratory's	63,779
4	Cipla	52,081
5	Aurbindo Pharma	42,454
6	Cadila	38,677
7	Glenmark Pharmaceuticals	26,026
8	Divi's Laboratories	24,847
9		22,774

Pharmaceutical Companies Operating in Lucknow

Apart from the major pharmaceutical companies having their distribution and customer sales networks in the city there are some pharmaceutical companies that ha

ve their production facilities in Lucknow. Some of these are:

Table 1.4: Some of the Pharmaceutical Companies of Lucknow

Sr.No	Company Name
1	A D Pharmaceuticals
2	Agro Pharmaceuticals India
3	Albert David Ltd
4	Analytical Testing Corporation,
5	Aristo Pharmaceuticals Ltd
6	Aroma Chemicals
7	Arpike Pvt. Ltd.
8	Ascho Analytical Services
9	Aseptic Pharmaceuticals Pvt Ltd
10	Atul Pharma Medical
11	Bharat Chemical and Pharmaceuticals Laboratories
12	Bharat Homoeo Laboratories,
13	Bio Chem Pharmaceutical Industries
14	U P Drug House Pvt Ltd
15	Suntech Medical System Pvt. Ltd.
16	G.Praxen & Co. P.Ltd.
17	Galaxy Surgicals,
18	General Pharmaceutical & Chemical Works
19	Geson Pharma,
20	Global Formulations
21	Golike Hamjoli
22	Hahnemann Memorial Laboratory
23	Hahnemann Research Lab (India)
24	Harsh Lab
25	Heartlobe homoeopathic laboratories

26	Hindustan Laboratories	
27	India Pesticides ltd.	
28	Indian Chemicals P. Ltd.	
29	Indian Petroleum and Chemical Industries	
30	Ipca Lab Ltd	
31	Klick Organics P. Ltd.	
32	Krishna Chemicals	
33	L.R.P. Drugs & Chemicals	
34	Laxmi Traders,	
35	Lljk Pharmaceuticals Pvt Ltd	
36	Lucknow Organics P. Ltd.	
37	Magrita Pharma P.Ltd.	

Source : www.pharmatips.c

1.1.17 People Challenges

Pharma industry has always invested in people development. The skew has been towards technical and product training. There is a growing emphasis on managerial & business skills. Industry is facing severe attrition and losing out to sectors such as BPO.The problem is exacerbated by an inadequate supply of skilled talent, as B.Sc & B.Pharma programs are not aligned to industry needs.

One of the big challenges is to develop leadership skills as people grow in their career path from medical representatives to field managers to further growth. Executive image and professional demeanour is a critical aspect of this growth. While several global conglomerates do a lot of sales training, there is a need to address the advice-giving selling approach for institutions and sales presentation skills while selling to doctors. Also one of the common concerns that Pharma Industry faces is sales force supervision including business development, territory management and performance through remote teams.

1.1.18 Skills Inventory:

In view of the industry trends and people challenges, the people and business skills appear to be:

i. Leadership for new managers as well as middle to senior managers.

ii. Robust in house trainers and training quality for technical training.

iii. Consultative & institutional selling.

iv.   Presentation skills (one-to-one, MR to senior doctors)

v.   Time Management

vi.   Business Etiquette & Executive Image for junior levels.

vii.   Communication & team management for middle and senior levels.

viii.   Innovation

1.2 Pharmaceutical Marketing

The management process through which goods and services move from concept to the customer. It includes the coordination of four elements called the 4 P's of marketing:

i.   identification, selection and development of a product,

ii.   determination of its price,

iii.   selection of a distribution channel to reach the customer's place, and

iv.   Development and implementation of a promotional strategy.

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Marketing is based on thinking about the business in terms of customer needs and their satisfaction. Marketing differs from selling because. Selling concerns itself with the tricks and techniques of getting people to exchange their cash for your product. It is not concerned with the values that the exchange is all about. And it does not, as marketing invariable does, view the entire business process as consisting of a tightly integrated effort to discover, create, arouse and satisfy customer needs. In other words, marketing has less to do

with getting customers to pay for your product as it does developing a demand for that product and fulfilling the customer's needs.

To many businesses, marketing can seem like a mystery. It is often complicated and confusing to many individuals. There are far too many marketing professionals who are hung up on just one or two specific aspects of marketing. These usually have little or no impact on the end result.

i. Know the consumer. Get to know your market as if it were a person. What motivates that person to buy the product .How old is the average person buying from us? What gender are they? Where do they live? What kinds of jobs do they have and what is their income? The more information about market, the better the company is able to target your message effectively.

ii. Target the message to the appropriate audience: who are the people whom we aim to address identify such audience

iii. Time the message appropriately. We can have a great marketing message, but our market will not be interested if it does not reach them at the right time. Think about certain times of the year that your product or service can be advertised aggressively.

iv. Have the right offer. We have to test our have to test your offers and have to find the right offer that will beat all your other offers, and then turn around and test it again. In this way the results will be refined for the better on a continual basis.

v. Use your knowledge of market to create a message that hits them in the core. The message will resonate with their hearts. It will address the needs and service or product will differentiate you from competitors. Be sure to stress benefits over features

1.2.1 Pharmaceutical Marketing Concept

In general, marketing aims at satisfying the customers' needs. Basically, pharmaceutical marketing is no different. However, look closely and you will realise that it is indeed unique. Pharmaceutical marketing also called medico-marketing, Pharma marketing in some countries is the business of advertising or endorsing the sale of pharmaceuticals or drugs. Many countries have means in place to limit advertising by pharmaceutical companies.

Pharmaceutical products are difficult to manufacture, requiring sophisticated machinery and processes to meet the exacting standards laid down by regulatory authorities. However, the customer will not buy the product for this reason alone. As with any other product, the purchase is affected only when the customer believes the product will be of some use to him. Thus, as is the case with marketing in general, pharmaceutical marketing is aimed at fulfilling the customers' needs.

Pharmaceutical marketing is the last element of an information continuum, where research concepts are transformed into practical therapeutic tools and where information is progressively layered and made more useful to the health care system. Thus, transfer of information to physicians through marketing is a crucial element of pharmaceutical innovation. By providing an informed choice of carefully characterized agents, marketing assists physicians in matching drug therapy to individual patient needs. Pharmaceutical marketing is presently the most organized and comprehensive information system for updating physicians about the availability, safety, efficacy, hazards, and

techniques of using medicines. The costs of pharmaceutical marketing are substantial, but they are typical of high-technology industries that must communicate important and complex information to sophisticated users. These costs are offset by savings resulting from proper use of medicines and from lower drug costs owing to price competition.

While many pharmaceutical companies have successfully deployed a plethora of strategies to target the various customer types, recent business and customer trends are creating new challenges and opportunities for increasing profitability. In the pharmaceutical and healthcare industries, a complex web of decision-makers determines the nature of the transaction through prescription for which direct customer of pharmaceutical industry or a doctor is responsible. Essentially, the end-user or patient consumes a product and pays the cost.

One role of pharmaceutical companies is to provide information about their medicines to health care professionals. This interaction between pharmaceutical representatives and health care professionals is important. Without it, health care professionals would be less likely to have the latest, accurate information available regarding prescription medicines, which play an increasing role in effective health care. Direct communication between health care professionals and pharmaceutical research companies is a part of the companies' mission of developing medicines that patients use to live longer, healthier, and more productive lives. This communication enables pharmaceutical companies to inform physicians about the benefits and risks of their products, provide scientific and educational information about their use, and obtain information and advice about their medicines.

The   average patient is unable to select a treatment for his ailment because he may not know enough to make the right choice. Medical science is obviously very vast. Thus, the doctor being an expert is involved in the process. The doctor decides upon the appropriate treatment. The patient may be the purchaser of the pharmaceutical product, but the doctor as the decision maker, is the main customer for the pharmaceutical marketeer.Medicine has many branches, each of which being extensive enough to justify specialisation and super-specialisation among doctors. Documentation on subjects ranging from anatomy to pathology and pharmacology is spread over numerous books and journals, and is being constantly updated. Terminology is specific and evaluation of drug efficacy is governed by well-defined criteria. Thus, the key to getting on the right wavelength with your customer is to talk the doctor's language. A good medical knowledge and the use of the right terminology will be your starting point. Substantiating your claims with proof from medical literature will help to keep you a step ahead.

1.2.2 Pharmaceutical Marketing in India

Marketing always starts with the customer and ends with the customer as they are the valuable assets for the country. Marketing is a business activity by which it means the flow of goods and products from the manufacturer to the customer. *According to Philip Kotler* who is known as the" Father of Marketing" defines marketing as "*A social and Management process by which individuals and groups obtain what they need and want through creating, offering and exchanging products of value with others" is known as marketing. Pharmaceutical marketing is a well organized information system*. It helps the physicians to update about accessibility safety, effectiveness and techniques of consuming the

medicine. The Indian pharmaceutical industry has been gaining momentum in the recent years and is expected to move towards an upward trend. According to Mckinsey & Company report, the Indian pharmaceutical market will reach greater heights by the year 2020. Pharmaceutical marketing costs are phenomenal. The end users must have awareness about these high technology industries. Complex information must be communicated properly. Proper use of medicines will enable the companies to cut down their costs which in turn help to increase their profits. This paper gives an insight about the evolution of Indian pharmaceutical markets, its need and characteristics. It also highlights the present scenario, future prospects, challenges and the strategies to be adopted by the Indian pharmaceutical companies.

1.2.3 Need for Pharmaceutical Marketing

India is emerging as the global hub for contract research and manufacturing services due to its low cost advantage and world class quality standards. The introduction of product patent in India has brought some fundamental changes in strategies of Indian pharmaceutical companies, with focus shifting more towards Research and Development. The major revenue to the Indian pharmaceutical industry has been gained through exports. India pharmaceutical products are exporting to more than 200 countries around the world.

1.2.4 Significance of Pharmaceutical Marketing

The scientifically-based information conveyed by pharmaceutical company representatives to physicians helps disseminate knowledge about medicines. Providing physicians with up-to-date information about pharmaceutical products supports appropriate care decisions and can lead to better health outcomes. Bringing information about new treatments into the health care system often is challenging and requires significant effort. Even many years after new types of medicines are introduced, a large share of patients who should be using them according to clinical practice guidelines go untreated. In fact, these treatment gaps are often viewed as serious public health problems that lead to poor patient outcomes and high health costs—both human and economic—that could have been avoided.

Pharmaceutical representatives also provide physicians and other health care professionals with information about new studies and clinical data, new dosing information, and updates on safety and risk information. Timely access to this information helps support effective patient care, and pharmaceutical representatives disseminate it to health care providers. Prescription Marketing Helps Addresses Treatment Gaps. While pharmaceutical marketing often is viewed as leading to overuse of medicines, data across scores of peer reviewed studies demonstrates that medicines used to treat many conditions are far more likely to be underused than overused. Pharmaceutical marketing can play a role in raising awareness of the need for treatment and helping patients get the treatment they need.

The gap between necessary care and the care patients actually obtain indicates that new medicines cannot be expected to enter into appropriate use based solely on the clinical evidence supporting them. In the absence of active dissemination of information about medicines to both physicians and consumers, the gap would likely be even larger.

Pharmaceutical marketing and promotion provides value to physicians by providing scientific information about new medicines. However, marketing of new medicines by pharmaceutical companies is only one factor considered by physicians. This marketing does not exist in a vacuum—physicians' judgment and experience, many other sources of information all play a large role in determining what, if any, medicine a patient receives. While pharmaceutical marketing is far from the sole source of information for physicians, it plays an important role in providing information about brand medicines and helps balance other factors that emphasize promoting older treatments and that reduce use of needed medicines.

Marketing of prescription pharmaceuticals through mass media is not permissible, and in any case, would be inappropriate for many products. One-to-one communication to doctors is the norm. For this, a pharmaceutical company needs many field staff to regularly meet prospective and existing customers and promote the company's products. In this, the principles of salesmanship remain largely the same as elsewhere. Thus

the company's field representative becomes the chief link between the company and the doctor, often being described as the company's "ambassador" in the field.

With about 60,000 pharmaceutical formulations available in India compared to less than 4,000 in some developed countries, pharmaceutical marketing in India is a highly competitive business. An important doctor may meet fifteen medical representatives, each discussing four or more products, in a single day. In this scenario, getting the doctor to remember - let alone prescribe - your product, can be difficult.

Much has been said about the effects of patent protection on the Indian pharmaceutical industry. The imposition of patent laws will obviously place an emphasis on drug research and will spell the end of the present flood of me-too products. Indian companies must work with increased R&D budgets, look for collaborations or simply build strong off-patent brands. Therefore Pharmaceutical marketing helps:

  i.   To maintain a healthy competition

 ii.   To augment the customer knowledge

iii.   To have a better customer link

 iv.   To reduce the initial growth costs

Table 1.5: Comparison between Pharmaceutical and FMCG product marketing

Pharmaceutical Marketing	Other Marketing
It is the field of science which links the health sciences to ensure safe and effective medicinal products to the patients.	Other kind of marketing deals with consumer day to day routines (eg: Toothpaste, home appliances etc)
It is highly regulated market. Regulated by national regulatory laws and authority in order to ensure specified quality & standards of particular products (eg: FDA, GMP etc)	These are not regulated. There are no regulation apply in manufacturing, supply or use of the products
Pharmaceutical goods are sold only on retail drug stores (Pharmacy) by a qualified registered pharmacist as prescribed by the Doctor	Available on the every general stores and shops can be sold purchased by any consumer without any interference of any authority
The concept of Consumer and customer is different, In case of Prescription drugs the doctors are the actual customer and the patient is consumer as the sale of drug is affected only by the prescription of doctors. In OTC (Non prescription) drug the patient is the customer as there is no prescription from the doctor	The buyer has freedom to purchase and to consume the product. There is no difference between customer and consumer.
Price of the Pharmaceutical products are regulated by NPPA(National Pharmaceutical Pricing Authority) and DPCO (Drug Price Control Order)	No Price regulation
The promotion cannot be done on social media like TV, Radio and public places. It is carried through Direct marketing by the medical Reps to the Doctors. But OTC products can be advertised on social media.	No regulation of advertisement, But some basic guidelines should be followed as per the National Advertisement Act.

Source: http://www.pharmainfo.net/book/pharmaceutical-marketing-practices-india

Market Challenges faced by Indian Pharmaceutical Companies

Leading Indian players continue to exhibit strong profitability indicators (excluding one-time instances like exclusivity-related aberrations or impact of foreign exchange fluctuations) despite challenges. Their strengths are also reflected in their strong credit profile. Many Pharmaceutical companies have deployed strategies to target the various customer types, recent business and customer trends are creating new challenges and opportunities for increasing profitability. In order to avoid the production decline faced by the companies, the shareholders, markets and regulators should create a significant pressure for change within the industry. Leaders of the largest global pharmaceutical companies recognize the need for transformational change in their organizations, and the need to move swiftly to ensure sustainable growth. The challenges of Indian Pharma industry are:

i.   Effects of new product patent

ii. Price control of drugs

iii. Reformation in the regulatory laws

iv. Development of infrastructure

v.   Concept of Quality Management

vi. Conforming to the global standards and practices

1.2.5 Sales Models in Indian Pharmaceutical Industry

The pharmaceutical industry has been using various sales models in order to adapt its sales force as per its needs over the decades. The various sales models that have emerged as important to the growth of this industry in India are:

i. **KAM:** KAM or Key Account Management means far more than just selling products to big customers. It revolves around handling the customers who play a strategic role in the growth of a supplier. It would be easy to assume that these are just the huge accounts. The ones that will bring in the largest profit, but KAM involve a wide range of accounts: big and small, interested and indifferent. The one thing these accounts have in common is that they are all critical to the growth of the supplier.

ii. **CLM:** Closed loop marketing (CLM) is the process by which a pharmaceutical company develops marketing strategies and deploys them through one or more channels to reach their customers and gain a sound understanding of what happens in the marketplace. Through this it is being able to understand what works and what does not work. It enables to understand objective data and refine the processes in a closed loop format so over time company can continue to improve effectiveness both in marketing and sales. It is a new approach to pharmaceutical sales and marketing, Closed Loop Marketing redefines the interaction between sales representatives and physicians. The tools that are part of Closed Loop Marketing give sales representatives access to accurate, up-to-date data about a physician before each visit, allowing them to tailor product information to match each physician's patient profile and interests. Using Closed Loop Marketing, sales representatives can automatically feed data about each physician interaction directly to brand teams through a central sales portal, giving the brand team information required to refine marketing and strategy.

iii. **CSO:** CSO is the acronym for Contract Service Organization, commonly used to refer to the outsourcing of tasks within the pharmaceutical, biotechnology and medical

devices industries. A typical CSO company is one that helps companies in the pharmaceutical arena augment their sales growth through effective sales and marketing solutions. Pharmaceutical companies partner with CSO companies so that they may focus their energies on their core businesses.

iv. **SBU:** A strategic business unit or SBU operates as an independent entity, but it has to report directly to the headquarters of the organisation about the status of its operation. It operates independently and is focused on a target market. It is big enough to have its own support functions such as HR, training departments etc. There are several benefits of having an SBU. This principle works best for organisations which have multiple product structure.

A large pharmaceutical company in India is usually divided into strategic business units (SBUs) based on therapeutic areas like cardiology, urology etc. Sales force is structured under each therapeutic area and managed by a national sales manager.
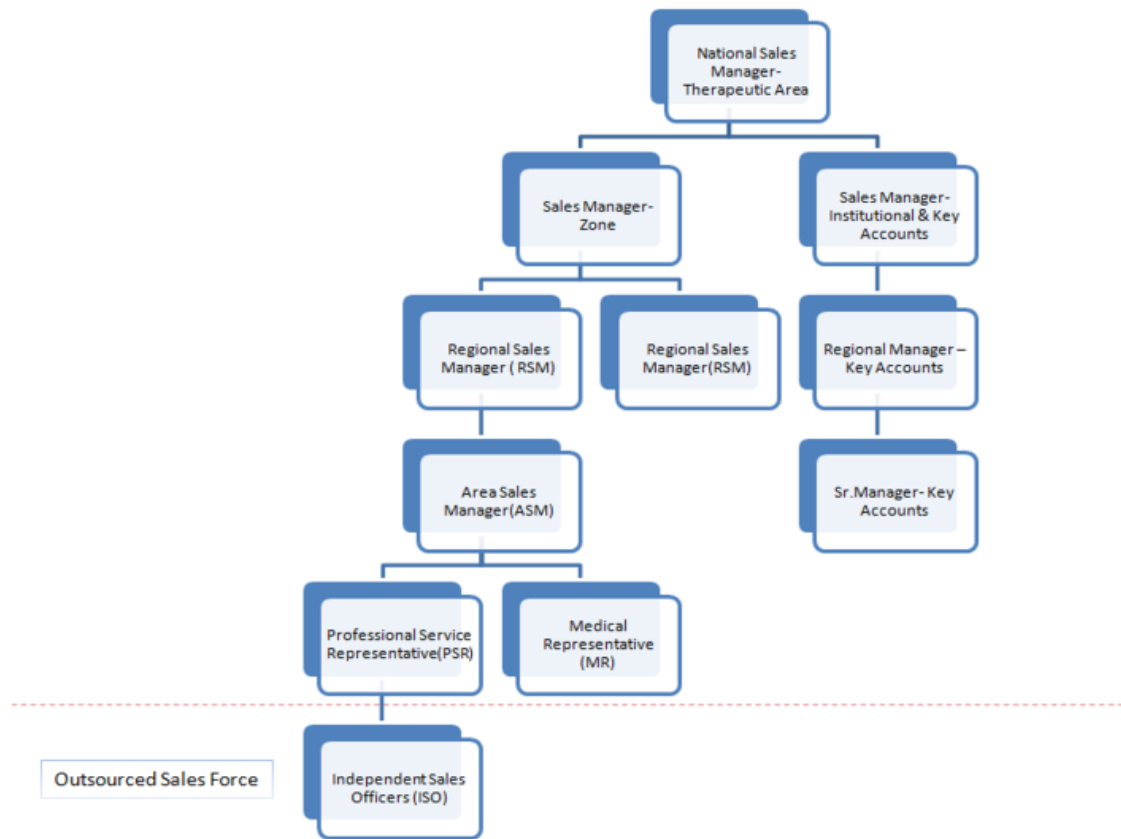
Fig1.2: Typical Pharmaceutical Sales Force Structure in India

1.2.6 Segments of Pharmaceutical Marketing in India

The pharmaceutical industry can be majorly divided into three basic segments namely:

i.   **Generic drugs:** According to US Food and Drugs Authority, generic drug is identical

-- or bioequivalent -- to a brand name drug in dosage form, safety, strength, route of

administration, quality, performance characteristics and intended use. Although generic drugs are chemically identical to their branded counterparts, they are typically sold at substantial discounts from the branded price. For Example: metformin , paracetamol, metoprolol etc

ii. **Brand medication:** Also called brand name drug is that which has a trade name and is protected by a patent .It can be produced only by the company holding the patent. For Example**:** glucophage , lopressor etc

iii. **Speciality drugs:** These are often drugs derived from living cells or biologics and may be inject able or infused although some are oral drugs. These are high complexity and high cost drugs that may be used to treat HIV, haemophilia, cancer, rheumatic arthritis, Hepatitis C.
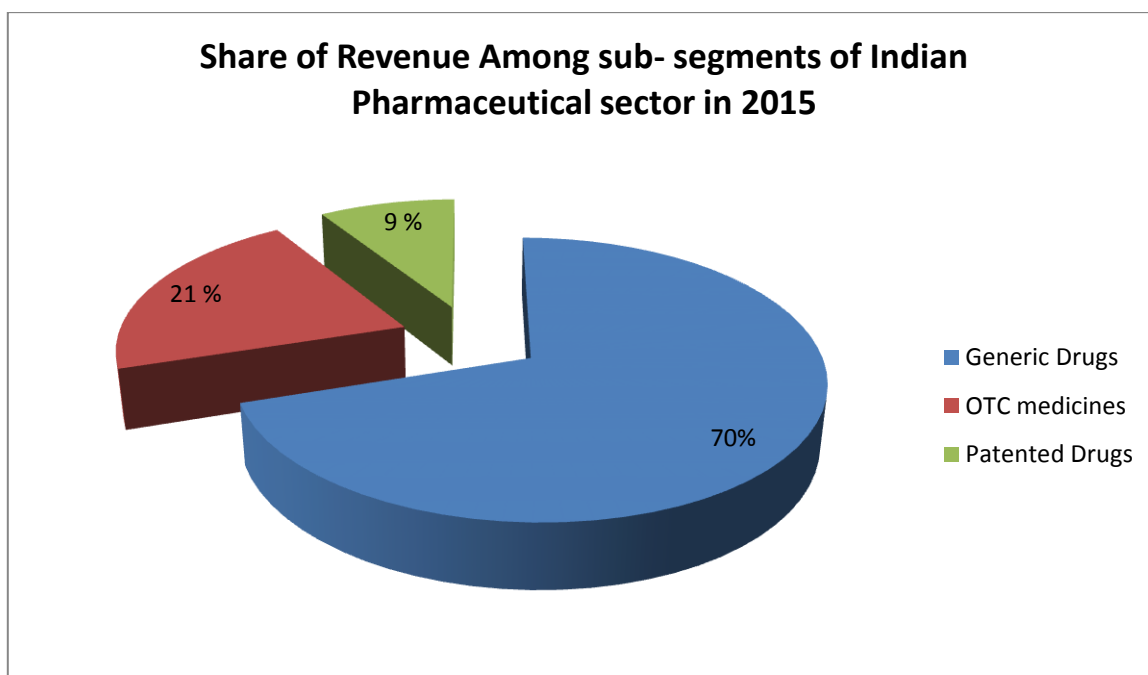
Share of Revenue Among sub- segments of Indian Pharmaceutical sector in 2015

9 %
21 %
70%

- Generic Drugs
- OTC medicines
- Patented Drugs

i.   Generic drugs form the largest segment having 70 per cent of market share (revenues), generic drugs form the largest segment of the Indian pharmaceutical sector.

ii. India supplies 20 per cent of global generic medicines to international markets in terms of exports volume, making the country the largest provider of generic medicines globally and expected to expand even further in coming years

iii. Over the Counter (OTC) medicines and patented drugs constitute 21 per cent and 9 per cent, respectively, of total market revenues of US$ 20 billion

1.2.7 Regulatory & Policy Framework of Pharmaceutical Sector in India

The pharmaceutical industry is an important source of health care for billions of population globally and in India. Hence, it is supposed to be a highly regulated sector. The pharmaceutical industry is influenced by a host of practices which may primarily relate to price regulations, insurance, drug procurement by government agencies, nexus among players in the pharmaceutical industry and service providers, patent laws, safety policies, drug regulation, drug promotion regulation, drug advertising regulation, etc. The regulatory mechanism plays a crucial role and has to work with all such diverse set of laws, polices and regulation governing the pharmaceutical sector.

In India, the drug manufacturers and exporters not only need to adhere to the standards imposed by the Drug Controller General of India (DCGI) but also standards set by the Drug Regulators of the countries to which the product is being exported. The regime of compliance is becoming stronger as regulators look for greater compliance from the industry given the mounting consumer pressures, and increasing healthcare standards. In addition, regulatory authorities are increasing the scrutiny related to patient safety and compliance. The main regulatory body in India is the Central Drug Standard Control Organisation (CDSCO) under the Ministry of Health and Family Welfare (MoHFW). The CDSCO prescribe standards and measures for ensuring the safety, efficacy and quality of drugs, cosmetics, diagnostics and devices in the country and regulates the market authorisation of new drugs and clinical trials standards. It is responsible for the approval of licence of drugs at both Central and state levels. CDSCO is presided over by the DCGI. The National Pharmaceutical Pricing Authority (NPPA) is responsible for fixing the prices of bulk and formulation of drugs within the National List of Essential Medicines (NLEM) under the Essential Commodities Act. It periodically updates the list under price control through inclusion and exclusion of certain drugs in accordance with established guidelines. Along with the Health Ministry, the policy issues associated with the sector are looked upon by Department of Pharmaceuticals (DoP) formed in 2008 under the Ministry of Chemicals and Fertilisers. The MoHFW examines pharmaceutical issues within the larger context of public health while the focus of the DoP is on industrial policy. The department give greater focus and thrust on the development of pharmaceutical sector in the country and to regulate various complex issues related to pricing and availability of medicines at affordable prices, R&D, protection of IPRs with DIPP and international commitments related to pharmaceutical sector which require integration of work with other ministries. All drugs and pharmaceuticals, unless specifically

allotted to any other department, would come under the purview of the DoP. However, other government department and ministries also play a role in the regulation process. These include:

i.   Ministry of Environment & Forests

ii. Ministry of Commerce & Industry

iii. Ministry of Science & Technology

iv. Ministry of Corporate Affairs etc.

Drugs and Cosmetics Act, 1940 is the law which regulates the import, manufacture, distribution and sale of drugs and cosmetics in this country. The Drugs and Cosmetics Act, 1940 and Drug and Cosmetic Rules, 1945 have elaborate provisions to check the production of spurious and substandard drugs in the country. The Act provides elaborate definitions of the term spurious, adulterated and misbranded drugs for the purpose of taking penal actions against the offenders. The Drugs and Cosmetics Act, 1940, has been recently amended under the Drugs and Cosmetics (Amendment) Act, 2008 providing very strict penalties for manufacture of spurious and adulterated drugs. India has a bifurcated or dual drug regulatory control at Central and state levels. The Central Regulatory Authority undertakes approval of new drugs, clinical trials, standards setting, control over imported drugs and coordination of state bodies' activities. State authorities assume responsibility for issuing licences and monitoring manufacture, distribution and sale of drugs and other related products.

The drug prices in India are controlled under the Drugs Prices Control Order (DPCO). The DPCO is an order issued by the government under Section 3 of the Essential Commodities Act, 1955 empowering it to fix and regulate the prices of essential bulk drugs and their formulations. The order has been revised several times since then. The order includes a list of bulk drugs whose prices are to be controlled, the procedure for fixation and revision of prices, the procedure for implementation and various other guidelines and directions. The order is subject to the guidelines of Drug Policy and supposedly aims to ensure equitable distribution, increased supply and cheap availability of bulk drugs.

1. 2.7.1 Patent Administration

India earlier had a product patent regime under the Patents and Designs Act 1911. However, in 1970, the government introduced the new Patents Act, reversing all previous legislations. With the changes brought about by the Patents Act of 1970, which provided only process patents for pharmaceutical products, Indian drug manufactures became experts in the field of reverse engineering and increased their production capability and the supply of less expensive generic drugs.

1.2.7.2 Drug Pricing

Since the evolution of the pharmaceutical industry, drug pricing in India is a huge issue. The high prices of drugs, access to medicines and procurement problems have made this issue even more crucial for the regulators. National Pharmaceuticals Pricing Authority (NPPA) apart from fixing the prices of some of the commonly used medicines is also entrusted and authorised to levy fines on companies, which sell the medicines at higher prices

than those fixed by NPPA. However from NPPA website, it is evident that NPPA has fined more than 300 companies but recovery of fine is incomplete. Irrespective of NPPA, we can easily find many of brand names being sold in the market at much higher prices than those fixed by NPPA.

1.2.8 OPPI Code of Pharmaceutical Marketing Practices

Organisation for Pharmaceutical Producers of India in 2012 imposed a code of Pharma Marketing Practices. The OPPI Code covers interactions with healthcare professionals, organizations/associations of healthcare professionals, medical institutions and patient organizations, and the promotion of pharmaceutical products. Where direct promotion to the public is allowed, this is covered by local laws, regulations and/or relevant codes of practice. Member companies should, of course, comply with these local laws, regulations and/or codes.

1. 2.8.1 Basis of Interaction with Healthcare Providers:

i. Member Companies' relationships with healthcare professionals are intended to benefit patients and to enhance the practice of medicine

ii. Material relating to pharmaceutical products and their uses, whether promotional in nature or not, should clearly indicate by whom it has been sponsored

iii. No financial benefit or benefit-in- kind may be provided or offered to a healthcare professional in exchange for prescribing, recommending, purchasing, supplying or administering products or for a commitment to continue to do so

iv. Promotion should encourage the appropriate use of pharmaceutical products by presenting them objectively and without exaggerating their properties.

v. In all cases, all relevant laws and regulations must be observed and companies have a responsibility to check requirements, in advance of preparing promotional material or events.

1.2.8.2 Pre-Approval Communications and Off-Label Use

No pharmaceutical product shall be promoted for use until the requisite approval for marketing for such use has been given.

1.2.8.3 Standards of Promotional Information

i. **Consistency of Product Information**: It is understood that national laws and regulations usually dictate the format and content of the product information communicated on labelling, packaging, leaflets, data sheets and in all promotional material. Promotion should not be inconsistent with approved product information. Healthcare professionals in India should have access to similar data to those being communicated by the same company in other countries.

ii. **Accurate and Not Misleading**: Promotional information should be clear, legible, accurate, balanced, fair, objective and sufficiently complete to enable the recipient to form his or her own opinion of the therapeutic value of the pharmaceutical product concerned. Promotional information should be based on an up-to-date evaluation of all relevant evidence and reflect that evidence clearly. It should not mislead by distortion, exaggeration, undue emphasis, omission or in any other way.

iii. **Substantiation:** Promotion should be capable of substantiation either by reference to the approved labelling or by scientific evidence. Such evidence

should be made available on request to healthcare professionals. Companies should deal objectively with requests for information made in good faith and should provide data which are appropriate to the source of the inquiry.

1.2.8.4 Printed Promotional Material

i. **All Printed Promotional Material, including Advertisements:** All printed promotional materials other than those covered in 5.2 below must be legible and include: the name of the product (normally the brand name); the active ingredients, using approved names where they exist; the name and address of the pharmaceutical company or its agent responsible for marketing the product; date of production of the advertisement; and "abbreviated prescribing information" which should include an approved indication or indications for use together with the dosage and method of use, and a succinct statement of the contraindications, precautions and side effects

ii. **Reminder Advertisements:** A "reminder" advertisement is defined as a short advertisement containing no more than the name of the product and a simple statement of indications to designate the therapeutic category of the product.

1.2.8.5 Electronic Materials, Including Audiovisuals:

The same requirements shall apply to electronic promotional materials as applied to printed materials. Specifically, in the case of pharmaceutical product related websites: the identity of the pharmaceutical company and of the intended audience should be readily

apparent; the content should be appropriate for the intended audience; the presentation (content, links, etc.) should be appropriate and apparent to the intended audience; and Information should comply with Drugs & Magic Remedies Act.

1.2.8.6 Interactions with Healthcare Professionals: Events and Meetings:

i. **Scientific and Educational Objectives:** The purpose and focus of all symposia, congresses and other promotional, scientific or professional meetings (an "Event") for healthcare professionals organised or sponsored by a company should be to inform healthcare professionals about products/therapy and/or to provide scientific or educational information.

ii. **Travel Facilities:** Member companies or their representatives shall not give any travel facility inside the country or outside, including rail, air, ship, cruise tickets, paid vacations, etc. to healthcare professionals for self and family members for vacation or for attending conferences, seminars, workshops, CME programme, etc. as a delegate.

iii. **Promotional Information at Events:** Promotional information which appears on exhibition stands or is distributed to participants at international scientific congresses and symposia may refer to pharmaceutical products which are not registered in the country where the Event takes place, or which are registered under different conditions, provided that the following conditions are observed: The meeting should be a truly international, scientific Event with a significant proportion of the speakers and attendees from countries other than the country where the Event takes place; Promotional material (excluding promotional aids) for a pharmaceutical product not registered in the country of the Event should be accompanied by a

suitable statement indicating the countries in which the product is registered and make clear that such product is not available locally; Promotional material which refers to the prescribing information (indications, warnings etc.) authorised in a country or countries other than that in which the Event takes place but where the product is also registered, should be accompanied by an explanatory statement indicating that registration conditions differ internationally; and An explanatory statement should identify the countries in which the product is registered and make it clear that it is not available locally.

iv. **Appropriate Venue**: All Events should be held in an appropriate venue that is conducive to the scientific or educational objectives and the purpose of the Event or meeting. The additional requirements set forth in Article 7 of this Code also apply accordingly.

v. **Affiliation:** Member companies may engage a medical practitioner in advisory capacities, as consultants, as researchers, as treating doctors or in any other professional capacity

vi. **Hospitality:** Member companies shall not provide any hospitality like hotel accommodation to healthcare professionals and family members under any pretext

vii. **Entertainment:** No entertainment or other leisure or social activities should be provided or paid for by member companies.

viii. **Sponsorships:** Member Companies may sponsor healthcare professionals who are affiliated consultants to attend events by signing appropriate agreements in accordance

ix. **Guests:** Companies should not pay any costs associated with individuals accompanying invited healthcare professionals.

x. **Engagement of Services from Healthcare Professionals**: Healthcare professionals may be engaged as consultants and advisors for services such as speaking at and/or chairing meetings and events, involvement in medical/scientific studies, clinical trials or training services, participation at advisory board meetings, and participation in market research where such participation involves remuneration.

1.2.8.7 Cash, Gifts and Promotional Aids

i. **Cash:** Member Companies shall not provide to a medical practitioner any cash or monetary grant for individual purpose in individual capacity under any pretext.

ii. **Gifts:** Member Companies or their sales people or representatives shall not provide any gift to a medical practitioner.

iii. **Promotional Aids:** Promotional aids or reminder items may be provided or offered to healthcare professionals and appropriate administrative staff, relevant to the practice of the healthcare professional.

1.2.8.8 Samples

i. **Samples Permitted:** In accordance with local laws and regulations, free samples of a pharmaceutical product may be supplied to healthcare professionals or to persons duly authorised by them who are qualified to prescribe such products in order to enhance patient care. Samples should not be resold or otherwise misused.

ii.   **Control and Accountability:** Companies should have adequate systems of control and accountability for samples provided to healthcare professionals including how to look after such samples whilst they are in possession of medical representatives.

1.2.8.9 Clinical Research and Transparency

i.   **Transparency:** Companies are committed to the transparency of clinical trials which they sponsor. It is recognized that there are important public health benefits associated with making clinical trial information more publicly available to healthcare practitioners, patients, and others. Such disclosure, however, must maintain protection for individual privacy, intellectual property and contract rights, as well as conform to legislation and current national practices in patent law.

ii.   **Distinction from Promotion:** All human subject research must have a legitimate scientific purpose. Human subject research, including clinical trials and observational studies, must not be carried out as a disguise for brand promotion.

1.2.8.10 Support for Continuing Medical Education

Continuing Medical Education (CME) helps ensure that healthcare professionals obtain the latest and most accurate information and insights on therapeutic areas and related interventions that are critical to the improvement of patient care and overall enhancement of the healthcare system. When companies provide content to CME activities and programs, such material must be fair, balanced and objective, and designed to allow the expression of diverse theories and recognized opinions. Content must consist of medical, scientific or other information that can contribute to enhancing patient care.

1.2.8.11 Company Procedures and Responsibilities:

i. **Procedures:** Companies should establish and maintain appropriate procedures to ensure compliance with relevant codes and applicable laws and to review and monitor all of their activities and materials in that regard.

ii. **Training:** Each member company shall provide to its employees and in particular the sales and marketing employees the training on this Code to ensure that they understand the procedure and their responsibilities and follow the guidance under this code while representing their employer company. The member companies shall maintain with them the record of such training provided to their respective employees.

iii. **Responsibilities for Approving Promotional Communications:** A designated company employee, with sufficient knowledge and appropriate qualifications should be responsible for approving all promotional communications. In the alternative, a senior company employee(s) could be made responsible provided that he or she receives scientific advice on such communications from adequately qualified scientific personnel.

1.2.9 Medical Representatives

Pharmaceutical sales representative are sales personnel employed by companies to persuade doctors to prescribe their drugs to patients *(Pharmaceutical Research and Manufacturers of America,1958 :PhaRMA ,1958)*. Companies spend a lot of financial resources sending representatives to doctors, to provide product information, answer questions on product use, and deliver product samples. Companies maintain this in order to

provide an educational service by keeping doctors updated on the latest changes in medical science. There is also a systematic use of gifts and personal information to befriend doctors to influence their drug prescriptions

In the field of medicine the Medical Representative is the qualified 'service provider, that keeps on servicing physicians running on the development' of the therapy. Without the Medical Representative's regular 'service', the entire medical profession would have lost knowledge of the pipeline of drugs. This gives a challenge to this profession. But many Medical Representatives are not aware of this role as a serviceman. They simply serve the doctor.

Medical Representatives increase drug sales by influencing physicians, and they do so with finely titrated professional skills. Medical Representatives are also trained to assess physicians' personalities, practice styles, preferences, and to relay this information back to the company. Personal information is also important like prescribing preferences. Medical Representatives are supposed to profile their physicians on family life, professional interests, and recreational pursuits etc. These are usually typed into a database for better servicing of Physicians. These databases are dynamic; the best Medical Representatives tailor their messages constantly according to their client's reaction. Physicians, who refuse to see Medical Representatives, are approached and detailed by innovative means and ways by the Medical Representatives. Gifts create both expectation and obligation. "The importance of developing loyalty through gifting cannot be overstated", writes Michael Oldani, an anthropologist and former Medical Representative. Pharmaceutical gifting, however, involves carefully calibrated generosity. Many prescribers receive pens, notepads and coffee mugs, all items kept close at hand, ensuring that a targeted drug's name stays uppermost in a physician's subconscious mind. Medical Representatives also service "thought leaders"

(physicians respected by their peers) for providing Continuing Medical Education. Such Physicians invited by a Medical Representatives to speak to their peers may increase their knowledge and skills and express their gratitude. Anything that improves the relationship between the Medical Representatives and the prescribers usually leads to improved market share. Pharmaceutical companies monitor the return on investment of detailing and all promotional efforts by prescription tracking information.

1.2.10 Role of Medical Representatives in Pharma Marketing

An important function of pharmaceutical companies is marketing of their products. Pharmaceutical marketing, sometimes called medico-marketing or pharma marketing in some countries is the business of advertising or otherwise promoting the sale of drugs (*PharMa 1958*). Pharmaceutical company spending on marketing far exceeds that spent on research. Since doctors make the selection of drugs specific ads targeting the medical professionals are thought to be cheaper and more effective. Marketing to health care providers takes four main forms: gifting, detailing, drug samples, and sponsoring Continuing Medical Education

Use of medical representatives for marketing products to physicians and to exert some influence over others in the hierarchy of decision makers has been a time-tested tradition. Typically, sales force expense comprises an estimated 15 percent to 20 percent of annual product revenues, the largest line item on the balance sheet. Despite this other expense, the industry is still plagued with some very serious strategic and operational level issues.

Pharmaceutical representatives work in the specialty sector by introducing doctors to medications and devices made by their employers. They often handle all aspects of sales to pharmacies, hospitals, long-term care homes and other organizations that purchase medical

equipment or medicines.A pharmaceutical representative deals with people who are very knowledgeable about the types of products they sell. Therefore, higher education in pharmacology, chemistry, or biology as well as an aptitude for learning and understanding technical detail are recommended for entering this field. Representatives must be able to understand and explain scientific reports such as medical studies and to answer questions posed by highly trained medical professionals.

Sales positions in the pharmaceutical industry can be very financially rewarding as profit margins on the products allow for generous commissions. Work hours are long, as pharmaceutical sales representatives often attend conferences and other events where they can meet potential customers.While new jobs are constantly created for pharmaceutical sales representatives due to the constant arrival of new medications and devices and the aging of America, cost-cutting in the healthcare industry forces representatives of drug and device manufacturers to work harder and face stronger competition. Doctors often work in group practices or follow insurance procedures that restrict them from prescribing expensive medications when cheaper alternatives are available. This means that some doctors are not even able to meet with representatives who cannot offer medications that will not be reimbursed or approved by insurance companies.

Nevertheless, the pharmaceutical sales field continues to provide opportunities for highly driven sales representatives who have excellent interpersonal skills and are able to understand and explain technical information on a professional level.Organisations have to replace an employee at one time or another during their course. While employee turnover may seem to be a minor hassle it can lead to many more than mere human resources related issues. Hiring and training a new employee can be very expensive, undermining profitability, so it's important to consider employee retention efforts to help curtail unseen costs that come with new employees.

1.2.11 Cost Variables Involved: The following cost variables are involved in training transfer

1.2.11.1 **Skill Sets**

Due to individual differences of the employees and differences in their skills and the required skill sets for their respective jobs the costs of training can vary. For example lower level workers can be trained quickly and frequently while the top managers take years of training to replace succeed their bosses due to the mere intricacy of their job and the decision making power that grows only with experience.

1.2.11.2 **Recruitment and Administrative Cost**

The different trainings required to bring an employee up to the level of the ones he is replacing also adds to the total cost of training apart from his recruitment and selection .On job trainings where workers work along with learning new skill sets is a cheap and affordable way of honing the workers skills whereas induction trainings spread over weeks to teach employees about their job and organisation before they start working prove to be more expensive as the employee is not adding value to the organisation. In addition to the employee's salaries the cost of off job courses and the trainer's remuneration adds to the cost of training.

1.2.11.3 **Costs against Earnings**

For any organisation it is easier to replace an employee than to train a new one because these costs vary as per the employee who is to be replacing .The cost of replacing a manager would be more than the cost of replacing a blue collar worker.

1.2.11.4 **Costs by Value**

The costs to replace an employee vary by their earning level, so training costs also vary.

1.2.12 Significance of Medical representatives

The word MR is stand for Medical representative. Almost each and every Pharma companies requires some professionals who are expert in communication skill and marketing strategies with militant nature Market competition is high so existing in market is very difficult and essential. MR is very bedazzling part of the industries as he is simply responsible for existence of company and its survival in market. Initial Payment is higher than other pharma protrusions. Starting of career is struggling but later he/she can engage to higher posts in ascending order like area sales manager, district sales manager, regional sales manager, zonal sales manager, sales manager etc. Growth of individual is depends on individual performance.

A medical representative is an important medium of communication with doctors as well as retailers. It is a dynamic activity and a live medium whose impact is more predictable and longer lasting. A medical representative plays a vital role by effectively translating a company's strategies into results in the market place. He is responsible for establishing company's product in the market .He takes appointment from doctors and has to make best use of the time they give him in promoting his product. He needs to decide how many products to promote at a time and which one to promote first. He needs to develop personal rapport with the doctors so that he can demand prescriptions. The job of medical

representatives needs commitment, energy and willingness to work hard. It is a proactive demanding role, not a passive accepting one.

1.3 Pharmaceutical Training and Development

A good training system provides the process for ensuring all employees receive adequate, relevant, and documented training to enable them to perform their assigned functions safely and in compliance with applicable guidelines/regulations *(Wexley & Latham, 2001)*.This guideline will outline practical training approaches to evaluate, establish and/or provide training industries. An evaluation should be made to verify all local or corporate standards are met concerning the program and outline provided. Here are some key points for quality pharmaceutical training:

i. Companies should organize their activities along functional lines with each department training its own members.

ii. There are two basic needs for training in pharmaceutical companies:

iii. Extend quality training to all departments.

iv. Perform specific departmental training in each functional area.

v. Quality training is required across the companies.

Incorporate quality-related concepts into all management training, and provide quality tools for other functional areas.

1.3.1 Training and Development in Pharmaceutical Industry

Trainings are provided with a view that the employees will be able to transfer the skills learnt to their workplace. Trainings cannot be carried out in vacuum as every organisation has certain work environment factors that have an impact on training (*Vasant T 2007*). Trainings need to be retained and maintained by the employees over time without which any training cannot be said to be effective. Effective managers need to provide effective trainings to the employees for maximising the resultant benefits to the organisation. Training effectiveness involve two important issues. Firstly, the employees have to learn the knowledge and skills imparted in training module and secondly they have to transfer these on the job and maintain this learning over a period of time. The transfer should result in improved performance on the job which is to say it should be relevant to the job, acquired and exhibited. Pharmaceutical Industry is one of the fast-growing industries .It is also one of the most competitive fields with the players constantly under pressure to

i. Develop newer products, and

ii. Market them successfully in shortest time possible

On the other hand, it is plagued by a very high attrition rate with the companies having to invest a lot in recruiting & training of employees. The problem is further compounded by the relative lack of facilities in the formal educational system to impart training to the potential employees in the areas such as Clinical Research and Pharmaceutical Salesmanship. The Marketing & Sales function in Pharma Industry is different from that in consumer goods or industrial products segment. The emphasis is on 'personal selling' as other methods like advertising, publicity and sales promotion activities have a relatively limited role to play.There are various reasons for this, such as:

i. Drugs & Cosmetics Act prohibits advertising of pharmaceutical products in mass media,

ii.   Customer base (Medical practitioners, stockists & retailers) is relatively small but spread over a large geographical area,

iii.   Complex nature of products requires optimum customer fit for products,

iv.   Past experience of communicating with customers through courier agencies delivering samples and literature has neither been successful nor cost-effective, and

v.   Competitors' activities almost always involve salespersons.

Personal selling, although expensive, is often indispensable due to increasing business competition and increasing sophistication of both customers as well as products in the pharmaceutical industry. In a highly competitive market, such as pharmaceutical industry, where many companies offer identical or related products, it is often the person behind these products who can makes the difference.

1.3.2 Types of Training in Pharmaceutical Industry

i.   **Orientation:** Orientation is a more formal program that follows induction and usually consists of familiarizing the employee with his work environment, the machines and equipment, and the job and tasks that the new employee is expected to perform. If the new employee makes mistakes, it is taken as a part of his learning process. Mistakes gradually reduce in frequency and magnitude and by the time orientation comes to an end.

ii. **Product training:** Product training or product knowledge is essential to be able to handle today's digitally connected customer who can gather all the information online and approach the sales persons with difficult questions. But with the knowledge of the product the employee develops his confidence, builds relationship with customers, is able to match the customer with the product suitable, make a better sales presentation and demonstration and successfully handle objections and also gain customer feedback later. This training may be provided by the in-house experts who have experience in selling same or similar products. The duration of this training varies from two to five days and may be continued as an understudy with a senior.

iii. **Market training:** Marketing training aims to enhance the skills of the employees to be able to present their products before the prospective buyers such that they would be encourage purchasing it. Marketing is defined as "the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large" according to the American Marketing Association.

iv. **Sales and non -sales activities:** Sales training is a part of marketing training which focuses on the actual exchange of goods for money taking place. *Sales training* involves the development of skills and techniques related to creating and exploring new sales opportunities, as well as closing sales for an organization. This is very essential for the pharmaceutical companies as for any other companies because the revenue is generated from sales of goods. The companies place focus on this so that the employees would be able to perform better and the company would generate

better revenues. Training is also provided for non sales activities such as customer service- "those activities that enhance or facilitate the sale and use of one's product and service". Stocking shelves, planning promotions, processing orders, delivering, handling complaints and generating sales inquiries and paperwork, including periodic reports.

v. **In-house Training:** As the term suggests it is training provided by people who work in the same organisation and have experience at times in the same position. Such training is very useful for the new incumbents as the experience of the trainer helps them gain confidence as well as the in –house trainers can relate their real life situations and give tips and share tricks of trade which could only be known by people with hands – on experience in the field of sales and marketing. Companies at times conduct their own "Train the Trainer" programme in order to groom their employees at various levels to train their juniors. These are great confidence booster to the employees as they can see an example of growth and career progression within the organisation when such training is conducted by a senior who has worked in the same position as them. Also for organisations it is cost effective than hiring an external consultant.

1.3.3 Training Needs of Medical representative

Training can help a Medical Representative (MR), whose work is largely independent of day-to-day supervision. A new MR would need to know that this is not just another job, but rather that the MR is an "ambassador" of the company, who can make or

break the company's fortunes in the territory. It would be a good idea to spell out what the job entails, career prospects and reward system. In other words, help the new recruit to clearly understand his role, and make him feel enthusiastic and proud of his new assignment. Key issues involved in training of MRs are:

i. **Scientific Knowledge:** For a worthwhile discussion with his customer, the doctor, a MR needs a good scientific knowledge. Sound product knowledge can be built on a good foundation involving basic anatomy, physiology and pharmacology. There would also need to be a detailed understanding of the diseases for which the product is indicated. A thorough knowledge of the product features and benefits. A knowledgeable MR would command more respect and is likely to be in a better position to communicate the product message or get feedback from the customer. He would be able to handle highly scientific material such as clinical reports and discuss relevant points with the doctor.

ii. **Market Information:** A load of scientific information alone will not deliver success at the market place. The dynamics of the market place, with an updated knowledge of the competition and competitors' strategies is a must. Only then will a clear idea about company's strategy fall into place.

iii. **Salesmanship**: To begin with, the MR should be clear about his own company's strategies for individual products. Good communication and selling skills can help to get the customer more interested in the MR's presentation, and with ever-increasing competition, salesmanship could be the key ingredient to help the MR get his product

remembered. But while knowing about various selling techniques does help, there is nothing to beat several sessions of good old detailing practice (role playing) as a rehearsal for the real thing.

iv. **Objection Handling:** An objection should be considered to be an opportunity to win over a doubtful or dissatisfied customer. It needs both, good product knowledge and salesmanship. Since objection handling is often considered to be the difficult part, if a MR can do this effectively, he is sure to be a winner.

v. **Updates:**Having participated in a training programme, the MR should be rearing to go. But training cannot be considered to be a one-time affair. The MR's skills will need to be refreshed and enhanced periodically

vi. **Medium of training:** Training is often associated with a classroom. However, training can also be imparted through quizzes, programmed instructions, films and multimedia presentations, among others. A good mix could make the learning process more interesting. Ideally, learning and development should be a part of the MR's work routine. Regular introspection, communication and feedback will help. The MR should be aware about the need to learn and can constantly be learning on the job. That's because the learning process is continuous, with every situation providing valuable experience.

1.3.4   Need for Training

Key reasons to impart training to new salespersons getting inducted in the company include to decreased turnover of people and increase in sales revenue. These trainings are aimed at enhancing long –term favourable and personal relationships with customers. They help in decreasing cost of both product by way of increasing demand and cost of training by way of reducing attrition. They are devised to enhance the morale of the employees and improve their time and territory efficiency. They are also used to obtain feedback from the salespersons by the company and provide inputs for innovation of new products. Training programs try to include the best possible techniques for imparting knowledge, skills, and correct attitudes to sales people. The most important aspects to considered are –

i.   **Motivation**: The program should stimulate the trainees to perform to their best ability and achieve personal and organizational goals.

ii.   **Purpose** : Both the trainer and the trainee must know the purpose of the training program

iii.   **Reinforcement** : People learn best when they are positively and quickly reinforced

iv.   **Participation**: Get the group involved in the learning activities and make it a two-way process.

v.   **Practice**: Difficult and new routines become easier with practice.

vi.   **Organizing for learning: By** organizing the learning process into a logical sequence, each successive learning experience can be built on preceding experiences.

The new recruit then should be able to integrate those experiences into a meaningful pattern of knowledge, skills and attitudes to perform in the field and generate

sales revenue. A well-planned training program should impart the following content for learning. There are two training strategies followed traditionally:

i. **In House Training: Traditionally**, the training was the responsibility of in-house experts and typically this approach included the training centralized at the head quarters .Sales specialists prepared the materials and conducted the classroom training as well as on-the-job training. However, this has its own disadvantages .Often the staff experts lack experience in realistic field-selling situations .May cost small firms too much money.

ii. **Outside Specialists**: Nowadays, there is a growing trend of out-sourcing the training activity to outside experts who often have greater experience and expertise in the area. Outside consultants may be entirely responsible for the training programs or brought to conduct specific sessions. Usually, these experts tailor their training inputs to match the specific needs of the Company or the industry. However, an outside specialist may be unfamiliar with a company's sales and marketing situation. Many companies place new sales personnel into the field after only a brief orientation. In this case the salesperson is expected to struggle and learn for him. **Benefits include -**

➢ Only those who stay with the company will undergo the more expensive training program at a later date

➢ The salesperson will have a better understanding and frame of reference for the material taught in the training sessions

iii. **E-learning:** This is a recent development in the field of training employed by the pharmaceutical companies in view of the changing market and technological needs

and acts as an aid to other forms of training strategies adopted. Dearth of instructors in the sector can be overcome as eLearning is an instructor-independent training format. Online courses can be created and updated quickly and training can remain in - sync with product launches of these companies. E- learning is highly flexible and provides value for money.

However, waiting to train a salesperson has disadvantages like putting the relationship with customers at risk and adversely affecting the sales revenue due to this most companies provide initial orientation so that a salesperson can function at minimum level in the field. Advanced training is added at a later time.

1. 3.5 Challenges of Training in Pharmaceutical Industry

Getting the employees with entry level job related talent is one of the issues concerning the industry. The issue assumes significance as companies are spending more time on training entry-level talent to make them job ready. At times, even after three-six months of training, skill gaps have been noted. In a country where graduates are passing out in greater numbers each year, companies say this has nothing to do with the numbers, but skill-sets. This has been more pronounced in sectors such as pharmaceuticals have also started facing a dearth of talent even as they chalk out their expansion plans. The situation has sprung up an opportunity for a new set of entrepreneurs to train students in specific skill-sets while they are still in college. However, with no real solution in sight, companies are left with no option but to invest large sums in training. Pharmaceutical company Lupin spends Rs. 25,000 on every employee. All good pharmaceutical companies are growing, so there is a big need for talent in this industry. Most large companies are in expansion mode and are setting up new plants. Being a research-intensive industry, there is a need for more

technically skilled and knowledge workers. India does not have a shortage of people. But there is an acute shortage of good, employable and industry-ready. Pharma companies historically have hired people from science and pharmacy backgrounds and less of engineers. On the supply side, the universities churn out a large number of graduates and post graduates in science and pharmacy but very few of them are employable. While the absolute numbers look encouraging, industry-ready candidates with the required life skills and technical competence are very low. Therefore, companies end up investing heavily in technical training and life skills centres almost like parallel universities to make already educated people industry ready.

1.3.6 Personal Selling Process

The sale of pharmaceutical products requires personal selling skills on part of the medical representatives. This process according to Garner (2004) includes, the steps in the personal selling process include:

- ❖ Prospecting in which the sales person identifies qualified potential customers,

- ❖ Pre-approach, in which the sales person learns as much as possible about a prospective customer before making a sales call,

- ❖ Approach, in which the sales person meets the customer for the first time.

- ❖ Presentation, in which the salesperson tells the "product story" to the buyer, highlighting customer benefits, Handling objections, in which the salesperson seeks out, clarifies, and overcomes customer objections to buying,

- ❖ Closing, in which the salesperson asks the customer for an order, and

- ❖ Follow-up, the last step in the selling process, in which the sales person follows up after the sale to ensure customer satisfaction and repeat business.

1.3.7   Training Cost in India

Indian organizations on average spent US $331 per employee on training and development in 2011, according to a study on learning and development trends in India, by the American Society for Training & Development (ASTD) and Harvard Business Publishing (HBP).The figure includes learning and development staff salaries, travel costs for L&D staff, administrative costs, non salary development costs, delivery costs (such as classroom facilities and online learning technology infrastructure), outsourced activities and tuition reimbursement.The survey was distributed among organizations with more than 1,000 employees. Forty-one organizations responded to the survey, with the responding organizations employing 27,394 employees on an average.

ATD's second investigation of the state of learning in India (the first was published in 2012), and a clearer picture of training activities and spending is beginning to emerge. The number of responding organizations has grown, and their familiarity and comfort with reporting the data has improved. For the 2014 report, 56 large organizations (on average, responding organizations employ 20,360 people) provided data on their learning activities in India for 2013. The average number of learning hours used per employee for organizations in India in 2013 was 31. Indian organizations on average spent 13,767 Rupees ($234) per employee on training and development in 2013, also a drop from the last report.

1.3.8 Training Transfer

The 'training transfer' means the effective and continuing application, by trainees to their jobs, of the knowledge and skills gained in training *(Wenzel, 2014).* Simply put it

means the acquisition of knowledge from training program by the trainees and its use on their job. There are two aspects to this:

i.   Trainees immediately apply all they learned in training to their jobs at least as well as they could demonstrate those skills at the end of the training program.

ii.   With practice on the job, the trainees' level of skill will increase

There are three types of Training Transfer situations that can occur:

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                        │  Training Transfer   │
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         ▼                        ▼                        ▼
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│ Positive transfer │   │ Negative Transfer │   │  Zero Transfer   │
└──────────────────┘   └──────────────────┘   └──────────────────┘
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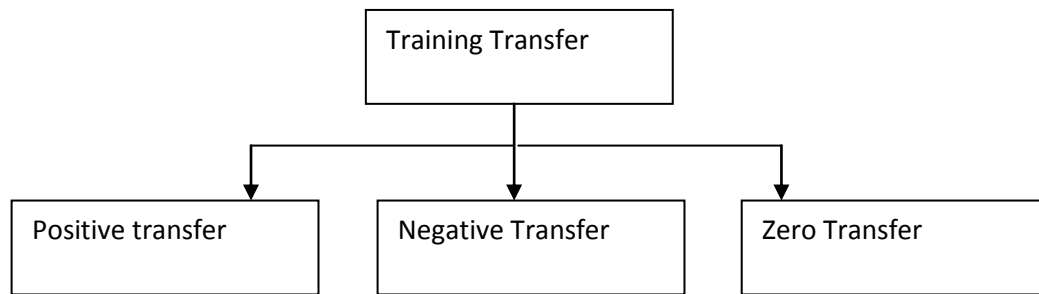
Fig1.4: Types of Training Transfer

i.   Positive Transfer: Refers to the situation where there is an evident positive change in the job performance of trainees after training.

ii.   Negative Transfer: Refers to situation where there is more confusions and problems evident in the job performance after the training received by trainees.

iii. Zero Transfer: Refers to the situation where there is no change in the job performance of the trainees after the training.

1.3.9   Significance of Training Transfer

Majorly training transfer studies have taken place in the U.S. in the year 2010 the American Society for Training and Development estimated that U.S. organizations spent about **$171.5 billion** on employee learning and development and **$1,228** per trainee but further delving into the returns research indicated that only about 10-20% of training is transferred into the workplace. When training does not transfer it is likely that company will question the benefit of investment in the training. Simply put time and money are both wasted.

With the increased austerity of resources there is greater focus on measuring and justifying investments on training. The use of effective transfer of training principles can help capitalize on the effectiveness of training programmes. It is fundamental to design and employ valuable training programs to help address the objectives of the company. It is also important to identify and rise above the factors that can hinder the transfer of training, such as lack of responsibility, scarce resources, and little opportunities to use information.

1.3.10 Training Transfer Studies in Different Areas

Distance Education in USA: In the study on Work Environment Factors Influencing the Transfer of Learning for Online Learners, *Gitonga JW (2006)* of University of Illinois at Urbana-Champaign concluded that the under study group of online learners had difficulty in transferring learned material from the program to their jobs due to lack of appropriate tools in their work environment since findings portrayed the availability of tools as critical. The graduates had difficulty in transferring learning due to low fidelity of the learning environment to the work environment, a notion evident from the graduates who experienced a work environment different from what they may have had while going through the Online program thus portraying a dissonance between the two environments. Online program graduates expressed the need for more material support (tools, resources,

technology) to facilitate their transfer process in addition to personal support (supervisor, communication).Hence work environment factors like technology and supervisor support were significant to their learning.

Government Trainings in Sri- Lanka: In their study Madagamage GT et al (2014) Factors Influencing Motivation to Transfer Training: An Empirical Study of a Government Sector Training Program in Sri Lanka noted that trainees' self efficacy has a significant impact on the motivation to transfer. Contrary to expectation, the other constructs did not significantly influence the motivation to transfer. Data were collected from 152 officers of the Sri Lanka Administrative Service who participated in a capacity building training program. The Structural Equation Modelling technique was used to test the hypotheses derived from the extensive literature survey.

Support Staff of Higher Education in Malaysia: In the study the Influence of Training Design on Training Transfer Performance among Support Staff of Higher Education Institution in Malaysia by *Suzana R et al (2011)* found that higher education institutions had conducted numerous studies to explore human resource management and professional development of staff personnel, however it neglects to investigate or adopt human resource development practices to their most important resource within their institutions that is their support staff. Their paper analysed from the perspective of the low training transfer activities among the supporting staff of public higher learning institution in Malaysia. The question underlying was the success of training transfer is the determinants of training inputs that will motivate the training to be transferred. From the results of this paper, training design, its content validity and transfer designs explain 65 percent of the training transfer. The paper confirmed the robustness of the third evaluation level of Kirkpatrick's model.

Education Sector in Indonesia: A study was conducted by *Chiou H et al (2010)* The Influences Transfer of Training on Relationship between Knowledge Characteristic of Work Design Model and Outcomes' in Indonesia .The purpose of this study was to examine the relationships among transfer of training, knowledge characteristic of work design and work outcomes. Transfer of training served as the predictor, but also the moderator to the prediction of knowledge characteristics towards outcome variables. Subjects of study were 252 teachers and administrative staff coming from various school levels. Results indicate that among the five-characteristics of knowledge, the variable specialization is positively correlated to outcome variables. Nevertheless, transfer of training positively predicted outcomes. These results suggest that in order to achieve satisfaction and performance, human resource practice agency should design training that gives trainees the ability to enhance knowledge and skill.

International Context: Training Design Factors Influencing Transfer of Training to the Workplace within an International Context undertaken by *Lim DH (2006)* of University of Tennessee, Knoxville, USA. Previously a number of research studies on transfer of training within an organisation have been conducted, but seldom found in international settings. In an effort to examine the effect of training design on the transfer of human resource development (HRD) training for a global company, a training project for a Korean organisation was studied. The focus of the study was to examine the learning, transfer, and reasons for impeding or facilitating the training transfer made by the HRD professionals of a Korean organisation. The researcher concluded that not all learning from any training programme can be expected to be transferred or applied to jobs and tasks for the trainees. This is especially true for the case of international transfer of training. To assure the

maximum transfer of a training programme several considerations must be made prior to and during the training programme. First, to make a good training design that accommodates the cross cultural training needs, thorough training needs assessment at the individual participant level seems important to ensure the success of training transfer as well as the quality of training. The cross-cultural training needs of the participant's level may vary from individual to individual. The more training satisfies the individual participant level cross-cultural training needs, the better the chances of the training transfer exist. Secondly, the use of diverse instructional methods is considered an important strategy for training design that leads to successful training transfer. By providing learning experiences in different ways, the trainees can master the training content conceptually and experientially. Diverse learning stimuli also help retention of the learning to a great degree. Thirdly, in the case of delivering training programmes for foreign students, the instructor's sensitivity to the cultural differences that students may experience during the instruction is an important factor for successful training. The course coordinator also plays a critical role in guiding the students' learning and application of the learning back to the jobs and tasks

Manufacturing organization in Australia: Edwards JS (2013) of Southern Cross University in his thesis Factors affecting training transfer in supervisors and hourly employees in a manufacturing organization. Results demonstrated statistically significant differences between supervisors and hourly employees in perceptions of positive personal outcomes and performance outcomes expectations, as well as in the work environment factors of supervisor support and supervisor sanctions. Interviews revealed that the organizational changes improved motivation to transfer training. This finding was supported by a 79% reduction in the OSHA reportable safety incidence rate. The study highlighted the importance of training transfer and motivation to transfer training, including important

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differences between supervisors and hourly employees as they grapple with organizational changes within a particular context of required safety training instituted by the company.

Garment Industry in Sri Lanka: The study undertaken by *Jayawardana AKL and Prasanna HAD (2007)* to study factors Affecting the Effectiveness of Training Provided to Merchandisers of Garment Industry in Sri Lanka concluded in findings that managers need to focus on creating and sustaining a continuous learning culture in their organizations, and provide the required support for employees in the acquisition and application of skills and knowledge in order to improve training effectiveness. This study attempted to identify the factors that influence training effectiveness of merchandisers of garment industry. Two hundred and eight (208) merchandisers from seven leading garment manufacturing organizations were involved in the study

Empirical Study of IT Enterprise Affecting Training Transfer in China: The study conducted by *Yan S (2012)* the study was done to explore the key factor of the primary staff training and migration of the IT industry. The greatest impact on training transfer factors included: the factors of personal characteristics, training design factors included training content and quality of teachers, as well as work to support and organizational support factors.

1.4 Work Environment Factors for Training Transfer

Work environment for training transfer refers to the factors that can influence training transfer in the organisation *(Leberman, 2006)* .Although there may be myriad factors but there are few factors that have a major influence on training transfer in every organisation irrespective of the industry or size of the organisation. The primary factors being: Supervisors, Trainers, Trainees, and Co-workers, Employees themselves. All must have a

strong interest in training initiatives, agree to work together to support the full application of the training on the job, and be committed to making the training investment pay off *(Holton III,2007 , LTSI)*.

i. **Climate for transfer** refers to trainees' perceptions about the extent to which the work environment supports or inhibits the .use of new knowledge, skills and behaviors. Factors include manager and peer support, opportunity to use new skills, and consequences for using new skills.

ii. **Manager support** is the degree to which trainees' managers (1) emphasize the importance of attending training programs and (2) stress the application of what is learned back on the job. The greater the managerial support, the more likely that new capabilities will be transferred. An action plan is a written document that details steps that the trainee and his/her manager will take to ensure transfer of the training content. It identifies the goal and strategies for reaching the goal, equipment and resources that will be provided to enable performance, support from managers and peers , expected outcomes, progress dates listed. Managers' support can be gained by briefing managers on the purpose of the training and its relationship to business strategy .Encouraging trainees to bring related work problems to the training. Sharing with manager's earlier trainees' testimonials regarding the benefits of the training course. Asking trainees to complete action plans with their managers and using managers as trainers, if possible.

iii. **Peer support** can also enhance the likelihood of transfer of training. A support network is a group of two or more trainees who meet and discuss their progress in using new capabilities back on the job, whether it be via face-to-face meetings, email, a newsletter, etc. Success stories as well as obstacles experienced can be shared.

iv. O**pportunity to use learned capabilities (or opportunity to perform)** is the extent to which the trainee is provided with or seeks out experience using the new knowledge, skills, or behaviours learned in the training program. Opportunity to perform is influenced by the work context, the motivation of the trainee to perform, and the trainee taking personal responsibility to actively pursue assignments that will utilize their new capabilities.

v. **Technological support:** these are the applications that can provide skills training, information access and expert advice. They can be used to enhance transfer of training by acting as an as-needed reference as trainees attempt to apply new knowledge, skills and behaviours

vi. **Organizational Environments** that encourage transfer in a learning organization there is an enhanced capacity to learn, adapt, and change. In a learning organization, training is an integral part of a system designed to create intellectual capital. Essential features of a learning organization include continuous learning among employees; knowledge generation and sharing; critical systematic thinking; a culture in which learning is rewarded, supported and promoted; encouragement of flexibility and experimentation; and the valuing of employees. In a learning organization, learning occurs at the individual, group and organizational levels. The learning organization emphasizes knowledge management. Knowledge management refers to the process

of enhancing company performance by designing and implementing tools, processes, systems, structures, and cultures to improve the creation, sharing, and use of knowledge.

1.4.1 Work Environment of Medical Representatives

The core to creating an effective work environment that promotes training transfer is motivation. *(Rothwell, 2000).* It includes the **c**reation of a vision and a clear career path. Promote a culture where every employee feels respected and valued. Support a workplace where employees can feel free to create a future for themselves and their families. Development of a system of rewards and acknowledgment to keep employees motivated.

Pharmaceutical marketing is a highly specialized field where medical representatives form the backbone of entire promotion effort. Pharmaceutical companies also appoint medical representatives and assign them defined territories. Medical representatives meet doctors, chemists and stockiest as per company norms. Their objective is to try to influence prescription pattern of doctors in favour of their brands. There have been various studies related to the medical representatives, their training and contribution to the pharmaceutical industry some of these are mentioned below:

Factors Associated with Physicians ' Reliance on Pharmaceutical Sales Representatives: Anderson BL et al (2009) published their paper on factors associated with the physicians' reliance on PSR. They concluded that Physicians' interactions with industry and their familiarity with guidelines vary by practice setting, perhaps because of more restrictive policies in university settings, professional isolation of private practice, or

differences in social norms. Prescribing samples may be associated with physicians' use of information from sales representatives more than is merited by the physicians' own beliefs about the value of pharmaceutical representatives.

A study on Training Requirements of Pharmaceutical Sales representatives with Special Reference to Erode District: This study by *Sultana MS et al (2010)* concluded that stress relief training and increasing the duration of the training were ranked at the first and second position as far as areas where training is required by Pharmaceutical Sales representatives. The study was done on 410 Pharmaceutical sales Representatives from erode district, and it was found that there is a need to improve the same.

*A Study on Job Induced Stress among Pharmaceutical Sales Representatives in Jaipur City of Rajasthan***:**The mentioned study was conducted by *Raizada H and Bhagwandas M (2012)* according to the study as the pharmaceutical industry is growing day by day the need for the Pharmaceutical Sales Representatives (PSRs) are also increasing simultaneously. The pressure of achieving targets is transforming the nature of job which eventually resulting into the Job Induced Stress (JIS) among PSRs.It was revealed that any development in professional practice of job need to be considered in the context of the well being of the PSRs who implement and are affected by the changes. Unless JIS for the PSRs is recognized and reduced they will remain on the brim of getting many health consequences.

Restoring professional pride to medical selling : Smarta RB (2012) published in his article that the Indian Pharma Industry has grown from a few crores at Independence to over ` 60000 crores today. But there is one person who, in this booming growth and dynamic environment, has experienced a decline in his professional stature – The Indian Pharma Medical Representative. With each passing year, his pride has ebbed and has reached low troughs. Today, the industry hardly attracts fresh science graduates and the attrition rate for

Pharma Medical representatives is very high. In order to take care of him and address attrition, it is essential to instil professional pride among those who are already engaged in this profession and also create a talent pool by demonstrating the professional pride of this profession to all engaged and potential Medical Representatives

Physicians-Pharmaceutical Sales Representatives Interactions and Conflict of Interest: Challenges and Solutions: In this commentary by *Patwardhan AR (2016)* it was noted that taking the specific case of physician-pharmaceutical sales representative (PSR) interactions, also called as detailing, where the PSRs lobby physicians to prescribe their brand drugs while bringing them gifts on the side. It was suggested that more attention should be given to understanding those problems of the physicians where Pharma Sale Representatives are adding value, albeit in exchange of favours. Probably the mid-career physicians suffer the most. They are in scarcity of ready-made up-to-date current usable information. They are neither fresh from the academy to know it all, nor well settled in practice yet to afford the luxury of time to acquire knowledge on their own.

1.4.2 Work Environment Factors Studies in other Areas

A case study of selected capacity building training courses in Western Australia: The study was undertaken by *Crisp J (2002)* under the title 'Exploration of factors affecting transfer of training into the workplace: A case study of selected capacity building training courses in Western Australia. The focus of this research was to explore factors affecting transfer of training into the workplace. Participants of a series of capacity building training courses run through the 'Natural Heritage Trust land care training coordination project' provided the basis for a case study in this area. The main conclusions from the study were that for this client group: the learning project process is a valuable part of training course design, facilitating transfer of training in a number of ways; there is scope for management to

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improve conditions for transfer of training; the need for reward and recognition, and preferred type of reward and recognition are wide-ranging individual trainee characteristics; the most widely desired reward is formal accreditation; there is scope to improve colleague support for increased transfer of training, and that confidence, motivation and opportunity to apply do not seem to be major limiting factors to transfer of training for this client group.

Training effectiveness in Banking Sector in Turkey: Yildirim O (2010) conducted the study aimed at indicating the factors having effect on the efficiency of the training received by the employees. The study was conducted on 57 employees of banking sector in which bank benefited extensively from training activities. In this study, survey method has been applied to all participants. Results showed that companies should consider factors affecting on the tasks for their staff while designing training programs in terms of effectiveness. Increasing effect of training and development programs and its direct relationship to employee performance lead organizations to enhance their current employees' training programs and to hire new ones with higher effectiveness.

Organisational Climate in Electronics company in Korea: The study was conducted by *Hyun YS (2007)* under the title 'The Effects of Organizational Climate on Training Transfer'. The purpose of this research is to investigate the effects of organizational climate on training transfer. The organizational climate included changeability of organization, openness to new trials, and organizational rewards for training transfer. And training transfer means for learner to utilize what they learned through training program after the program. The survey data for this research was collected from 465 trainees of a big company in Korea. The business of the company was electronics. According to the results of analyses, sub-variables of organizational climate were correlated with training transfer and showed the influential relationships with training transfer. So, it was confirmed that organizational climate had an effect on training transfer. In order to facilitate training

transfer, organizational change in culture and climate is necessary. So organization should make some systems and strategies to enhance organizational changeability. Training transfer can be facilitated by the means such as rewards for training transfer, supplements of equipments and facilities, allocation of jobs which are related with learning through training, and so on. Also, training transfer can be enforced by settling organizational culture and climate which allow employees for accepting and leading new changes. And the appropriate reward system and rewards for training transfer also are important factors for training transfer.

A study on factors influencing transfer of learning from training to workplace at a stock brokerage company in Delhi, India: The study was conducted by *Vijayran M (2012)* primary data has been collected from 50 individuals including branch managers and relationship managers of Organization "X", one of the stock brokerage companies. Various factors influencing training were analysed and the findings pointed out that there are some of the critical factors and conditions that positively influence the learning of the employees from training environment to workplace environment include:-

1) Relevance between training and job.

2) Clear expectations from the organizations for the application of knowledge and skills from training to the job of employees.

3) Training enhances motivation, willingness to change, commitment and ability of workforce

4) Assessment of performance based on the use of new knowledge skills.

5) Major factors negatively influencing transfer of learning include conditions:-

i. Where efforts to apply new knowledge and skills do not constitute performance appraisal.

ii.   Inadequate follow up, support and feedback to the trainees after the training.

iii.   Organization does not provide adequate support to utilize new knowledge

Work environment factors and transfer of training among plantation workers in Malaysia: The study was conducted by *Ling et al (2010).* In the study it was seen that training transfer is an essential aspect in determining the effectiveness of a training program. It is a loss of investment to an organization if there is a failure of transfer training to the job since the organization had invested considerable time and money on HRD programs. The study focused on identifying the relationship between work environment factors and transfer of training among plantation workers. Fifty respondents were involved in the research. Questionnaire was used as the instrument to collect the data. The findings showed that there was a weak but significantly relationship between opportunity to perform and transfer of training. Besides that, supervisor support also illustrated a low and significant relationship with transfer of training. However, the findings revealed that peer support did not significantly affect the transfer of training. On the other hand, the research also showed that the dominant work environment factor which affected transfer of training among the employees was opportunity to perform.

Although Pharmaceutical companies continue to spend large amounts of time and money to improve employees' performance, they need to show credible and sustainable methods for demonstrating the value of their training programs. This chapter focused on the pharmaceutical industry in India, need and types of training given in pharmaceutical marketing, training transfer and the work environment factors .This led to a literature review, which is included as Chapter.

CHAPTER II

REVIEW OF LITERATURE

Literatures related to the transfer of training and work environment reviewed are presented below in order to understand the related knowledge on the training transfer. This   chapter gives the details of the review of literature about training, conducting of training programs, and evaluation of trainings. It also focuses on transfer of training, factors

affecting transfer of training, barriers to transfer, indicators of effective transfer, general work environment and social impact of transfer through evaluation models for transfer.

2.1 Training

Cherrington (2003) differentiated training, development and education. Training is the acquisition of specific skills or knowledge, development is the improving of the intellectual or emotional abilities needed to do better job and education is something more general that attempts to provide student with general knowledge that can applied in many different settings. Training also can be defined as a planned learning experience for the acquisition of new knowledge, attitudes or skills (David, 1997, Campbell; 1970; Goldstein, 1980). On the other hand, training could be defined as the organized procedure by which people learn knowledge and/or skills for definite purpose with objective to achieve change in the behaviour of those trained.

i. **Training:** Training refers to the process of imparting specific skills. An employee undergoing training is presumed to have had some formal education. No training program is complete without an element of education. Hence we can say that Training is offered to operatives.

ii. **Education:** It is a theoretical learning in classrooms. The purpose of education is to teach theoretical concepts and develop a sense of reasoning and judgment. That any training and development program must contain an element of education is well

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understood by HR Specialists. Any such program has university professors as resource persons to enlighten participants about theoretical knowledge of the topics proposed to discuss. In fact organizations depute or encourage employees to do courses on part time basis. CEOs are known to attend refresher courses conducted by business schools. The education is more important for managers and executives rather than low cadre workers. Anyways education is common to all employees, their grades notwithstanding.

iii. **Development:** Development means those learning opportunities designed to help employees to grow. Development is not primarily skills oriented. Instead it provides the general knowledge and attitudes, which will be helpful to employers in higher positions. Efforts towards development often depend on personal drive and ambition. Development activities such as those supplied by management development programs are generally voluntary in nature. Development provides knowledge about business environment, management principles and techniques, human relations, specific industry analysis and the like is useful for better management of a company.

Training and education often occurs at the same time but education is thought of as being broader in scope- it is purpose to develop the individual, while training has a more immediate utilitarian purpose (Beach, 1985; David, 1997). There are many different kinds of training programs. The major ones include:

i. orienting and informing employees,

ii.   skill development,

iii.   refresher training,

iv.   professional and technical education and

v.   supervisory and managerial development

How much is transferred from training to the job? The 10% delusion as a catalyst for thinking about transfer: Ford J. K., et al (2011) studied the commonly held belief that only a small amount of what is trained is subsequently transferred to the job. A figure often referred to suggests that only 10% of training transfers. They examined the origins of, and evidence for, this 'sticky idea' and points out five questionable assumptions. They also reviewed the 'cautionary tale', namely that 62%, 44%, and 34% of a given training are transferred immediately after, six months after, and one year after the intervention. Overall the authors concluded a lack of empirical behavioural evidence supporting both these notions. While practitioners and researchers likely agree the transfer of training need to be improved, this paper requires them to be cautious of and to question all-inclusive statements that represent conventional wisdom.

2.1.1 Conducting Training Program

Many billion of dollars has been spent on training and corporate education. From a human performance technology perspective, training is appropriate for overcoming skills or knowledge gap. The question about why organizations go for training looks simple but actually this question needs complex answers. One of the obvious answers is to make

employees perform better in their jobs *(Stolovitch, 1992)*. Sadly most of the investment in organizational training is wasted because most of the knowledge and skills gained (well over 80% by some estimation) were not fully applied by the employees *(Stolovitch, 1992)*. *Stolovitch (1992)* studied the causes for the wasted training expenditures. Among the causes were:

   i.   poor selection of person to attend training,

  ii.   lack of clear expectations from supervisor,

 iii.   lack of on-job support, and

  iv.   lack of post- training monitoring, and

   v.   Lack of resources to implement the new skills

Some strategies to tackle the problem:

   i.   only provide training when a systemic front-end analysis has identified a performance gap whose cause is essentially a lack of,

  ii.   never provide training as single solution,

 iii.   train only those who will be able to apply the new skills or knowledge,

  iv.   prepare trainees for both training and post training transfer, and

   v.   ensure the post-training support

There are many steps that must be followed when an organization aims in conducting training programs. To ensure success, the need for training must be clearly identified.

Once needs are identified, clear objectives must be developed. These first two steps describe what the trainee will do, state the conditions under which they will do it, and establish criteria by which successful performance will be judged *(Molenda, 1999; Ridge, 2002).* Training objectives are often written to ensure performance in the classroom. Ideally, the objectives should address the performance expected in the workplace after the training had been carried out *(Ridge, 2002).*

Collaborative planning for training impact: Kraiger, K. et al (2004) in their paper the authors suggest a practical approach to planning training interventions so they more likely will have a significant impact on organisational goals and objectives. They have given a brief review of relevant models and soon provide guidance for training with business goals and planning the evaluation of impact. They offer and discuss four guidelines relating to: 1) developing a theory of impact, 2) reframing the point of evaluation from proof to evidence, 3) isolating the effects of training, and 4) establishing accountability for training

Improving training impact through effective follow-up: techniques and their application: Martin H. J (2010) in his paper describes cost-effective methods post training that create a more favourable environment for transfer. Briefly explained are 1) action plans, 2) performance assessment, 3) peer meetings, 4) supervisory consultations, and 5) technical support. The paper then illustrates the implementation of these techniques in two case studies: one case relates to a training program for managers of a manufacturing company, and the other case relates to supervisory training of a firm that supplies engineered products globally.

The six disciplines of breakthrough learning: How to turn training and development into business results : Pollock et al (2010) is one of the most well-known practitioner-oriented books about training effectiveness. For practitioners it brings together many of the most important principles, including the transfer of training. It goes about this via six key steps: 1) define the business outcomes, 2) design the complete experience, 3) deliver for application, 4) drive learning transfer, 5) deploy performance support, and 6) document results. Not every element discussed is based on evidence, though much reflects the state if research. This book may be considered the most inclusive realistic guide to improve training and ultimate transfer.

2.1.2   Training effectiveness

It refers to the extent to which a training program has been able to achieve its objectives it was set out to meet .Many training programs fail to deliver the expected organizational benefits due to lack of effective training. There are three basic ways to measure training effectiveness:

❖ **Visual Confirmation**: Through the use of technology a visual confirmation of the skills learnt by the employees can be taken .In the era of Technology the employees can be asked to make videos or give screenshots of what they have learnt. This process makes it easy for managers to understand the skills learnt and

skill deficit of the employees and they can plan further training and reinforcement measures.

- ❖ **Social Ownership**: From this we mean that once the training has been imparted to employees they should be in a position to pass it on to others. Mastery of the skills learnt can come not just from practice on the job but also through training others the same.

- ❖ **Skill Assessments**: The testing of skills of the employees before and after the training helps assess the skills learnt this can be visual through snapshots or through tests. This helps confirm the value addition provided by the training imparted without which it is futile to carry out such trainings.

A Qualitative Study of Training Effectiveness: This study by Dhal M (2014) Assistant Professor, Indian Institute of Management Kozhikode studied studies training experience and feedback of 51 participants from two training programmes by using grounded theory approach. The sample consists of 24 participants from government sector and 27 participants from a private firm who attended the training programme organised in an outsourced environment. This paper tried to explore the measures of effectiveness of training. It was also tried to investigate the difference between the measures and between the sectors. It was revealed that there were nine factors that define training effectiveness such as programme design, faculty/trainer, pedagogy, course content design, scheduling, non-academic infrastructural support, learning outcome, classroom environment, and programme objective are found to be vital and relevant factors which can influence the effectiveness of any training programme.

Effectiveness of training in organisations: A meta-analysis of Design and Evaluation Features: This meta-analytic study by *Arthur W. et al (2003)* assesses the empirical evidence linking training design and evaluation features to the effectiveness of training in organisations. From 162 studies it was estimated that in comparison with no-training or pre-training states, training had an overall positive effect on job-related behaviours or performance. Moreover, the analysis of 397 independent data points suggests that the training method used, the skill or task characteristic addressed, and the choice of training evaluation criteria also affect the observed effectiveness of training programs. Contrary to theory, the degree of implementation of training needs assessment was not found to affect training effectiveness, though the authors considered this to be the result of very few available data points and caution against false interpretation.

2.1.3 Training Design

Training design or instructional design is the method of crafting an outline for the creation of training procedure. How the training is to be conducted in a classroom, what audio visual aids are to be used in delivering it .Whether an electronic format is required or is it to be delivered using some combination of methods, the design process sets the stage for the advancement of the training program which is aimed at producing desired results.

The design creation stage of training programs includes determining learning objectives, planning to accomplishing those objectives, progression and aligning of the steps to be taken for its achievement including projects, lectures, videos, assignments, presentations, readings or other activities, and determining appraisal procedures. In designing a training program, a number of factors which influence the training are to be kept in mind by the trainers, including the existing information level of the audience, availability of various capabilities, time line and time lag in training, accessible resources and how the training may harmonize or clash with active programs in the organisation. The benefit of high-quality design is effective training which helps learners absorb the knowledge imparted with various systems; it pitches plausibly for better learning, uses resources astutely and meets learning objectives that had been set by the training program.An important factor in training design which comes into play in work environment is the time lapse between training and its usage, time lapse is the gap between learning of skills and their use, *Baldwin et al, 1991*. It is and important factor that affects the transfer of training.

Effects of training framing, general self-efficacy and training motivation on trainees' training effectiveness: In his study *Tai W.-T. . (2006)* investigated the effect of framing a training episode. The model tested hypothesised that training framing shapes learners' self-efficacy, which in turn affects their motivation for training, and both these variables determine subsequent training outcomes (utility reactions, learning, transfer motivation). Findings of study suggested that supervisors who frame an upcoming training as important and realistic can increase employees' self-efficacy for the training and their motivation for training. That is, motivation for training had a direct affect on training

outcomes and so self-efficacy acted as a partial mediator while also directly affecting training outcomes.

Conceptualising participation in formal training and development activities: A planned behaviour approach: Carbery, R et al (2011) tried to explain participation in formal training and development activities by using a planned behaviour approach. It is argued that employees are most valuable to their organisations when they are participating in on-going training and development and when this development is proactive or self-motivated. A central argument made is that participation in formal training and development is essential if employees are to enhance their generic competencies and thus employability, and so can be viewed as a precondition for career success. The authors argued that employees need to be viewed as agents of their own development.

Convergent and divergent validity of the Learning Transfer System Inventory: The study was conducted *by Holton III (2007)* based on their LTSI system. In prior publications the authors developed the Learning Transfer System Inventory (LTSI), which may be best understood as a) a framework for understanding training transfer and b) an analytical instrument for measuring an organisation's capacity for successfully transferring learning and training. This paper represents perhaps the most useful and first to consult when seeking to understand the conceptual, psychometrical, and empirical basis of the LTSI. That is because the set of factors argued to substantially enhance or inhibit transfer of learning to the work environment is systematically discussed. 16 factors, grouped into motivational, environmental, and ability elements, are thought to jointly affect learning, individual

performance, and organisational results. The paper also studied the convergent and divergent validity of the associated measures in relation to 28 comparison measures. The results indicate mostly divergent relationships, demonstrating a certain uniqueness of the LTSI as a framework and usefulness as an analytical tool for both practitioners and scholars.

2.1.4 Training Outcome

Training outcomes means the significant learning or change of behaviour that the trainees are expected to show after attending a particular training session. It is often defined in terms of learning taken back to the workplace by the said trainees from a particular training. It may be seen in terms of change in working style, updated market information, updating of skills, learning new skills and processes. It tends to identify beforehand what the trainees know and what they need to know to improve their performance (Steve W.J. Kozlowski. et al 2000).It is this training outcome which will effect the future performance of the trainees in the organisation and the organisation in relation to its environment.

Benefits of training and development for individuals and teams, organisations, and society: In their paper *Aguinis, H., & Kraiger, K. (2009)* outlined evidence on the impact of training and concluded that, by and large, training generates important benefits for individuals, teams, organisations, and society. However, certain boundary conditions for training effectiveness and efficiency are identified, and so the review also covers selected

literature on how to maximise the benefits of training. A plethora of training literature that was published during the first decade of the new millennium is reviewed, organised around training stages of needs assessment, pre-training states, training design and delivery, training evaluation, and the transfer of training. represents a timely introduction to the role, benefits, and key challenges associated with work training.

A review and critique of research on training and organisational-level outcomes: Tharenou P, et al (2007) in their paper addressed specifically the effects of training on organisational-level outcomes. Findings from a meta-analysis of 67 studies suggest that training is positively related to human resource outcomes and organisational performance. The authors further infer that a) training is only very weakly related to financial outcomes; b) the relationship between training and firm performance is mediated by employee attitudes and human capital; c) training is more strongly related to organisational outcomes when it is matched with key contextual factors such as organisation capital intensity and business strategy; and d) training is related to organisational outcomes, independent of other human resource practices and processes. With respect to the relationship between training and organisational-level outcomes, this paper also offers 1) theoretical models explaining the relationship; 2) three perspectives of strategic human resource management and their implications; 3) descriptions for measuring training and outcome; 4) a review of extant research studies; and 5) a critique and recommendations for future research. In sum, this paper went beyond the more common individual-level perspective and integrated evidence and theory in support of training's role in enhancing organisational effectiveness

2.1.5 Evaluating Training

Training evaluation refers to the measurement of the results attained by a training program. It involves assessing the achievement of training program for an organisation. Without a proper knowledge of how much value addition has been done by the training program an organisation cannot do the cost benefit analysis of the same. In terms of the learners it involves assessment of how much they are able to transfer the skills learnt from a training program to their job. Without this conducting a training program would be a futile exercise for any organisation. The tools available for assessment of different training programs differ according to the design of the training programs.

Since organisations spend a large amount of money, it is therefore important for them to understand the usefulness of the same. If a certain technical training was conducted, the organisation would be interested in knowing whether the new skills are being put to use at the workplace or in other words whether the effectiveness of the worker is enhanced. In case of behavioural training, the same would be evaluated on whether there is change in the behaviour, attitude and learning ability of the participants.

After training, an organization must evaluate the training to make sure that these training programs lead to improving on-the-job performance. This is done for the reason of checking whether employees can transfer what they are taught in the classroom to the workplace. Evaluation is an important part of training in order to understand the level of transfer of training. Among other benefits, evaluation can help understand the strengths and

weaknesses of the current training program, the impact of training on individuals and the impact of training on the organization (Reeves, 1994). Odiorne and Rummler (1988) proposed the following criteria in evaluating training programs. First, do in-course evaluation of participant's progress which measures the progress learners made in the training room. Second, impact on the participants after the training was finished. This means measuring the effects of the course upon the subsequent modified behaviour. This is usually measured by the transfer of class behaviour onto the job and the extent and duration of change, and to see whether the changes were in the right direction, and similar gives after effects behaviour. Upon completion of the training intervention, the trainees had demonstrated the skills competently and passed the knowledge test. But, why are they now unable to perform those skills at their workplace. There are many possible reasons. Historically, training interventions have rarely been successful in resolving job performance problems caused by factors other than lack of knowledge and skills. In some situations, learners acquired knowledge and skills during training only to find out that they are not supported in using this new information in their work environment. Before embarking on the design of a learning intervention and making an investment of resources in training, it is imperative to make certain that you are dealing with a performance issue that can be "fixed'' by training .

Kirkpatrick's (1998) four-level model of training evaluation was first developed in 1959 and, despite divergent opinions relating to its theoretical adequacy and practicality, the model is still considered something of a gold standard in the human resource development industry. This is a compilation of 50 selected articles, many with a practitioner focus, that relate to measuring training effectiveness in four key areas: reaction, learning, behaviour, and results.

2.1.6 Benefits of Training Evaluation

Evaluation ensures that the training is able to fill the gaps in skill sets and competency of employees within the organisation in an affordable manner without overrunning the cost of maintaining the human resources. This is particularly very significant in wake of the fact that the organisations aim at cutting costs and increasing turnover internationally. Some of the benefits of the training evaluation are as under:

❖ **Assessment ensures responsibility -** Training evaluation ensures that training programs meet the terms with the skill gaps and that the results are not compromised upon. It ensures that training programs add value to the organisation and meet their aims. It ensures that the training teams will work responsibly.

❖ **Verifies the Cost -** Evaluation ensures that the training programs are cost effective and perk up the work quality, employee behaviour, attitude and help in development of new skills among the employee within the approved budget. Since worldwide organisations are trying to streamline their costs without concession with their quality, evaluation intends at achieving the same with training which means provide better quality learning at low cost.

❖ **Feedback to the Trainer -** Evaluation also acts as a feedback process to the trainer for the entire training process. Since evaluation tests individuals learning at the level of their work, it gets easier to understand the loopholes of the training and the value

addition from training. Also it helps update trainers about improvement and the modifications vital in the training method in order to further streamline it as per the needs of trainees.

2.2 Transfer of Training

The skills and performance of people are critical for any organisation. Many organizations spend much money on training, believing that training will improve their employees' performance and hence the firm's productivity. The effectiveness of workplace training and development is largely determined by the extent to which training transfer occurs and is sustained over time.

Transfer of training is the application of learned knowledge, skills and attitudes to the job and subsequent maintenance over time *(Cheng & Ho 2001)* for the purposes of improving the job performance *(Velada & Caetano 2007). Geilen (cited in Van der Klink, Gielen, and Nauta 2001)* identified three dimensions of transfer: the direction; the level of complexity; and the distance. The direction of training transfer refers to either positive transfer where training leads to desired performance or negative transfer, where it fails to produce intended job performance. Lateral transfer refers to the learner being able to achieve a task at the same complexity level as the task already mastered whereas vertical transfer refers to the ability to apply learning to similar or more complex skills. Regarding distance, near transfer refers to training in tasks that are similar or equal to the learner's job tasks. Far transfer is where there is a lack of similarity to the job tasks and training focuses on

understanding and the application of principles or rules. Transfer of training can be said to have two broad aspects, firstly transfer of learning and secondly use of that learning (*Wexley & Latham 2001*).

2.3 Gaps in the Literature Review

Review of the literature has revealed that only few studies have been conducted on training transfer in developing countries and most have been done in job design context. Moreover, majority of the research work has been done in the field of job performance and training design especially with reference to the U.S.A., Australia and the U.K .In developing countries like Malaysia and Sri Lanka the studies have been conducted in reference of transfer of learning, the work environment factors have not been studied with employee satisfaction towards these in mind. In most studies it is concluded that the training transfer is the important to see employee's attitudes towards the job that are expected to be affected by perceived refinement (Ozer and Gunluk, 2010).

2.4 Theories of Training Transfer

According to *Holton (1996),* one cause of failure to transfer is that training design rarely provides for transfer of learning. It is therefore important to understand the theories that accomplish transfer.

2.4.1   Expectancy Theory

The theory suggests that job performance (P) is the result of the interaction of two components, force (F) and ability (A), with ability representing the potential for performing some task. *Vroom (1964)* defined expectancy as a momentary belief concerning the likelihood that a particular act will precede a particular outcome. Vroom's original presentation of expectancy theory placed it in the mainstream of contemporary motivation theory (Moorhead and Griffin, 1992). According to this theory, trainees leave training programs with different levels of motivation to use their learning on the job (Yamnill and McLean, 2001). However, Holton (1996) argued that influences on transfer motivation fall into four categories, namely, intervention fulfillment, learning outcomes, job attitudes, and expected utility.

2.4.2   Goal-Setting Theory

Goal-setting theory suggests two cognitive determinants of behavior: intentions and values. Intentions are viewed as the immediate precursors of human action. The second cognitive process manifests itself in the choice or acceptance of intentions and subsequent commitment to those goals *(Locke, 1968).*

2.4.3 Equity Theory

Equity theory is based on the simple premise that people want to be treated fairly *(Adams, 1963; cited by Yamnill and McLean, 2001*). The theory defines equity as the belief that employees are being treated fairly in relation to others and inequity as the belief that employees are being treated unfairly in relation to others. *Vroom (1964)* recognized that individuals seek equity in their jobs; thus, job satisfaction reflects the extent to which rewards received match the rewards the employee believes should be received.

2.4.4 Contingency Theory of Organization

Training is one of the most frequently utilized human resource development interventions *Scaduto et al. (2008).* According to *Burke and Baldwin (1999)*, there is much evidence suggesting that a considerable part of organizations' investment in training does not result in optimal transfer. Consequently, the last three decades have witnessed a new trend in

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the study of organizational phenomena. This trend is associated with the argument that the internal functioning of work organizations must be consistent with the demands of organizational tasks, technology or external environment among others. *Cannel (2004)* asserted that this approach led to the development of Contingency Theory of Organizations.

2.4.5 Identical Elements Theory

Thorndike and Woodworth (1901) proposed the theory of identical elements. According to the theory, transfer is improved by increasing the degree of correspondence among the training setting stimuli, responses, and conditions and those related factors operative in the performance setting.

2.4.6 Principles Theory

The principles theory suggests that training should focus on the general principles necessary to learn a task so that the learner can apply them to solve problems in the transfer environment *(Goldstein, 1986; Yamnill and McLean (2001).*

There have been numerous other studies conducted to see the relevance of training transfer in organisational settings. One of these was:

Is transfer of training related to firm performance?: Saks, A. M., & Burke-Smalley, L. A. (2014) amalgamated two independent but related streams of training research: a) micro - training research which explains and predicts individuals' training transfer performance, and b) macro- training research which examines the relationship between training efforts and organisational performance. They investigated the relationship between transfer of training and firm performance to test whether the former is indeed a key driver of the latter. It was found that organisations that use training to a greater extent report higher perceived organisational performance.

2.5 Factors Affecting Training Transfer

Baldwin and Ford (1988) identified three categories of influences on training transfer;

i.   individual characteristics,

ii. training design factors and

iii. organisational factors

A review of literature has demonstrated that research exploring the relationship between organisational, or the transfer system, factors and training transfer has been investigated less frequently than training design or individual characteristics *(Valada et al. 2007; Saks & Belcourt, 2006; Chen, Holton & Bates 2006).* The transfer system refers to all the person, training, and organisational related factors that have the potential to influence transfer of learning to job performance (Holton, Bates and Rouna, 2000). The complex events such as outcomes of a training intervention cannot be understood by analysing them in

isolation because learned skills at the individual level are embedded in a wider context. *Noe (2000)* suggests that an understanding of organisational factors affecting transfer will make a greater contribution to HRD practitioners wishing to optimise the effectiveness of training and development programmes. *Holton et al. (2000)* stated that an understanding of what constitutes an organizational transfer climate is unclear and there is no clear consensus on the network of factors affecting transfer of learning in the workplace. This is evident from the different explanations of the work environment. *Lim and Johnson (2002)* however, stated the work environment factors can be separated into two subcategories:

i.   Factors that relate to the work

ii.   Factors related to people

By observing the original performance problems, if the training has positive impact on the original performance, that mean transfer is said to have occurred *(Broad, 1982; Cormier, 1984; Foxon, 1993).* *Foxon (1993)* considered transfer as one of the training products or outcome, whether the transfer has occurred or not, then this product or the outcome can be identified and measured. *Foxon (1993)* further argued that in many cases like the intellectual skills it is difficult to identify whether the transfer has been occurred or not. Transfer-asproduct approach has some difficulties to be measured in many cases, so *Foxon (1993)* provided another approach which gives the transfer process certain stages, through this stages transfer of training can be identified.

The most frequently cited model of training transfer is one presented by *Baldwin and Ford (1988)* They organized their qualitative review around a model of training inputs (trainee characteristics, training design, and work environment), training outputs (acquisition of knowledge and skills during training), and conditions of transfer (generalization of knowledge and skills acquired in training to the job and the maintenance of that learning over time on the job).

i.   Trainee characteristics consist of factors such as ability, skill, motivation, and personality

ii.   Training design factors include the training objectives and methods and the incorporation of learning principles such as multiple training techniques and opportunities for practice

iii. Work environment factors include transfer climate, social support from supervisors and peers, and the constraints on or opportunities for performing learned behaviours on the job

A good example of these work environment factors is provided by Rouillier and Goldstein (1993), who defined transfer climate as consisting of two categories: situational cues and consequences

i.   Situational cues consist of things such as manager goals, peer support, equipment availability, and opportunity to practice trained skills

ii.   Consequences consist of punishment, as well as positive and negative feedback from both managers and peers when trainees attempt to apply the skills they learned in training.

Some of the major works were done by *Robertson and Downs (1979),* after reviewing studies regarding trainability testing, suggested that trainees' ability might explain about 16 per cent of the variance in training effectiveness .While Noe and *Schmitt (1986)* further stated that trainees' motivation and work environment might help explain another 15-20 per cent of the variance. Some authors *(e.g. Baldwin and Ford, 1988)* have suggested that early empirical research studying the effects of individuals' factors (e.g. trainee ability, personality, and motivation) and work environment on transfer of training are very few.

The recent work in this field is done by *Saks A And Belcourt M (2006).*The purpose of their study was to investigate the extent to which organizations implement training activities for facilitating the transfer of training before, during, and after training and the relationship between these activities and the transfer of training across organizations .Training professionals from 150 organizations reported that 62%, 44%, and 34% of employees apply training material on the job immediately, six months, and one year after training. Velada R et al (2007) undertook a study aimed to gain insight into some of the factors that determine the transfer of training to the work context .Data was collected at two points in time from 182 employees in a large grocery organization .In conclusion they said that the training researchers are yet to analyse the effects of the three determinants training design ,individual characteristics and work environment and suggested for scope of further research

The Literature Review of the previous works reveals that one of the most significant work was done in the field of training transfer *by Saks A & Belcourt M (2006)* who investigated the extent to which organizations implement training activities for facilitating the transfer of training before, during, and after training. Baldwin and Ford's definition reflects an Industrial or Organizational Psychology perspective. An industrial psychologist might be interested in how trainees' motivation to transfer is related to later job performance. The training domain might be very different from the later activity domain.

Woon L and Ven R (2011) proposed that further studies should be carried out on other trainees who attended the other field of training to determine the similarity of the research. Furthermore, they suggested that the future research should be focused on the peer support factor to identify whether the different level of peer support will affect the transfer of training. It was also recommended that future research should explore the other work environment factors, including the individual factor and training design factor which promote the transfer of training in order to have a complete picture of transfer of training.

*Factors Affecting Training Transfer: Participants' Motivation to Transfer Training, Literature Review :*This study was by *Alawneh MK (2008)* of Penn State University investigated factors that motivate participants in learning and training activities to transfer skills, knowledge and attitude from the learning setting to the workplace. Based on training transfer theories hypothesized by Holton (1996), one of the major theories that affect an organization's learning is motivation to transfer theory. Shedding the light on factors such

as positive expectation and self-efficacy might assist organizations' leaders to pay more attention to the needs of workers.

Social support in the workplace and training transfer: A longitudinal analysis: Chiaburu, D. S et al (2010) in their study examined the extent to which two forms of social support predict training transfer: 1) supervisor support, which involves asking questions about training, holding trainees accountable, use of participative goal-setting etc.; and 2) perceived organisational support (POS) which describes employees' belief about how much the organisation cares about them and values their contributions to the organisation. In conclusion supervisor support was positively related to learning goal orientation and organisational support was not.

The social context of training: coworker, supervisor, or organisational support? : Chiaburu, D. S. (2010) described his study which examined three potential sources of social support for training transfer: 1) co-workers, 2) supervisor, and 3) the wider organisation. Co-workers emerged as important, yet neglected, resources employees can draw on as support for both maintaining skills and transferring them to a workplace setting. These findings should direct attention to study the mechanism by which peers can systematically assist in the transfer of training. For practitioners the findings may stimulate the development of transfer-enhancing interventions situated at the co-worker level.

2.6 Barriers to Transfer

Practitioners have sought to explain the low levels of transfer in terms of barriers. In a research study, *Newstrom (1986)* identified the top three barriers to training transfer as lack of reinforcement on the job, interference from the immediate work environment; and a non-supportive culture for the change. *Newstrom (1992)* also determined that managers play the most significant role in resolving the problems of transfer of training. *Kotter (1988)* found that the most powerful force of inhibiting transfer was the lack of involvement by top management. Managers hold the primary responsibility for the number one barrier to transfer, which is lack of reinforcement on the job. *Kotter (1988)* contended that without management reinforcing and supporting what was learned during training, employees would easily fall back into their old routines. Furthermore, supervisors/managers may need training themselves to learn how to support the transfer of skills for their subordinates *(Broad & Newstrom, 1992)*. Trainees' intentions to engage in specific behaviors that would facilitate transfer of their skills *(Machin & Fogarty, 2003)* are central to performance. Unless, skill transfer is perceived by trainees and their supervisor as crucial to job performance, and they are rewarded in the work setting, training is likely to appear as ineffective *(Rossett, 1997; Taylor, 2000)*.

2.7 Indicators of Effective Transfer

A number of factors have been identified as positively impacting on training transfer such as:

i. **Securing top management support.** The commitment of top management is critical to successful training transfer *(Brinkerhoff & Gill, 1994; Fricker, 1994)*. As Fricker notes, "*Chairmen and chief executives need to recognize the value of learning as the primary force to facilitate and achieve change in their organizations.*"

ii. **Linking training to organizational aims.** *Brinkerhoff and Gill (1994)* cite the importance of the involvement of training managers in organizational planning and goal setting by formulating training goals that are linked to organizational needs and training strategies that achieve those goals

iii. **Ensuring that what is learned in training is transferred to the job**. In effective training and development systems, techniques are in place to ensure that the knowledge, skills, and attitudes that are learned in training are transferred to the job (Yaw, 2008). Examples of ways to ensure that employees use new skills they learn in training include holding trainees and their managers accountable for making sure skills learned in training are used on the job, integrating management into training planning and delivery, and integrating training with other human resource elements, such as the performance appraisal process (Human Technology, Inc., 1993).

iv. **Establishing a climate for transfer.** According to *Rouiller & Goldstein (1993)*, individual learning and training transfer are guided by the organizational climate, which can either inhibit or enhance transfer. The organizational climate can influence

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an individual's training responses through his or her perceptions of the organizational environment *(Yamhill & McLean, 2001).*

v.   **Incorporating transfer into design.** According to *Holton (1996),* training design can increase transfer by providing an opportunity to practice the training in a job context.

2.8. Transfer Maintenance

Maintenance is the extent to which changes that result from a learning experience persist over time. Transfer maintenance is the participant's proficiency in applying the learning and skills gained in training on the job (*Laker, 1990).* Transfer maintenance can be viewed as a permanent change in an individual's behavior, skill, and/or attitude, among other things; it represents the continuous application of skills and behaviors on the job over time (*Laker, 1990).*

Yelon, et al (2013) did a qualitative study which investigated the transfer process from the perspective of the individual trainee, years after training occurred. The researchers interviewed eight physicians to explore if, 2-10 years later, they had implemented what they were taught in a faculty development training program. Indeed, these autonomous professionals continued to apply the teaching concepts they once learned. Each, in a personal way, opted to make use of varied ideas, in different ways, and in several contexts. The physicians applied ideas using intellectual skills such as planning and analysing, and

continued their applications because they perceived supportive work conditions and positive consequences. The authors reason that, over the long term, the professionals acquired knowledge and mental skill, chose to use them, and attempted application. They reflected on outcomes, decided to reuse or revise, and tried again. Thus, the process of long-term transfer is described as complex, dynamic, and emerging, and framed as 'learning to use and learning from use'.

Distal goal and proximal goal transfer of training interventions in an executive education program: Brown, T. C, & Warren, A.M. (2009) in their longitudinal field study tested how the transfer of training and trainee self-efficacy may benefit from different goal-setting interventions during the learning experience. The 89 participants were randomly assigned to 1) a distal outcome goal group; 2) a proximal plus distal outcome goal group; or 3) a 'do-your-best' (DYB) goal group. The findings suggest that the use of proximal plus distal goals increased training transfer maintenance relative to distal goals or DYB.

2.9 General Work Environments

Literature suggested that trainees' job autonomy and their workload are of importance regarding the transfer of training by trainees, both being part of the general work

environment. Scales have been developed for the trainee as well as the supervisor questionnaires, and included in the general part of these questionnaires.

Job autonomy reflects the extent of autonomy a person has in his or her job. Van *Woerkom (2003)* used a six-item scale to measure task autonomy in her study, reporting an α-coefficient of .85. These items all reflect autonomy in general work activities, for which reason they are also expected to provide a valid measurement of job autonomy. All items have been reformulated to propositions, and references to tasks within items have been changed to references to the job in general. In addition, some items have been slightly adjusted. One of the items in the trainee questionnaire is "In general, I have a lot of freedom in carrying out my job". Excessive workload refers to situations in which a trainee is faced with too much to do in the time that is available (Kirmeyer & Dougherty, 1988). Three items regarding trainees' workload were formulated, a trainee example of which is "In general, I have no time to use the knowledge, skills and attitudes gained in training on my job".

Assessing the antecedents of transfer intentions in a training context : Machin, A. M., & Fogarty, G. (2004) in their study they examined transfer climate as an antecedent to training transfer. What makes this study particularly interesting is its investigation of positive and negative affectivity in relation to trainees' perceptions of transfer climate and other training-related variables such as pre-training self-efficacy, pre-training motivation, and post-training transfer implementation intentions. However, given its design this study cannot determine whether levels of affectivity are contributing to their perceptions of the transfer

climate or are a product of the transfer climate. Those results suggest that future theory and models of training motivation and transfer should consider affectivity. To enhance the chance of training transfer practitioners may seek to reduce negative affectivity in learners and build their positive affectivity.

Reconceptualising the learning transfer conceptual framework: Empirical validation of a new systemic model: Kontoghiorghes, C. (2004) in his paper highlights the importance of organisational factors for the investigation and facilitation of training effectiveness. Most factors studied under the traditional conceptual transfer frameworks pertain to trainee characteristics and attributes that are directly related to the training context or training-related outcomes. Under such view, the work environment is defined in terms of characteristics that mainly describe the training transfer climate and therefore treat training as a non-systemic phenomenon, independent of the variables that affect work performance. The model proposed here suggests that training transfer is affected by the following organisational aspects: socio- technical system design, job design, quality management, and continuous learning environment. The model was tested using survey data supplied by a sample of employees (N = 198) of one organisation. The study found that motivation to learn, the motivation to transfer, and training transfer were significantly related to a positive learning transfer climate, and awareness of how one's job contributes to the .Collectively these influences portray a high performance work system and make evident that the transfer of training should be studied in isolation.

Making transfer climate visible: Utilizing social network analysis to facilitate the transfer of training: Hatala, J.-P (2007) in the paper examined the role of the social context at work in relation to training transfer. The authors proposed social network analysis (SNA) as a methodology for analysing transfer climate prior to training. In brief, SNA focuses on the interpersonal mechanisms and social structures that exist among interacting units such as people within an organisation, and outcomes are affected by how those people are tied into the larger web of social connections. SNA is introduced as a tool for analysing an employee's organisational network relationships prior to training to help the facilitator, the supervisor, and the individual learning gain an accurate picture of the transfer climate. The transfer climate encompasses an individual's perceptions of supervisor support, opportunity to use new training, level of peer support, supervisor sanctions, and positive or negative *personal* outcomes resulting from application of training on the job. SNA is thus put forward as a technique to analyse the interpersonal mechanisms and social structures that exist within a unit the learning individual is nested in.

2.10. Social Impact of Training Transfer

In the social impact of training transfer my focus was to study the various model of evaluation of training and their outcome to gain a better understanding of the expectations of various social groups from training and how trainings are evaluated to see if these expectations are being met. These expectations are not just in terms of changed behaviour of individuals and learning and retention of new skills but also recovering the cost of training resulting from such behaviour by the organisation, lesser attrition rates and more dedication

of employees towards their organisation. Some important models that discuss the returns on amount spent by organisations on training are:

2.10.1 Cost-benefit analysis

It is the oldest evaluation method used to access the feasibility of expenditures of all types of programs in order to show the value of education and training *(Kearsley, 1982; Prest & Turvey, 1965; Thompson, 1980)*. It can be understood as:

- Identify key stakeholders and their values

- Identify alternative choices to compare to the program

- Define the costs and the benefits of all alternative choices

- Place a monetary value on the cost and benefits

- Identify intangible benefits (those not converted to monetary value or any additional benefits identified through the evaluation)

- Compare the costs and the benefits derived

- Make a decision regarding the program

2.10.2 Phillips' Five-Level ROI Model

In the 1980's *Phillips (1983)* began efforts to stretch the training evaluation to Return on Investment (ROI), which he called Level Five. This type of evaluation is similar to

Kirkpatrick's Level Four in that it seeks to identify training results, usually in a monetary form, but it differs because it also examines the cost of the training (investment) that may have led to the measured results. The cost of the training is subtracted from the monetary value of the results to obtain the ROI

2.10.3 Kaufman's five Levels of Evaluation

Kaufman and Keller (1994) developed another type of training evaluation, which is a variation of Kirkpatrick's four-level framework that expanded the definition of Level One and added a fifth level that addresses societal issues, client responsiveness, the consequences and payoffs. They use the concept of enabling, at Level One, which addresses the availability of various resource inputs necessary for a successful intervention. Their work attempts to move evaluation beyond the organization, and examine the extent to which programs enhance society and the environment surrounding the organization *(Phillips, 2004).*

2.10.4 Success Case Evaluation Model

Brinkerhoff and Dressler (2002) developed the Success Case Evaluation Model. Their model uses purposive sampling rather than random sampling. The model focuses on input from training participants who have been most successful as well as least successful at applying the knowledge and skills learned during the training evaluation.

2.11 Conceptual Framework of Training Transfer

From the review of literature we can create a conceptual framework for training transfer for understanding the various aspects. It includes the following:

2.11.1 Trainee Characteristics

It is the inner ability of the trainee or his personality. It is also referred to as trainability which is to say his ability, motivation and work environment perception in totality. It encompasses his self concept and attitude towards learning. Trainability means a trainees' preparedness for training to happen. His previous education and experience contributes to his preparedness for learning.

Trainee characteristics (e.g. personality, trainee ability, motivation effects) were initially identified by training practitioners as the sole factor affecting transfer of training *(Baldwin and Ford, 1988).* But with time these characteristics were stretched. Among various personal characteristics, locus of control was presumed in many earlier studies to affect the transfer process (*e.g. Baumgartel et al., 1984; Noe and Schmitt, 1986*). Locus of control is defined by *Rotter (1966)* as a general anticipation that organisational outcomes like rewards

and reinforcements in life are controlled either by an individual's own actions or by other forces. In a training situation, employees with a strong belief that they can control the organisational outcomes are more likely to help apply their learnt behaviour from training to the job scene. Organisational outcomes can be recognition, promotions, salary increases and job enlargement. The study of *Tziner et al. (1991)* indicated that those with an internal locus of control who benefited from a relapse prevention module demonstrated higher better understanding of the training contents. Self-efficacy is defined as ``people's judgements of their capabilities to organise and execute courses of action required to attain designated types of *performances'' (Bandura, 1986)*. The trainees with a high level of confidence in their performance and behaviour change will be more likely to apply what they have learned from training on the jobs.

The Learning Transfer System Inventory (*LTSI, Holton et al., 2000*) was developed to assess the 'transfer system', i.e. 'all factors in the person, training and organization that influence transfer of learning to job performance'. With this aim, the instrument measures 16 dimensions likely to influence training transfer; 11 specific factors, which relate to the particular training program the trainee was attending, and five general factors, which are likely to influence any training program conducted.

2.11.2 Motivation Factors

Inadequate motivation is likely to cause poor mastering of the training by the employees and subsequent training performance motivational variables that are grouped into four major dimensions: career and job attitudes; organisational commitment; decision and reaction to training; and post training interventions. Motivation is significantly affected by temperamental factors in the employees. Career and job attitudes generally refer to the cognitive state of psychological identification with one's career and job. Organizations whose performance depends on their employees' willingness to learn continually and use their learning to make changes in the workplace must be concerned with the dispositional profile of those employees *(Sharon and Holton, 2002).* A study conducted by *Kehrhahn (1995)* investigated the relationship of individual and perceptions on transfer of customer service skills training found that motivation to transfer was one of the variables that predicted transfer of learning. However, trainees who frequently engage in cognitive or environmental search activities are expected to have a better understanding of their strengths, weaknesses and interests . *Noe and Schmitt (1986)* describe motivation as a desire to use the knowledge and skill mastered in the training program on the job. In fact, they recognise the importance of learning new skills and refining current skills *(Facteau et al., 1995)* so that such skills can match with the requirements of the new job settings. Trainees who had both good career planning and a high level of job involvement were more likely to be motivated to learn *(Mathieu et al., 1992; Williams et al., 1991).* Employees being offered opportunities to provide input into the training decision were more likely to perceive the training as useful for their jobs which, in turn, resulted in higher levels of pre-training motivation *(Baldwin et al.,*

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1991; Clark et al., 1993; Mathieu et al., 1992). The pre-training motivation was said to be related to learning in a training programme *(Baldwin et al., 1991; Mathieu et al., 1992)* and subsequent training performance *(Mathieu et al., 1992).* Moreover, trainees' reaction to training was shown to affect their learning and subsequent training performance *(Mathieu et al., 1992; Martocchio, 1992).* The study of *Tziner et al. (1991)* revealed that a relapse prevention component included in a training helped increase the likelihood of the prognostic power of internality and a supportive environment on the use of trained skills and transferring them to the job. More recent studies have supported the importance of post-training interventions on skill transfer and maintenance. *Burke (1997)* found that relapse prevention positively affected the trainees' ability to transfer and desire to transfer.

2.11.3 Work Environment Factors

In the training setting, the organization is responsible for preparing the climate of learning to the convenience of the trainees. A number of strategies can be employed to enhance learning transfer system: first, the organization has to ensure a supportive transfer climate, program planners may clarify with the supervisor what is to be learned and how that is transferred through follow-up assistance such as individual coaching and peer mentoring. Second, the organization should include participants in the planning. And third, the organization has to integrate strategies that relate to transfer in the program design *(Merriam and Leahy, 2005)*

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The supports-in-organisation variables come from the concept of social support that is said to be influential when employees believe that other client systems in the organisation(e.g. their supervisors and peers)provide them with opportunities for practising new skills and knowledge in the job settings *(Noe 1986).* Opportunity to practise ensures that when trainees have plenty of chances to apply what they have learned to their jobs, a larger amount of training content can be transferred *(Ford, 1992).* Some researchers have used the term "transfer climate" to represent the social supports from the organisation *(e.g.Tracey, 1992).* Basically, there are four major sources of social support of subordinate, peer, supervisor and top management (*Facteau, 1995). Tziner et al. (1991)* found that supportive environment alone could not influence trainees' use of trained skills.

2.11.4 Perceived Value and Credibility

Perceived value is the worth of the training in the minds of the trainees *(Au AKM et al 2008).*If the trainee group does not value the training imparted they do not actively imbibe the learnings there from and are less likely to reproduce the learning on the job. This could be due to varying factors like training environment, training design ,trainee or the trainer themselves .Another important factor is the credibility of the training if the training being imparted sounds impractical to the trainees they are less likely to perceive its value and learn from it.

2.11.5 Social Impact of Training

Training being cost intensive process for any organisation needs to generate the desired outcome for becoming useful to the society and having a social impact on the society in which it is being imparted .In the social impact of training transfer we studied various model of evaluation of training and their outcome to gain a better understanding of the expectations of various social groups from training and how trainings are evaluated to see if these expectations are being met.

From our Review of Literature some work environment factors come to the fore which may affect training transfer these can be categorised as:

Table 2.1: Work Environment Factors

Work Environment Factors	Parameter	Reference
Physical Factors	1. Employee characteristics: 　i.　Ability 　ii.　Personality 　iii.　Academic Qualification 　iv.　Experience 2. Supervisor Support 3. Peer Support 4.Time Lapse	Sherer and Maddux (1982) Holton ,LTSI(2007) Holton ,LTSI(2007) Baldwin et al (1991)
Psychological Factors	1. Motivation 2. Perceived Value 3. Credibility	Kehrhahn (1995) Au AKM et al 2008)

Table 2.2: Variables of Training Transfer

Variables of Training Transfer	Reference
Learning From Training	*Pollock et al (2010)*
Use of New skills learnt	*Holton III (2007)*

The goal of this Chapter was to provide a literature review of training transfer, research on key transfer variables and a theoretical background of how trainee transfers his training to work place and environmental factors which influence training transfer. As noted earlier, Baldwin and Ford (1988) created a transfer model that highlights the importance of trainee characteristics, training design factors and work environment factors. In this chapter it has been an endeavour of the researcher to create a conceptual framework of training transfer from its understanding.

CHAPTER III

RESEARCH METHODOLOGY

This chapter aims at defining the research process followed for the purpose of research and giving the stepwise structured details. It defines the method how the research was approached by the research. It provides a review of the research methodology used for

the study. The following sections include a description of the sample, the survey administration, data collection, and data analysis techniques.

3.1 Research Gap

The issue of training transfer has not been much researched upon in India has been done in this field recently. Most researches till now have focused on either trainee characteristics or training design characteristics there is a need to focus on the role of work environment in training transfer. In India very less work has been done in the field of training transfer. Considering the size of Indian pharmaceutical industry and the cost of training that is being incurred by it on the marketing professionals there is an urgent need to see how much of that training is actually being useful at workplace and which factors that is important for training transfer.

3.2 Need for Study

Because of the large size of the pharmaceutical sales force, the organization, management, and measurement of effectiveness of the sales force are significant business challenges. Management tasks are usually broken down into the areas of physician targeting, sales force size and structure, sales force optimization, call planning, and sales forces effectiveness. A few pharmaceutical companies have realized that training sales representatives on high science alone is not enough, especially when most products are similar in quality. Thus, training sales representatives on relationship selling techniques in addition to medical science and product knowledge, can make a difference in sales force effectiveness.

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Sales force training is one of the most critical aspects of success in the marketplace. Pharmaceutical companies have realized this fact and have gone to great lengths to ensure high quality of their training procedures and materials. In spite of high basic salaries and attractive perks, they experience one of the highest turnover-rates for their sales force. As a result they push towards training programs focuses on short-term revenue which results in a training bottleneck where not much is transferred to jobs.

3.3 Research Problem

Pharmaceutical companies spend millions of rupees on training their employees but this investment is lost without the training being transferred to the job by trainees. The study aims at covering the medical representatives working in pharmaceutical companies in Lucknow area and study whether the training given to them is transferred in their day to day work from their perspective and importantly whether they are satisfied with factors in their work environment that affect transfer of training.

3.4 Scope of Research

The study aims to cover the medical representatives working in various pharmaceutical companies in Lucknow. It will be helpful in analysing the views of medical representatives regarding transfer of training in this industry. Findings will be helpful in getting information regarding training transfer in pharmaceutical companies.

3.5 Objectives of Study

Transfer of learnings gained from training to the work place and performance is a major issue for the evaluation of the effectiveness of training. This study is designed to provide an insight on this issue. The objectives of this study are:

v.   To find out the work environment factors affecting training transfer of medical representatives

vi.   To find out the relationship among the work environment factors

vii. To assess the relative impact of work environment factors on training transfer

viii. To assess the relative impact of work environment factors on training transfer maintenance

Thus in this chapter we have defined the objectives of our study which sets the platform for the next chapter which is the methodology followed for our study which is discussed in the next chapter.

3.6 Research Design and Methodology

Research Design: The research design used is confirmatory. The hypothesis have been formulated on the basis of results of previous studies on training transfer which we aimed at describing and analysing through the survey of Medical Representatives working in various Pharmaceutical Companies in Lucknow.

3.6.1 Research Process

The process /steps followed in our research design can be explained as follows:

1. Review of literature was conducted and problem statement of research was done.

2. The research problem was simplified into objectives of research. In this research work the problem is to find out whether training transfer is taking place among medical representatives working in Pharmaceutical Companies working in Lucknow.

3. Through the review of literature we identified two parameters for assessing transfer of training a) learning of new skills: being training transfer b) use of new skills: being transfer maintenance and the work environment factors which come into play namely the individual, his peers, supervisory and his psychological bent like motivation, perceived value and credibility of training

CHAPTER IV

DATA ANALYSIS AND INTERPRETATION

Analysing Work Environment Factors Affecting Training Transfer of Medical Representatives

4.1 INTRODUCTION

The medical representatives are the ambassador and act as linking pins in pharmaceutical industry. They provide physicians and other health care professionals with vital information for which they undergo extensive training. There may be numerous factors in their work environment that may be affecting the transfer of training.Based on our extensive literature review we were able to identify the major work environment factors for training transfer. These work factors encompass the individual, opportunity to perform and supports – in organisation or the social support (ref: Table 2.1).

4.2 DATA ANALYSIS

4.2.1 Analysis of Interview Schedule

A total of 11 variables were identified and the interview schedule (Annexure –I) was prepared .The frequencies of responses are given in table 5.1.All the variables have their frequencies based on the feedback by the respondents. The survey was conducted of 20 Medical Representatives working in various pharmaceutical companies in Lucknow. The

purpose was twofold, firstly to gain insight into trainings conducted by pharmaceutical companies in Lucknow, and secondly to see whether from the point of view of Medical Representatives the work environment identified by us are recognised by them as important for their learning.

Table 4.1 Frequencies of Variables

S.No	Variable Name	Total	Frequency of 1		Frequency of 2		Frequency of 3	
			f	%	f	%	f	%
1	Frequency Of Trainings In Organisations	20	10	50	6	30	4	20
2	Type Of Training	20	15	75	3	15	2	10
3	Training Experience	20	16	80	3	15	1	5
4	Perception Of Training	20	18	90	1	5	1	5
5	Credibility Of Training	20	14	70	4	20	2	10
6	Important Individual Characteristics	20	9	45	7	35	4	20
7	Peer Support For Training Transfer	20	12	60	6	30	2	10
8	Supervisor Support For Training Transfer	20	15	75	1	5	4	20
9	Locus Of Control	20	6	30	6	30	8	40
10	Ability To Learn	20	15	75	3	15	2	10
11	Opportunity To Perform	20	14	70	2	10	4	20
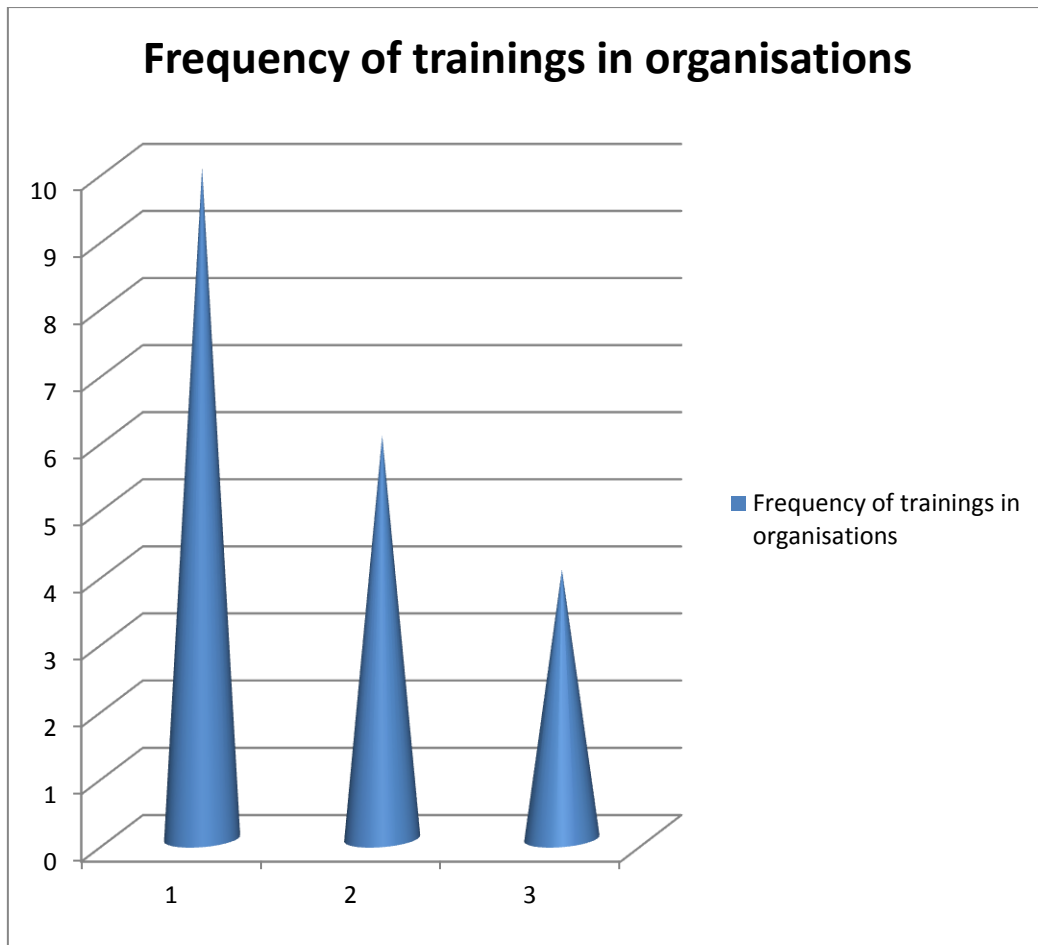
Fig. 4.1 Frequency of Trainings in Organisations

The question of trainings in organisation question was put forward to respondents to gather information regarding how frequently the respondents organisation conducted training .This variable reflects whether the organisation is emphasising on its human resource development or not. The respondents had to choose from the options between, 1) Annually, 2) Bi-annually and 3) Quarterly. Option 1 i.e. annually was selected by 10 respondents, while option 2 was opted by 6 and 3 was opted by 4 respondents. Thus 50 % respondents said that trainings happened annually in their organisation.
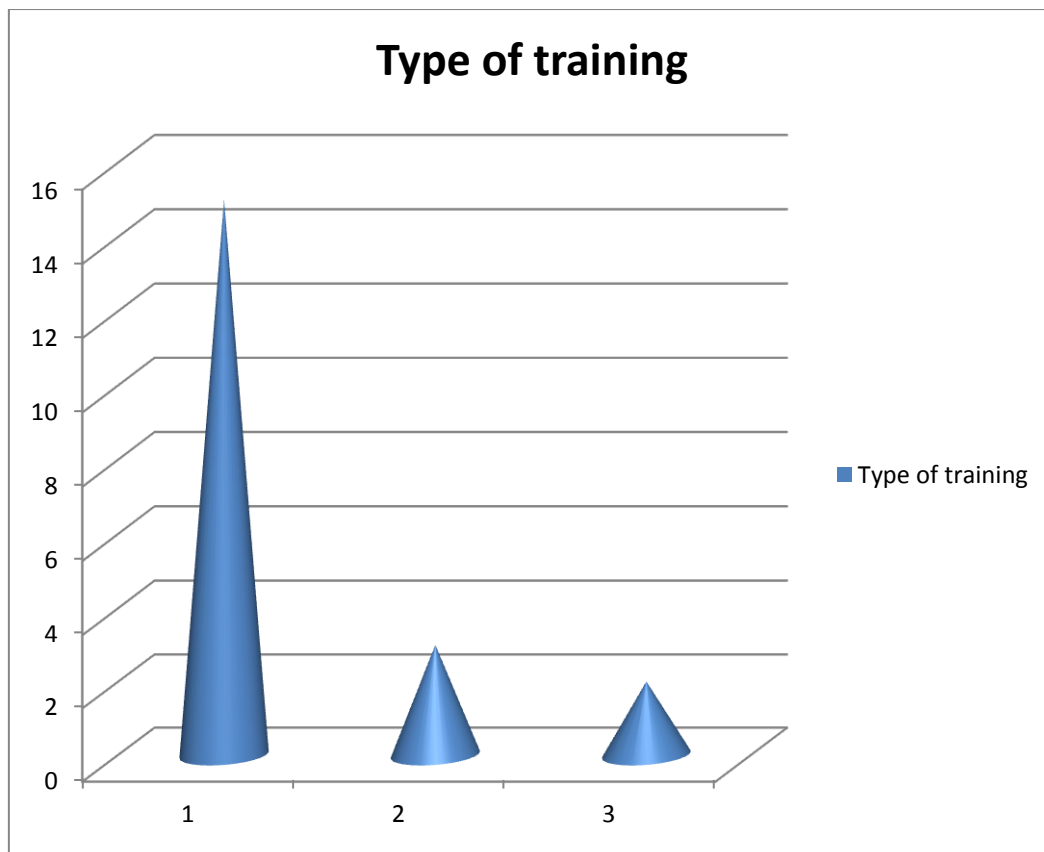
Fig 4.2 Frequency of Type of Trainings

There are three major types of trainings given to medical representatives, product training regarding the product specifications, communication training for dealing with clients and objection handling training for dealing with client objections. The question of type of training which is more useful for medical representatives which is held by their organisation was put forward to them. It reflects the type of training which adds more value to the human resource/ trainee group which it is meant for, with options being 1) Product Training, 2) Communication and 3) Objection Handling. Out of 20 respondents 15 chose 1) product training while 3 chose 2) communication training and 2 chose 3) objection handling .Hence 75 % respondents believed that product training was more important to them.

Figure 4.3 Frequency of Training Experience

The third variable is training experience or how the trainees see their training whether it is helping them, whether it is all theory or whether it is unusable. In the third question the asked about the training experience of the respondents. Whether they found it to be 1) Helpful , 2) Theoretical and 3) Impractical. To this out of 20, 16 found it to be helpful, 3 found it to be theoretical and 1 found it to be impractical. It reflects whether the trainee group is satisfied with the outcome of training or not. 80 % respondents find trainings helpful.
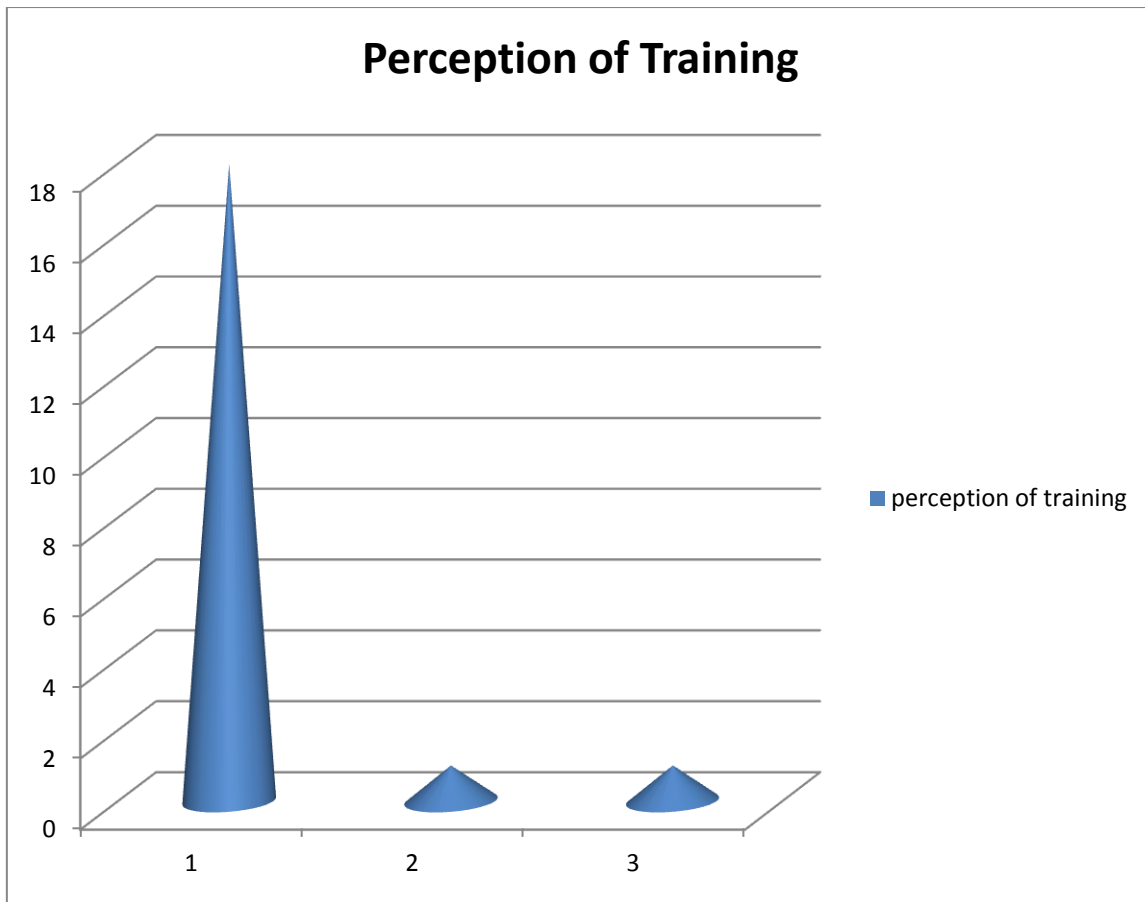
Fig 4.4 Frequency of Perception of Training

The fourth variable is perception of training meaning whether the trainees see training as opportunity to learn new skills. It indicated perceived value which is the worth of the training in the minds of the trainees *(Au AKM et al 2008)*. In the fourth question the trainees were asked about how useful the trainings were in learning new skills. It reflects the perception of the respondents about trainings in general. The options were 1) Yes, 2) No and 3) Cant Say. To this question 18 out of 20 respondents reported yea and on 1 reported no and 1 reported can't say. This reflects that the majority of respondents which is 90% have a positive perception of training. This is a pre-requisite for training transfer to take place.

Credibility of Training

Fig 4.5 Frequency of Credibility of Training

The fifth variable is credibility of training *(Au AKM et al 2008)* which represents whether or not the respondent group trusts that trainings make a difference in their job performance and deliver what they purport to. For this the respondents were asked whether the trainings deliver what they claim to and 14 out of 20 respondents claimed they did, which is 70 % respondents considered the trainings realistic. Thus we can say that the respondent groups considered trainings credible .This is an important psychological work environment factor for training transfer.
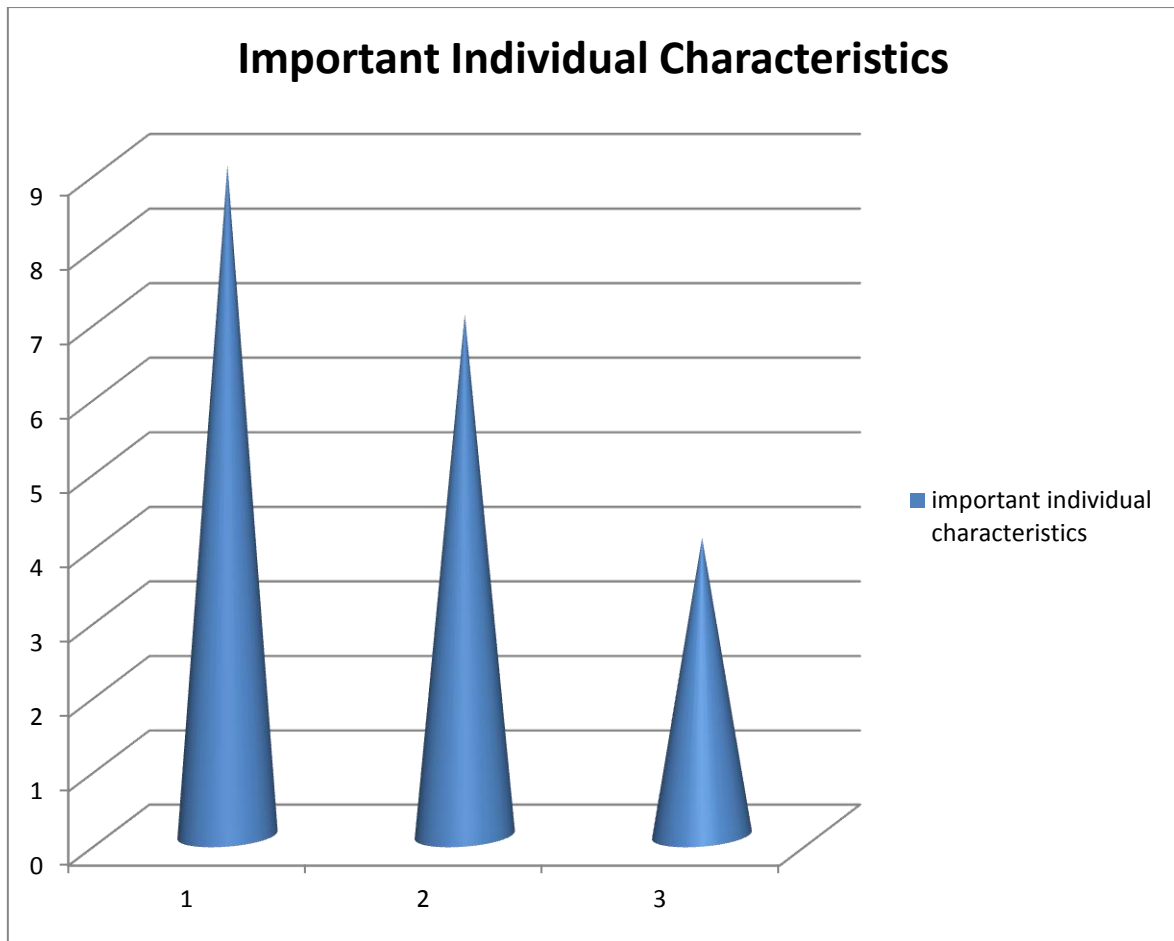
Fig 4.6 Frequency of Important Individual Characteristics

The sixth variable was individual characteristics. Some important individual have been identified by researchers like personality, academic qualification .experience as individual factors affecting training transfer *(Baldwin and Ford ,1988)* in their model of training transfer. The respondents were asked what helps you the most in learning from training sessions and most respondents agreed with academic qualification. 9 chose academic qualification 7 chose experience and 4 chose personality. Thus 45 % were in favour of academic qualification, 35 % in favour of experience and 20 % in favour of personality as characteristics which helps them in learning from training.
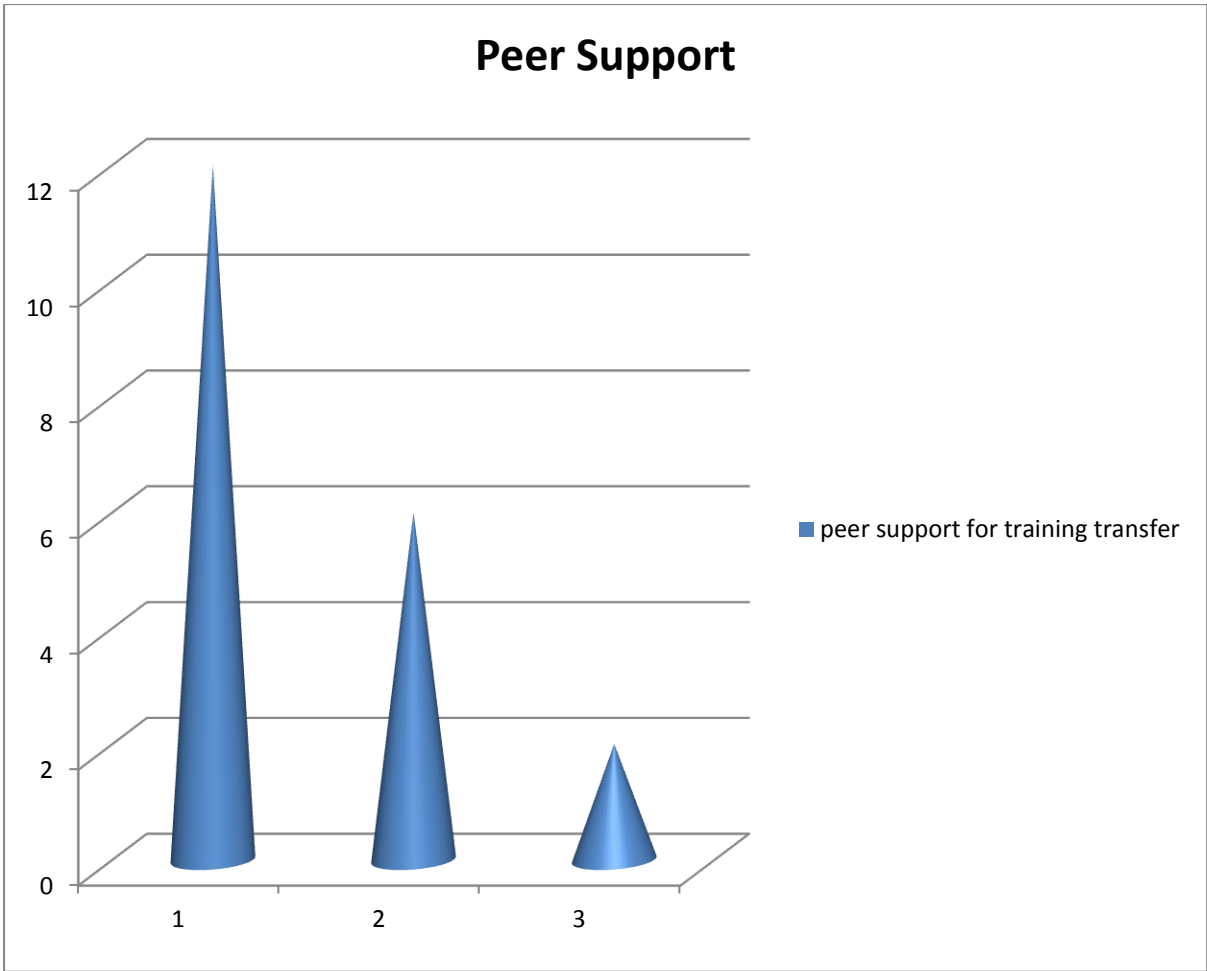
Fig 4.7 Frequency of Peer Support

The seventh variable was peer support .For this the respondents were asked whether their peers help them with the skills learned from training programmes they attend. This variable is an indicator of social support in the work environment of the medical representatives as identified by *Holton III* in his Learning Transfer System Inventory 2007.For this respondents 60 % respondent s said yes while 30 % said no while 10 % reported cant say .Thus we can say that there is a role of peers in training transfer of medical representatives .

Supervisor Support
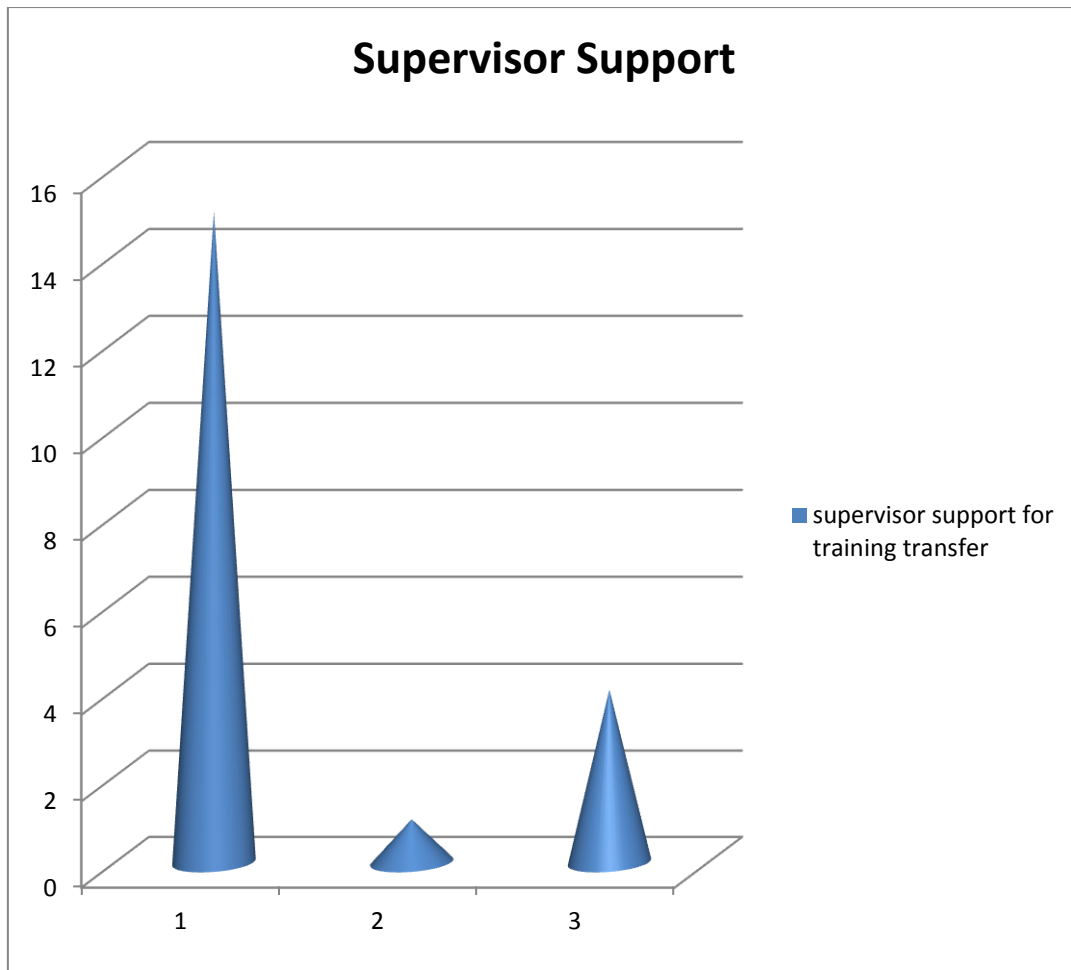
Fig 4.8 Frequency of Supervisor Support

The eighth variable was supervisor support .For this respondents were asked whether supervisors supportive of your training programmes and encourage them. This variable is an indicator of social support in the work environment of the medical representatives as identified by *Holton III* in his Learning Transfer System Inventory 2007.For this respondents 75 % respondent s said yes while 5 % said no while 20 % reported cant say .Thus we can say that there is a role of peers in training transfer of medical representatives.
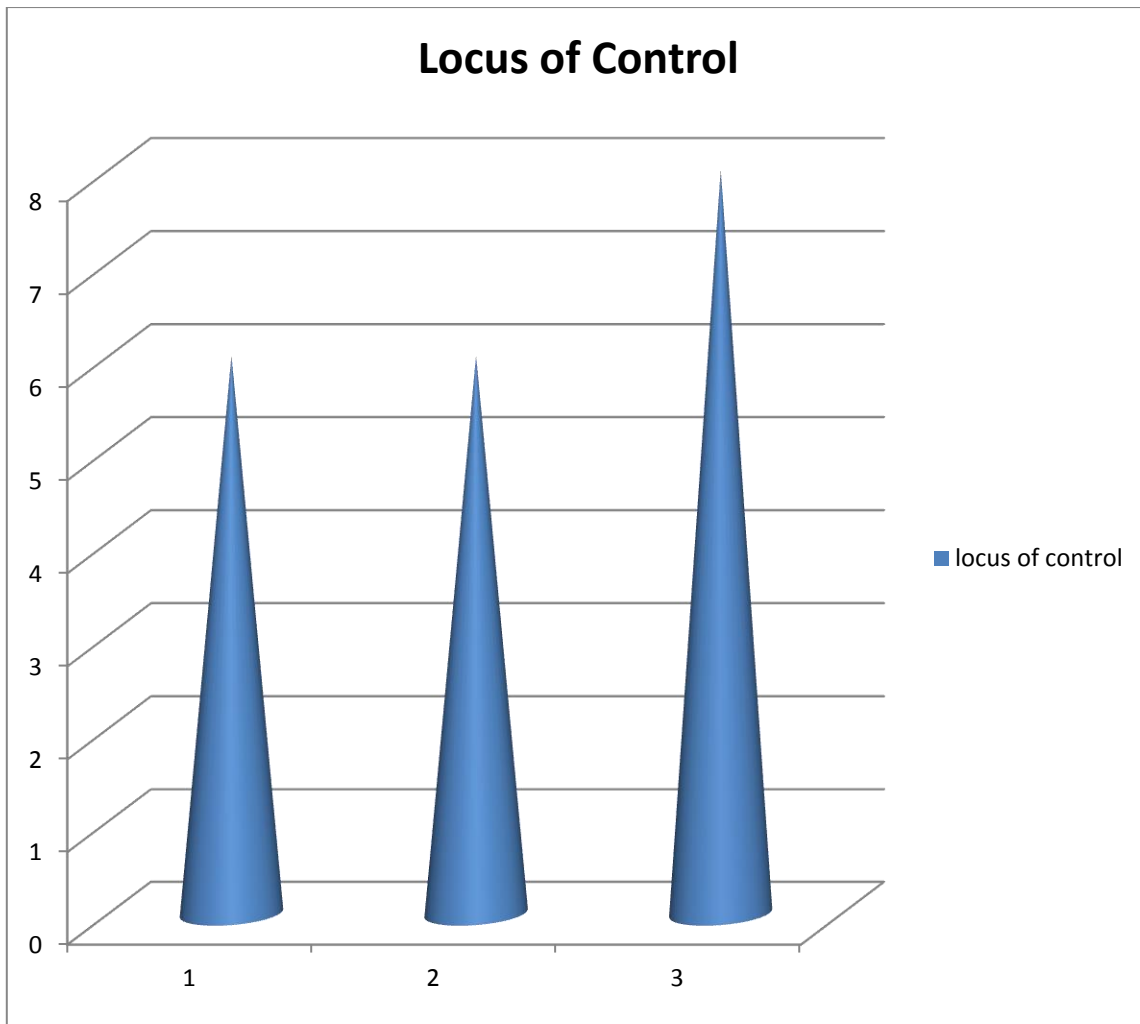
Fig 4.9 Frequency of Locus of Control

The ninth variable is the locus of control it is related to whether the individual considers himself responsible for learning or the outside factors. For this the respondents were asked what plays a more important role in learning new skills from training, peer support , supervisor support or motivation also identified by *Baumgartel et al., 1984; Noe and Schmitt, 1986*. The opinion of respondents were divided as 30 % each agreed with peer support and supervisor support while 40 % agreed with motivation.
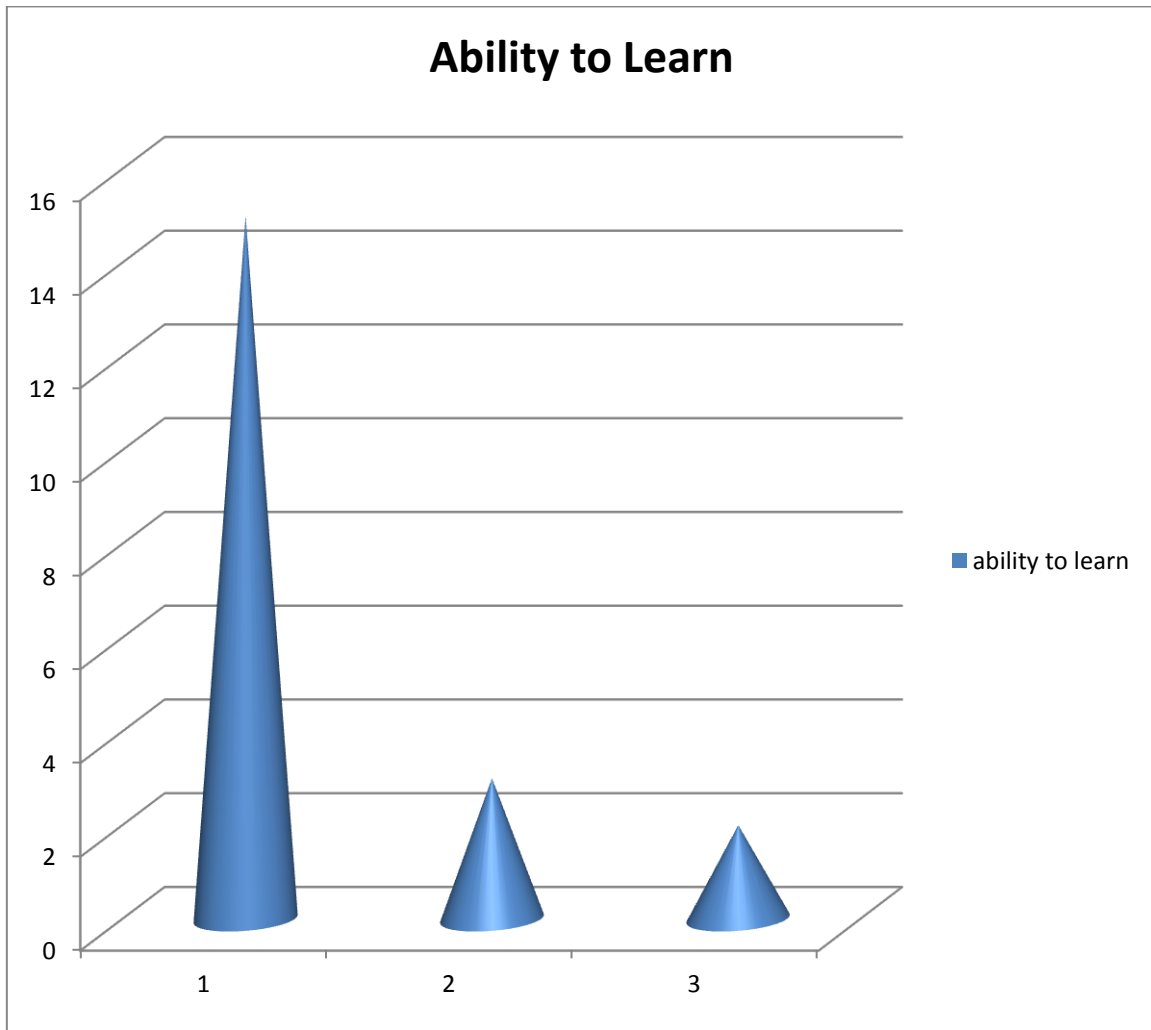
Fig 4.10 Frequency of Ability to Learn

The tenth variable was the ability to learn which indicates trainability as identified by *Robertson and Downs (1979),* Trainability is said to be the ability of trainee to learn. For this the trainees were required to answer whether they are able to learn new skills from every training session that they attend. For this 75% reported yes 15 % reported no while 10 % reported can't say. Thus a majority of respondents viewed their ability to learn from trainings positively.
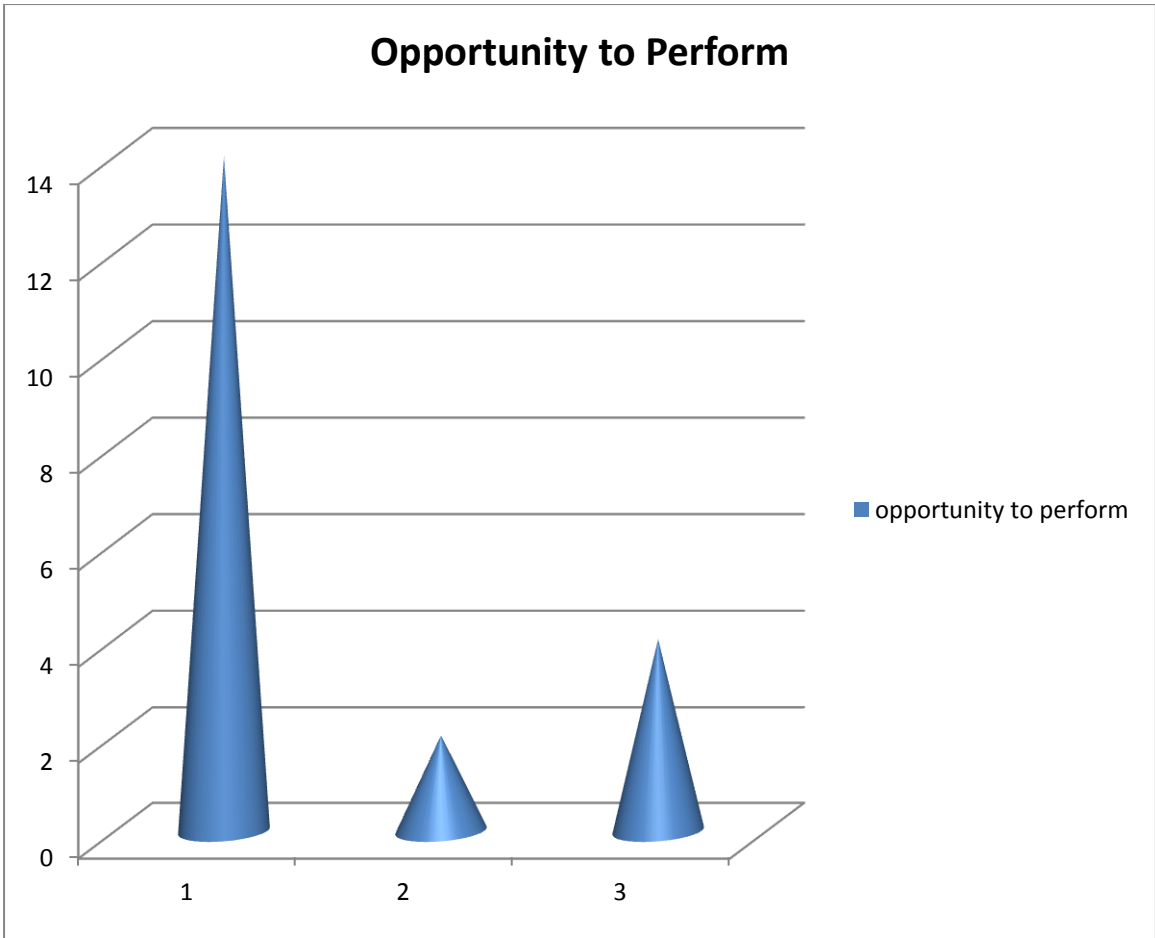
Fig 4.11 Frequency of Opportunity to Perform

The eleventh variable is the opportunity to perform it reflects the extent to which the trainee is provided with or seeks out experience using the new knowledge, skills, or behaviours learned in the training program *(Holton III, 2007, LTSI).*For this the respondents were asked whether they are able to use their skills learnt from training in their daily work. For this 70 % respondents were positive, 10 % were negative while 20 % were unsure. Thus we can say that the majority were positive that they were able to use new skills in job.

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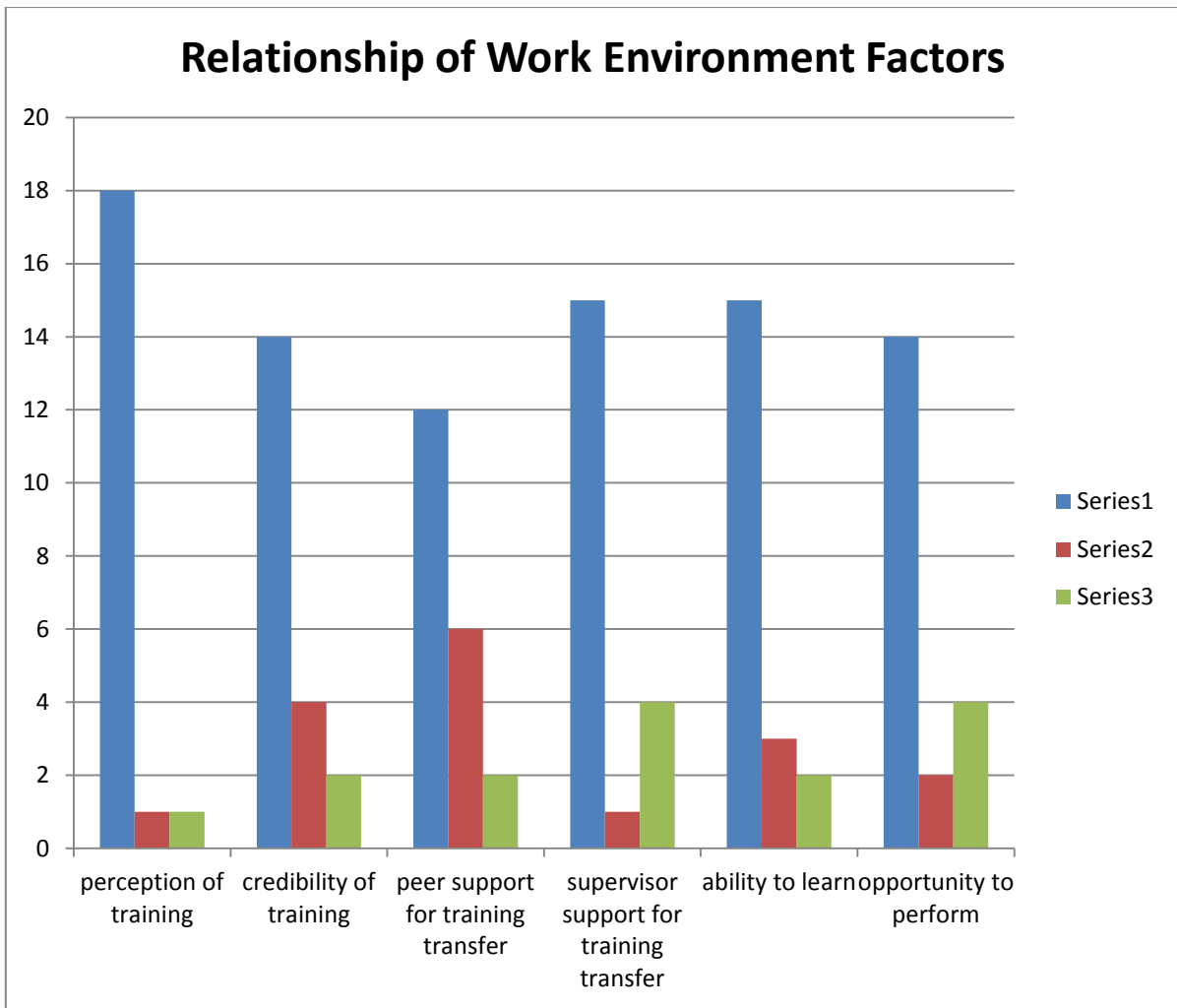
Fig 4.12 Comparative Frequency of Work Environment Factors

On comparing the major training factors on a graph, major work environment factors as identified by literature review being, perception of training, credibility, peer support, supervisor support, ability to learn and opportunity to perform. Series 1 represents yes, series 2 represents no and series 3 represents can't say it is evident that a majority of respondents identified positively with these factors. Thus there is a positive perception of these factors among Medical Representatives who were our respondent group.

4.2.2 Interpretation

From the analysis of responses of the interview schedule we can interpret the following:

i. The frequency of training is important for the human resource development of any organisation. In most of the pharmaceutical companies trainings are being conducted annually. Based on our survey as 50 % respondents said that trainings happened annually in their organisation.

ii. Organisations provide myriad trainings to its employees to equip them with new skills but it is important to see which trainings are important from the point of view of the employees themselves. Most of the respondents agreed that product training was more important and helpful to them. As 75 % respondents were agreed to it while only 15 % agreed to communication and 10 % to objection handling training.

iii. The training experience is important measure to see whether trainings are going in the right direction. Also the trainings conducted are benefitting the Medical Representatives as 80 % of the respondents said that their training experience was helpful.

iv. Perception of training or its perceived value is the worth of the training in the minds of the trainees. It is important work environment factor because if the perception of trainings is not good then trainees may not make an effort to transfer training. To this

90 % respondents were positive, thus indicating that they believed that attending training sessions helped them learn new skills.

v.   Credibility related to the trustworthiness of training. Credibility of training is an important work environment factor for training transfer. If the trainees doubt their training they will not make an effort to transfer training .If the training sounds impractical the trainees are unlikely to trust it. For this 70 % respondents agreed that trainings delivered what they purport to.

vi.   The academic qualification or education is an important work environment factor of the medical representatives as it enhances their level of learning and understanding thus helping them in transfer of training. Among respondents 45 % reported that Academic qualification was the most important individual characteristic that helped in training transfer.

vii. Peers or the colleagues form an important factor of work environment and are part of social support of the Medical Representatives and help in transfer of training through discussion after training session. When asked about the peer support in learning from training 60 % respondents said that peers supported them in learning.

viii. Supervisor support is also an important work environment factor as75% respondent were positive that supervisor support aided in learning from trainings through encouragement. It is also a variable of social support in the organisation.

ix. The locus of control is important part of psychological environment. When people believe that outside events control their actions it is called external locus of control and when they believe that they are responsible for their actions it is called internal locus of control. This refers to the factor whether they consider special support factors like peers and supervisors responsible for training transfer or themselves and their motivation as responsible for training transfer. When asked regarding what is more important in aiding learning 30% respondents identified peer, another 30 % identified supervisor while 40 % identified motivation which indicated that 60 % respondents had an external locus of control while 40 % had an internal locus of control.

x. Ability refers to the capability of grasping new skills; it is one of the work environment factors which help transfer training. Out of all 75% respondents said they were able to learn something from each training session that they attend reflecting their trainability or ability to learn.

xi. Opportunity to perform refers to using the training when the opportunity arises. A majority of respondents 70 % in total responded positively to being able to use their learning on the job thus they were positive about the opportunity to perform.

xii. Studying the graph figure 5.12 of the work environment factors for training transfer we can say that the relation between the factors appears positive. As the respondents identify them positively. From the comparative analysis of the frequencies of each factor of work environment it is evident that the respondents identify each factor

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certainly. The factors share a positive relationship due to their affirmative perception in the opinion of the respondents.

CHAPTER V

DATA ANALYSIS AND INTERPRETATION

Analysing Effect of Work Environment Factors on Training Transfer and Transfer Maintenance

5.1 INTRODUCTION

The work environment encompasses the supports- in organisation, the organisation climate and individual factors *.Lim and Johnson (2002)* stated the work environment factors can be separated into two subcategories a) factors that relate to the work and b) factors related to people. *Baldwin and Ford (1988)* organized their qualitative review around a model of training inputs (trainee characteristics, training design, and work

environment), training outputs (acquisition of knowledge and skills during training), and conditions of transfer (generalization of knowledge and skills acquired in training to the job and the maintenance of that learning over time on the job). Work environment factors include transfer climate, social support from supervisors and peers, and the constraints on or opportunities for performing learned behaviours on the job.The effect of these factors is twofold a) Learning of new skills and b) Use of new skills. The survey questionnaire is given is Annexure –II.

5.2 DATA ANALYSIS

5.2.1 Demographic Analysis

The first part of our survey questionnaire consisted of the demographic information regarding our respondents including gender, age, qualification, years of experience and number of training sessions attended. This has been analysed and summarised below:

Table 5.1: Gender

Gender	Frequency	Percentage
Male	171	84.24
Female	32	15.76

There were out of a total of 203 respondents, 171 were males (84.24%) while only 32 (15.76%) were females.

Table 5.2: Age

Age	Frequency	Percentage
20-25	48	23.65
25-30	62	30.54
30-35	53	26.11
35-40	40	19.70

Among the respondents 48 people (23.65%) were between the age range of 20 to 25 years, 62 (30.54%) were between the age range of 25 to 30 years, 53 (26.11%) were between the age range of 30 to 35 years and 40 (19.70%) were between the age of 35 to 40 years. the maximum age out of respondents was 38 years and minimum being 23 years. The average age of the respondents was 29.59 years.

Table 5.3: Qualification

Qualification	Frequency	Percentage
Graduation	64	31.53%
Post graduate diploma	34	16.75%
Post graduate	57	28.08%
MBA	48	23.65%

A majority of the respondents were graduates which make 64 (31.53%), 34 (16.75%) had post graduate diploma degrees, 57 (28.08%) had post graduate degrees and 48 (23.65%) has done MBA.

Table 5.4: Experience in the sector

Experience (Years)	Frequency	Percentage
0-5	117	57.64%
5-10	66	32.51%

| 10-15 | 20 | 9.85% |

We can infer that the range of experience of the respondents varied as most respondents in the survey had the experience of around 6 months to 15 years. 117 respondents had an experience of 0 to 5 years which formed the majority group here with 57.64% ,66 respondents had experience of 5 to 10 years around 32.51% and only 20 respondents had experience ranging from 10 to 15 years which is 9.85%. The average work experience of our respondent group was 5.11 years.

Table 5.5: Number of trainings attended

No. Of Trainings Attended	Frequency	Percentage
0-5	67	33%
5-10	62	30.54%
10-15	42	20.69%
15-20	22	10.84%
20-25	10	4.93%

The results also showed that the pharmaceutical companies were conducting regular training sessions with 33 % which makes of 67 respondents reporting that they had attended at least 5 training sessions and 30.54 % or 62 persons reporting that had attended up to 10 training sessions in the course of their work while only 4.93% reporting that they had attended around 25 sessions of training. On an average they had attended about 13.65 trainings.

5.2.2 Response Frequency Analysis

The questions were asked from the medical representatives of different pharmaceutical companies. They were asked to rate their satisfaction on two scales a) Learning from Trainings and b) Using my Training. The two scales of the questionnaire represent Training transfer and Transfer Maintenance i.e. learning new skills from training programs and their use on the job. The two scales were named "Learning from training" and "Using my training respectively" .The frequencies of the variables recorded in the questionnaire for:

a) Learning from trainings is given in Table 5.6.

b) Using my trainings is given in Table 5.7.

a) Learning Scale: The first scale related learnings from the training with the work environment factors identified.

Table 5.6 Frequencies of Variables on Learning Scale

S.No.	Variables	Total	Frequency Of 1 (Dissatisfied)		Frequency Of 2 (Cant Say)		Frequency Of 3 (Satisfied)	
			Count	%	Count	%	Count	%
1	Ability	203	35	17.24	3	1.47	165	81.28
2	Personality	203	12	5.91	2	0.98	189	93.10
3	Academic Qualification	203	24	11.82	1	0.49	178	87.68
4	Experience	203	22	10.83	1	0.49	180	88.66
5	Supervisor Support	203	48	23.64	2	0.98	153	75.36
6	Peer Support	203	77	37.93	3	1.47	123	60.59
7	Motivation	203	54	26.60	4	1.97	145	71.42
8	Perception	203	60	29.55	2	0.98	141	69.45

9	Credibility	203	54	26.60	1	0.49	148	72.90
10	Training Transfer	203	25	12.31	3	1.47	175	86.20
11	Time Lapse	203	36	17.73	5	2.46	162	79.80
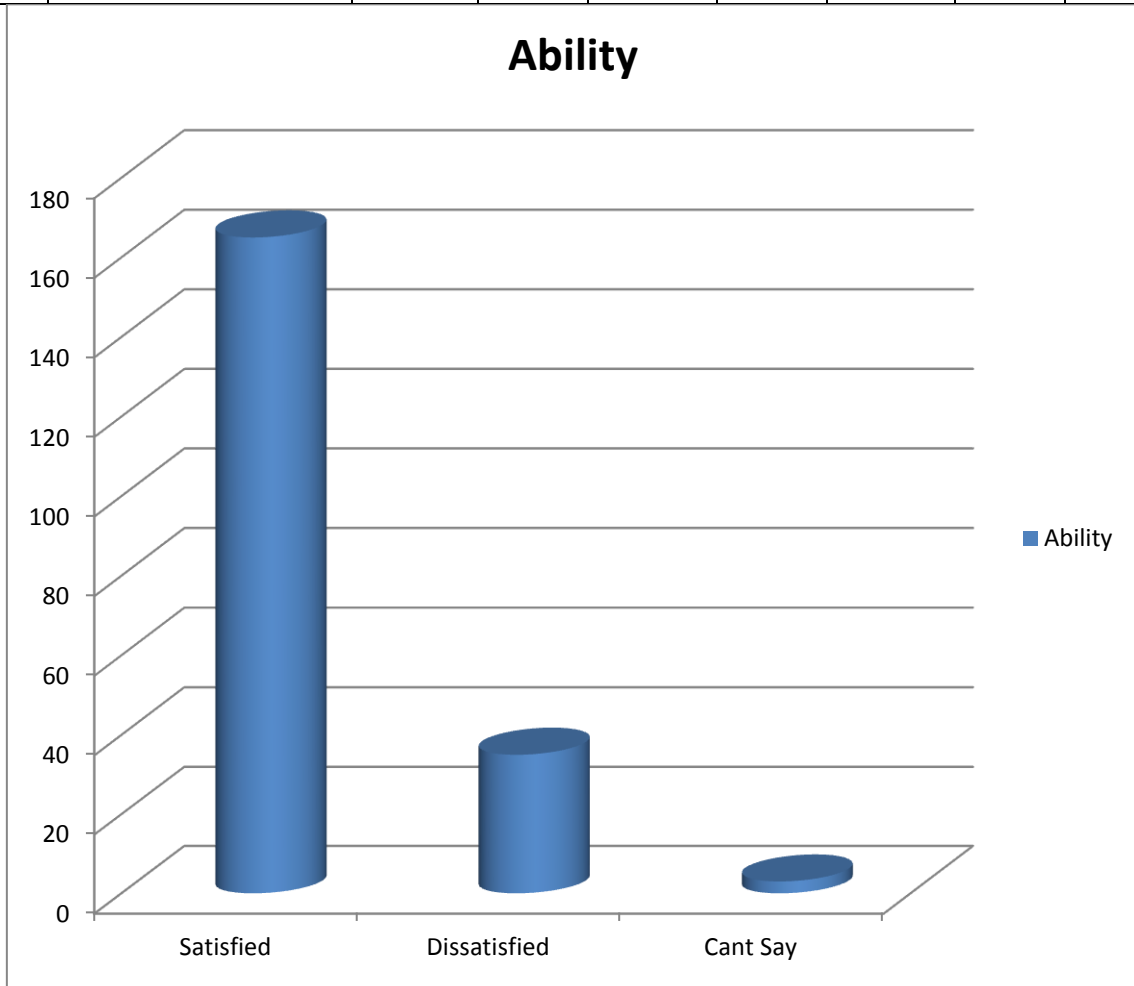
Fig 5.1 Frequency for Ability

The figure 5.1 marks the satisfaction of respondents in our survey regarding the use of their ability in learning from training programs. Ability here refers to the trainability of the trainee group or the ability to grasp knowledge. This variable represents the respondent's satisfaction with the use of his ability for learning new skills from trainings. The question put forward

was in the form of self rating to the query 'I learn new skills every time I attend a training program'.The respondents were required to mark on a scale of 1 to 3 their satisfaction 3 being satisfied and 1 being dissatisfied .81 % respondents were satisfied while only 17 % were dissatisfied with the use of their ability for learning new skills from training programs.
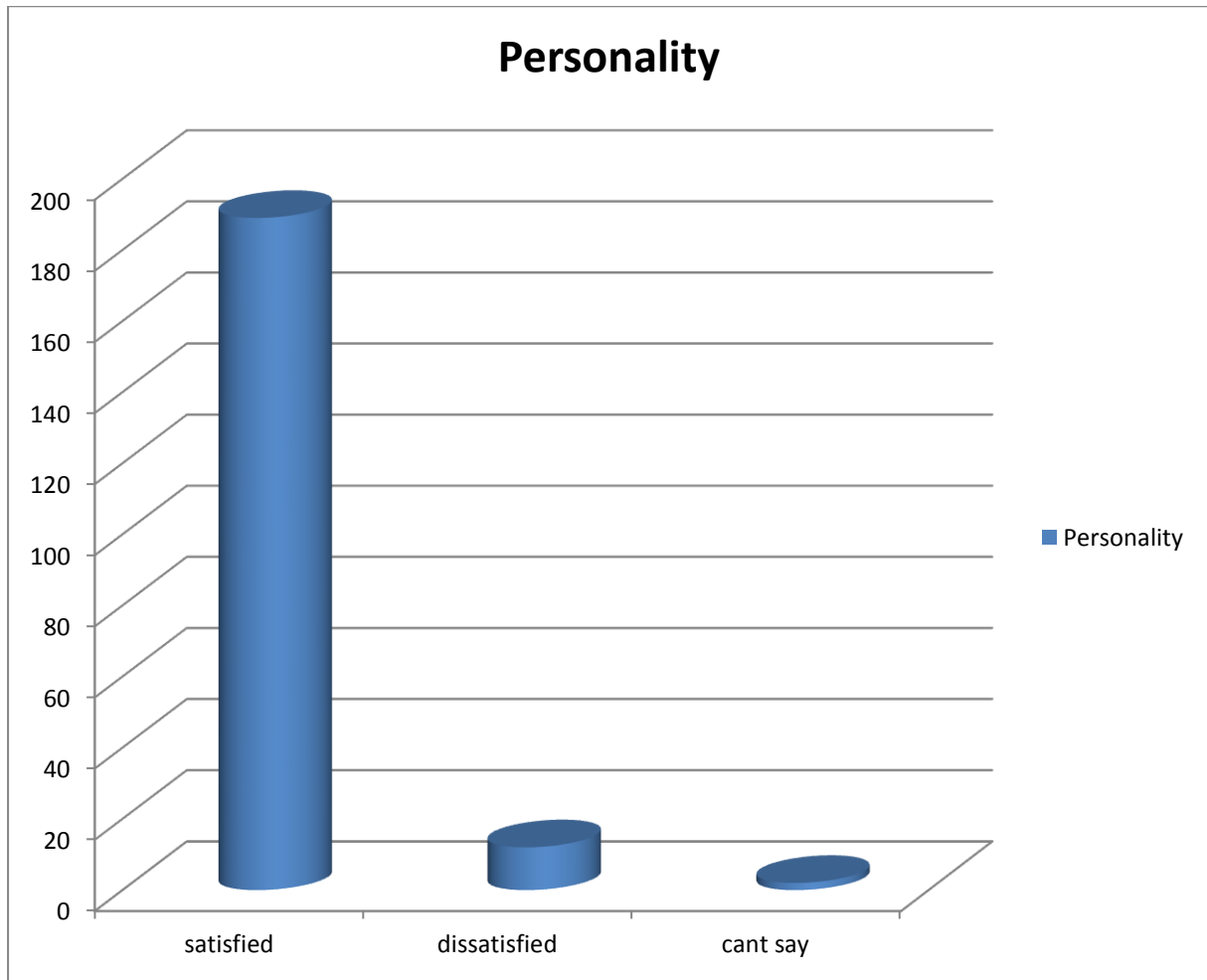
Fig 5.2 Frequency for Personality

The above figure marks the satisfaction of respondents in our survey regarding the use of their personality traits in learning from training programs. Personality refers to the sum totality of how individual responds to the stimuli in his environment. The question put forward was in the form of self rating to the query 'personal initiative and approach help me

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in learning new skills from training programs'.The respondents were required to mark on a scale of 1 to 3 their satisfaction 3 being satisfied and 1 being dissatisfied .93 % respondents were satisfied while 12 % were dissatisfied.
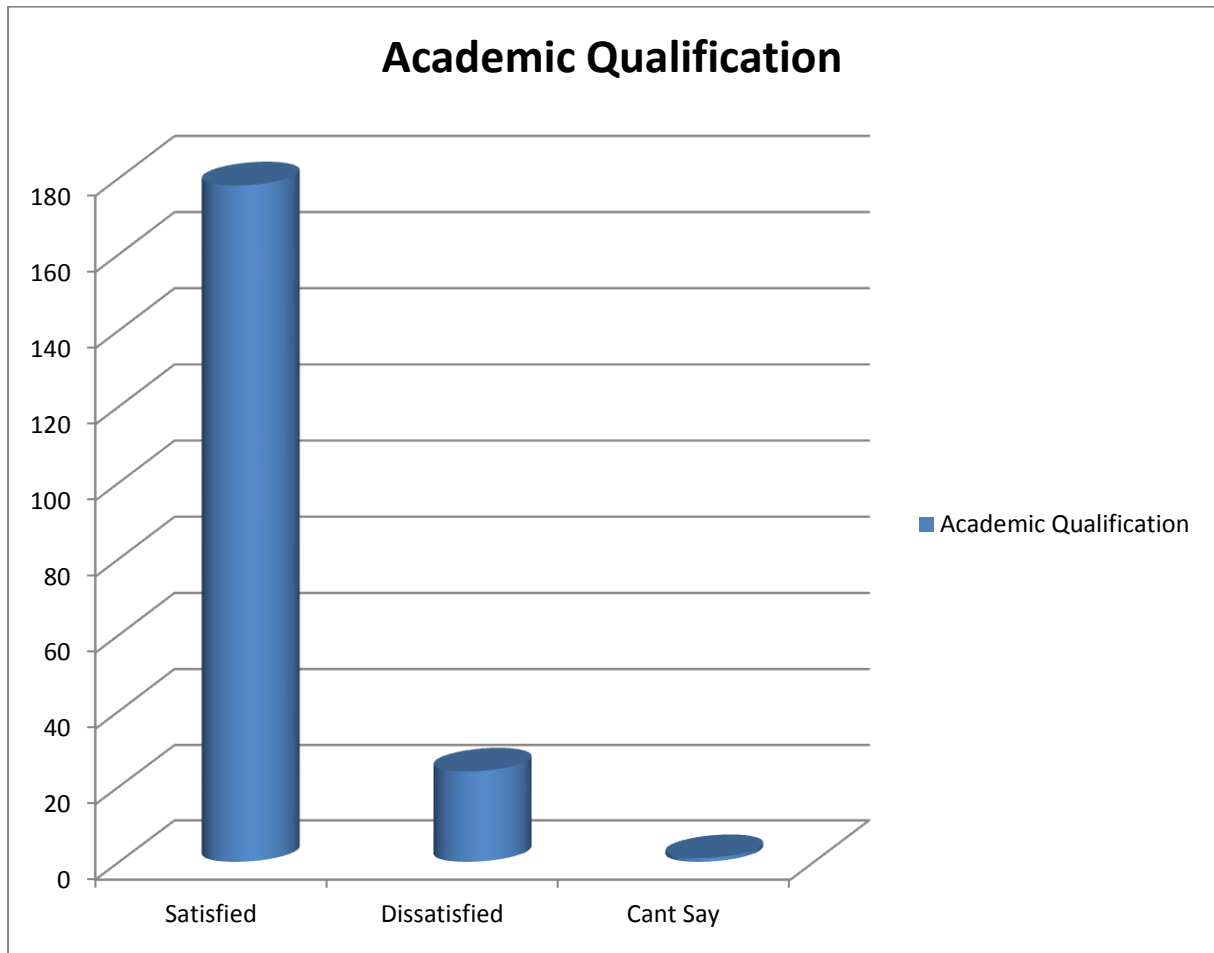
Fig 5.3 Frequency for Academic Qualification

Figure 5.3 represents the satisfaction of respondents from the use of their academic qualification or education in learning from the trainings they attend. Academic qualification refers to the formal education they have had and on this scale their satisfaction is measured in relevance to learning derived from training. The question put forward was in the form of self rating to the query 'academic qualification is useful in learning new skills from training

programs in my organisation'.The respondents were required to mark on a scale of 1 to 3 their satisfaction 3 being satisfied and 1 being dissatisfied. 87% respondents were satisfied while 11 % were dissatisfied.
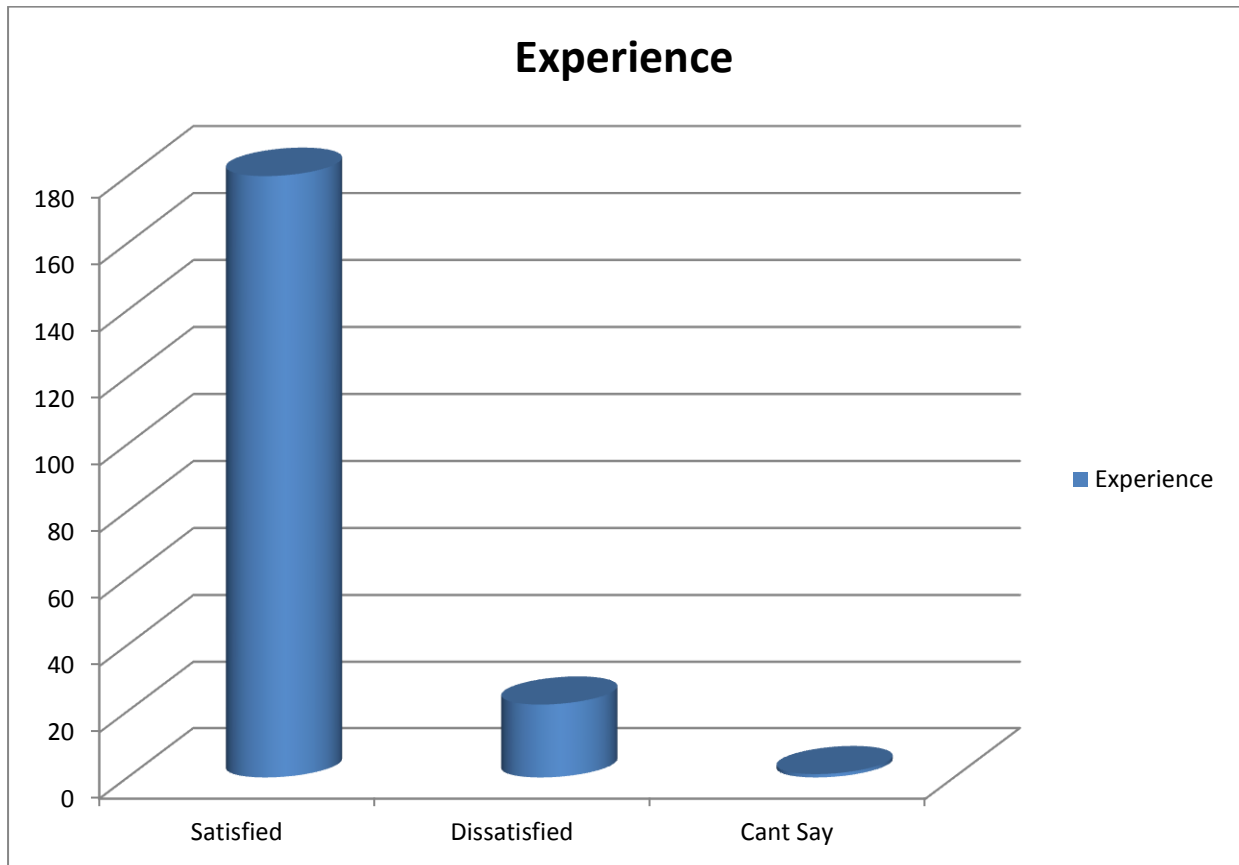
Fig 5.4 Frequency for Experience

The figure 5.4 represents the satisfaction of respondents from the use of experience in learning new skills from the training programs that they attend in their organization. Experience here refers to the work experience gained by the respondents by working in a specific field. It is an important work environment factor as it is intrinsic to the individual. The question put forward was in the form of self rating to the query 'experience comes in handy for learning new skills from training programs'.The respondents were required to mark

on a scale of 1 to 3 their satisfaction 3 being satisfied and 1 being dissatisfied. 88% respondents were satisfied while 10 % were dissatisfied on this query.
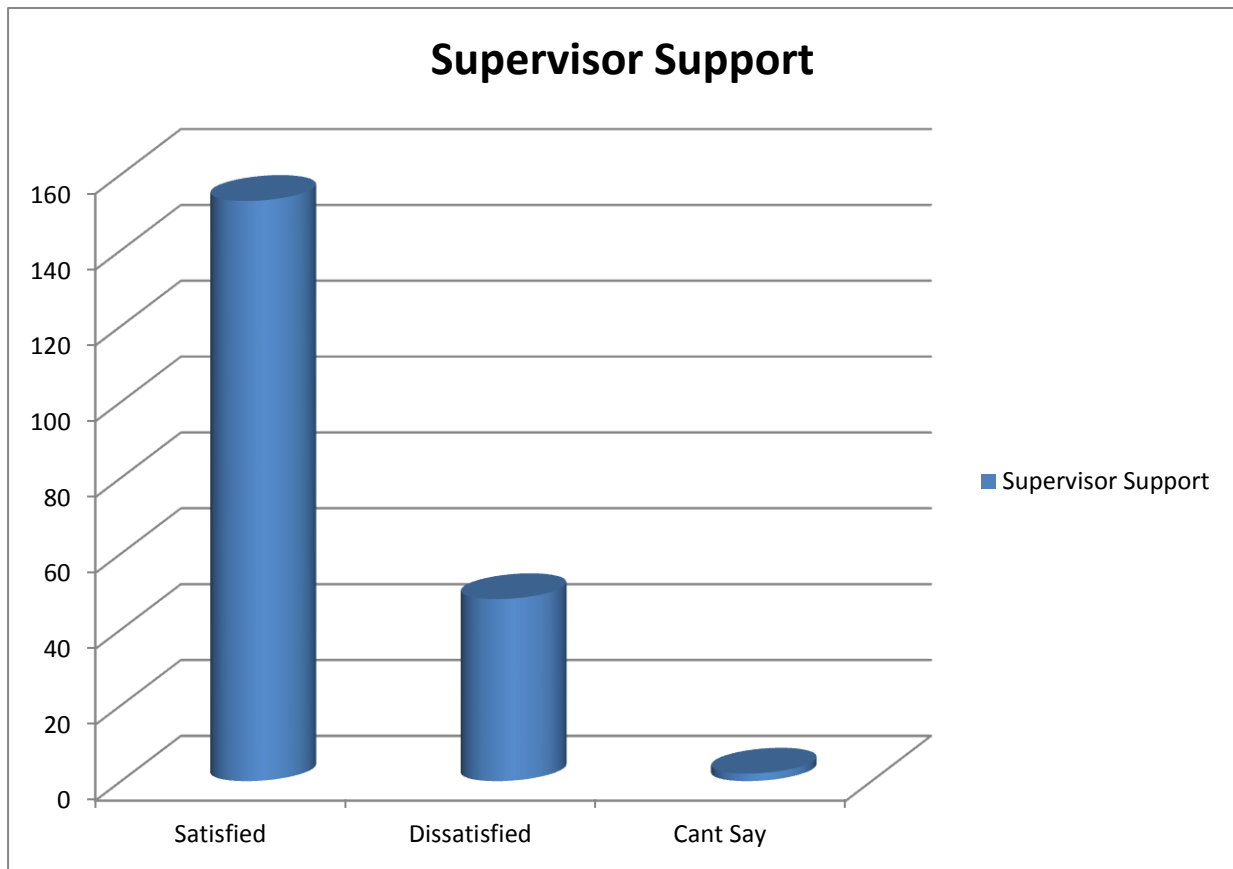
Fig 5.5 Frequency for Supervisor Support

The figure 5.5 represents the satisfaction of the respondents on a scale of 3 with supervisor support in learning from training programs. The question put forward was in the form of self rating to the query 'My supervisor encourages and supports my learning of new skills through discussions and appreciation'.The respondents were required to mark on a scale of 1 to 3 their satisfaction 3 being satisfied and 1 being dissatisfied. Out of 203 respondents 75 % were satisfied while 23 % were dissatisfied .Hence we can say that a majority of the respondents are satisfied with the support of supervisor**.** Supervisor support is important as it is one of the variables of social support in the organization.
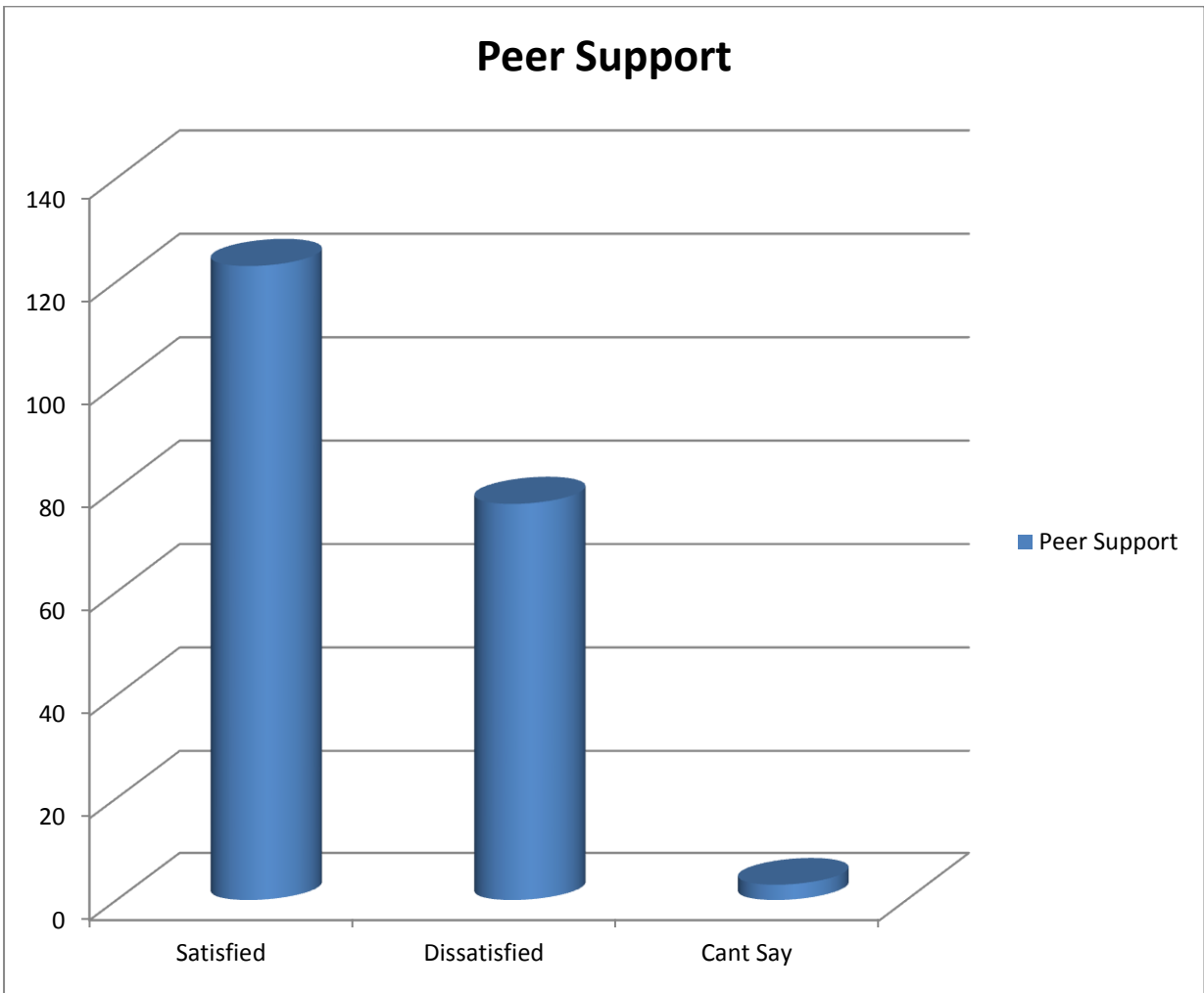
Fig 5.6 Frequency for Peer Support

The above figure represents the satisfaction derived from peer support for transfer of training or learning new skills from training. The question put forward was in the form of self rating to the query 'My peers are helpful and supportive in gaining insight into training and learning new skills by way of discussion'.The respondents were required to mark on a scale of 1 to 3 their satisfaction 3 being satisfied and 1 being dissatisfied .Out of 203, 60% respondents were satisfied while were approximately 38 % reported dissatisfied. Peer support is another

important variable in the social support in the organization .thus we can say that a majority of the respondents reported that they were satisfied from the peer support they received.
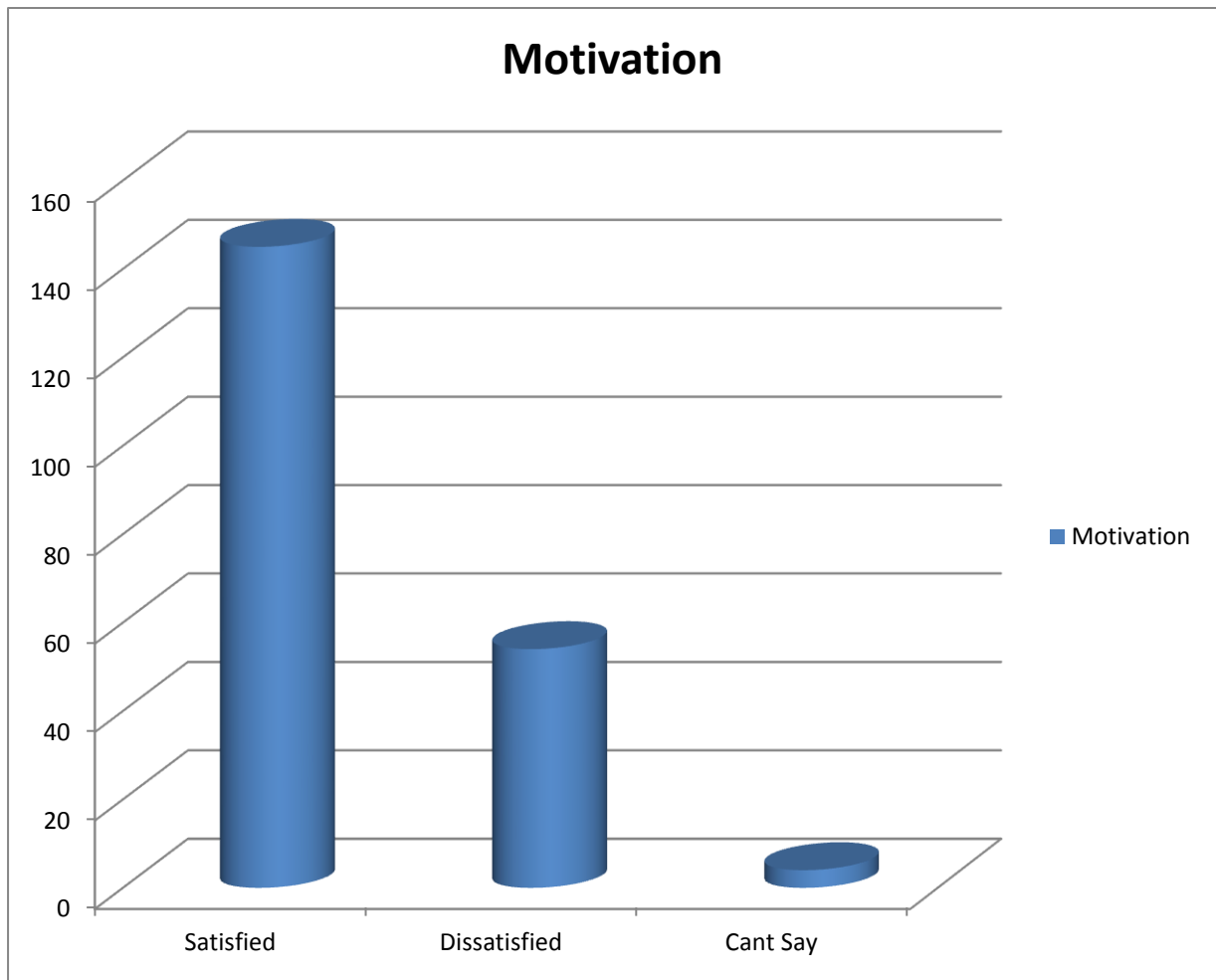
Fig 5.7 Frequency for Motivation

Figure 5.7 represents the motivation of the respondents for learning from the training programs they attend in their organization. Motivation is one of the important work environment factors for training transfer. Here we see it in respect of learning from training. If the employee is not motivated he may not learn from the training .It is a part of his psychological construct. The question put forward was in the form of self rating to the query 'Attending training sessions inspires me to learn new skills'.The respondents were required to mark on a scale of 1 to 3 their satisfaction 3 being satisfied and 1 being dissatisfied 71%

respondents reported satisfied and 26% reported dissatisfied regarding motivation they feel for learning new skills from training programs.
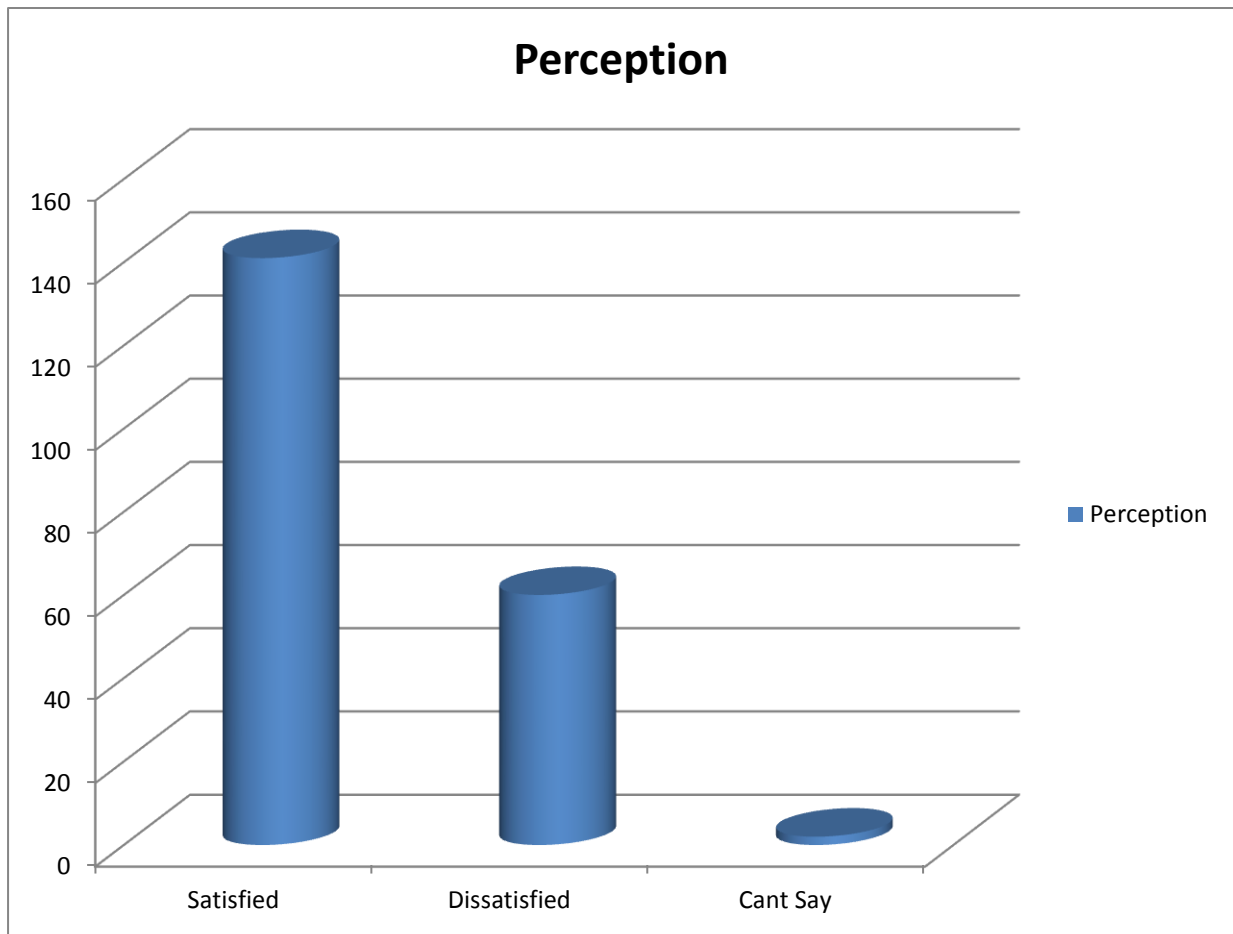
Fig 5.8 Frequency for Perception

Figure 5.8 represents the perception of training. Perception refers to the way the respondents see trainings as helping them, whether they see it as helpful or not affects their learning from the training programs. If they perceive the training to be useful to them they will make efforts to learn. But if they are not satisfied with the training they do not perceive it as adding any value they may not transfer the training to the job. The question put forward was in the form of self rating to the query 'Training sessions attended are important for my career growth and development as I learn new skills from them'.The respondents were required to mark on a

scale of 1 to 3 their satisfaction 3 being satisfied and 1 being dissatisfied 69% were satisfied, while 29% of respondents were dissatisfied. Thus a majority of the respondents had a positive perception of trainings for learning new skills.
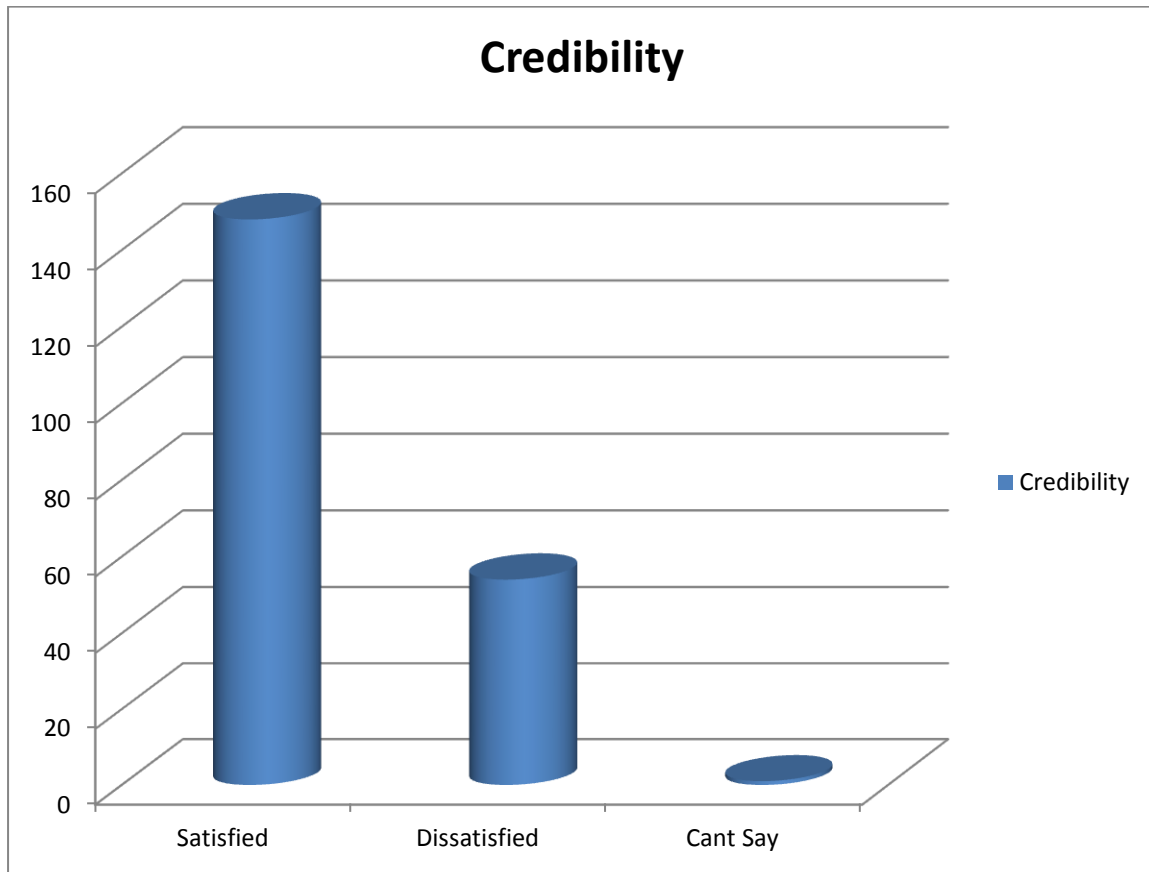
Fig 5.9 Frequency for Credibility

The figure 5.9 represents credibility of training. In this variable the respondents had to rate on a scale of 3 whether they believe attending training sessions helped them learn new skills. This construct is regarding the credibility of training. If the respondents believed the trainings as credible the reported satisfied. The question put forward was in the form of self rating to the query 'Attending training sessions helps me learn new skills and gain knowledge required for my day to day work'.The respondents were required to mark on a scale of 1 to 3 their

satisfaction 3 being satisfied and 1 being dissatisfied.73 % of respondents were satisfied while 26 % were dissatisfied.
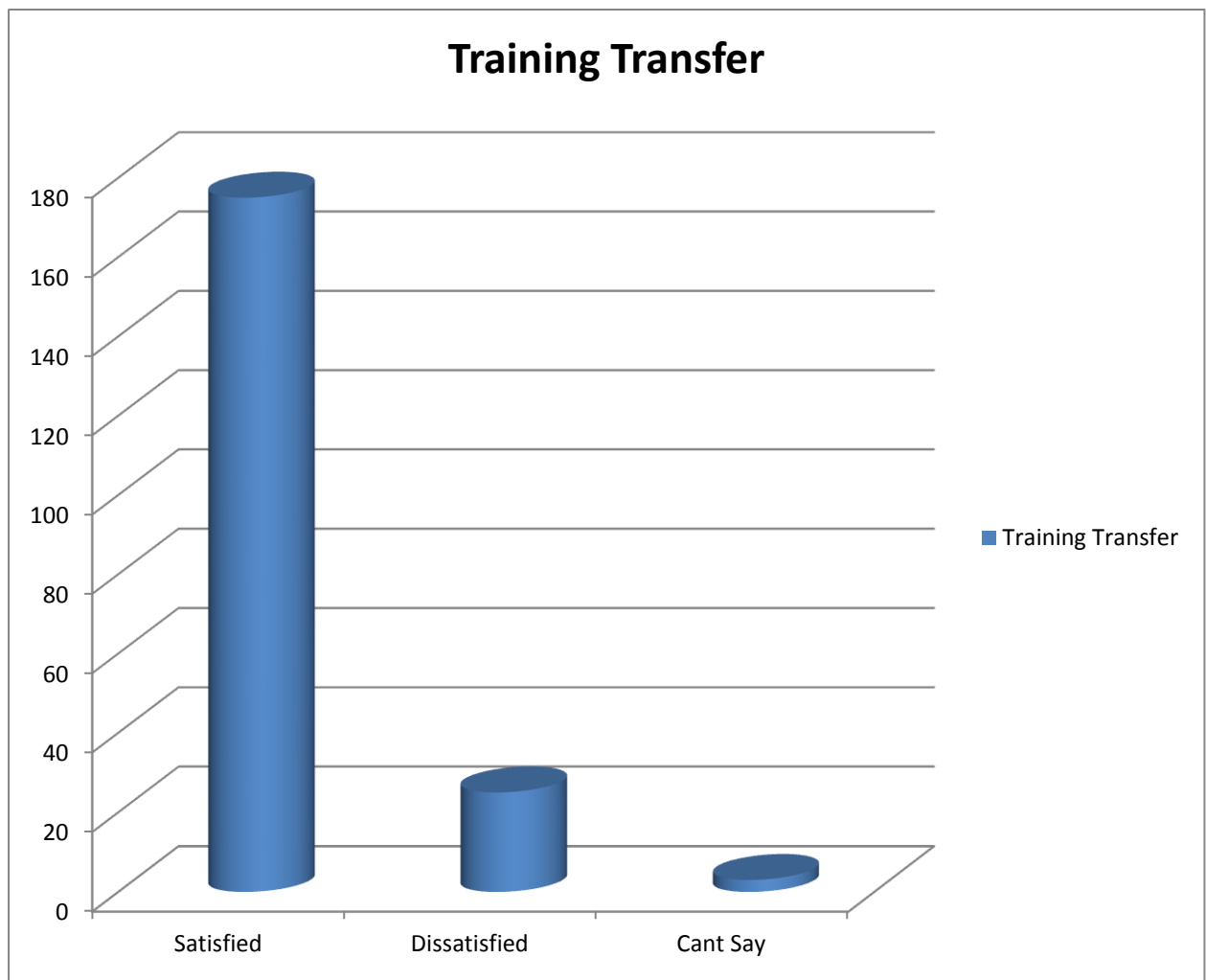
Fig 5.10 Frequency for Training Transfer

Figure 5.10 represents training transfer or learning derived by the respondents from trainings. The respondents were asked to rate their satisfaction regarding learning derived from attending training programs in their organizations. The question put forward was in the form of self rating to the query 'Attending training sessions helps me learn new skills for my job'.The respondents were required to mark on a scale of 1 to 3 their satisfaction 3 being

satisfied and 1 being dissatisfied .86 % respondents reported satisfied while 12% reported dissatisfied. Thus training transfer is taking place from training sessions to workplace.
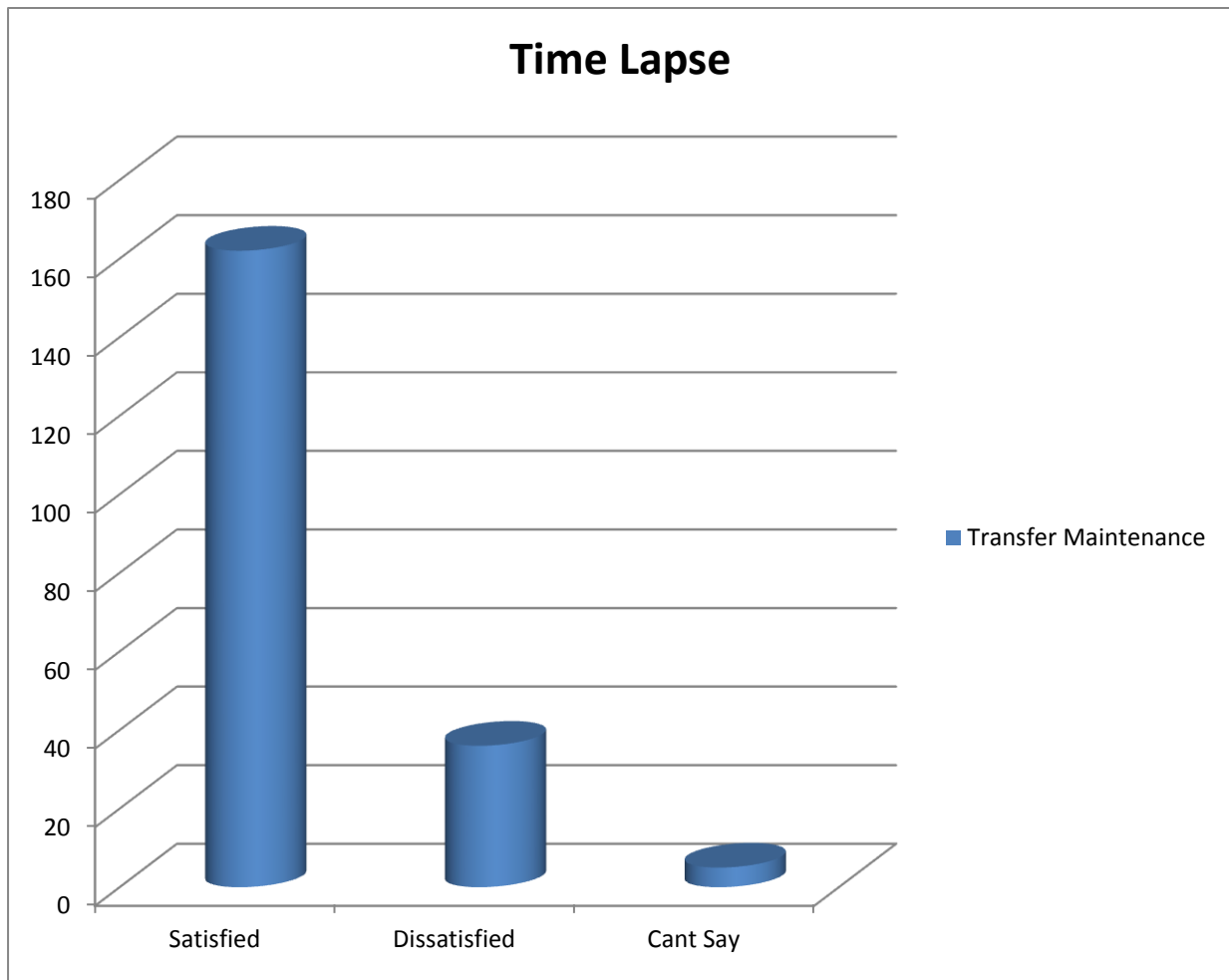
Fig 5.11 Frequency for Time Lapse

The above figure refers to the effect of time lapse or gap on learning derived from trainings. The respondents were asked if time lapse between training sessions and field work hinders in retention of learning from training sessions. The question put forward was in the form of self rating to the query 'Time lapse between training sessions and field work hinders in retention of learning from training sessions'.The respondents were required to mark on a scale of 1 to 3

their satisfaction 3 being satisfied and 1 being dissatisfied. 79 % respondents were satisfied or affirmative while approximately 18 % were dissatisfied or negative.

5.2.3 Interpretation of Learning Scale

The results of training transfer or learning scale have been interpreted as:

i. The ability of the individual helps in learning they derive from the training sessions attended. .81 % respondents were satisfied while only 17 % were dissatisfied with the use of their ability for learning new skills from training programs. Hence the majority of respondents are satisfied with the effect of ability on learning.

ii. Personality or the use of the employee characteristic, his personal construct in learning is another important factor that affects learning. As a majority 93 % respondents were satisfied while 12 % were dissatisfied.

iii. Education or the academic qualification is another important factor to which the respondents agree as affecting training transfer. 87% respondents were satisfied while 11 % were dissatisfied. Thus a majority of respondents identified it as affecting training transfer.

iv. Experience of the Medical Representatives in their job and field of work helps them in developing personal ways and means of learning from the trainings that they attend. 88 % respondents were satisfied that their experience helps them learn while 10 % were dissatisfied with the same.

v. The supervisor support has been recognized as one of the work environment factors of training transfer. In our survey 75 % were satisfied that the encouragement from supervisor aids their learning while 23 % were dissatisfied.

vi. Peer support has also been identified as work environment factors affecting training transfer. In our survey 60 % were satisfied that peer support helps them learn from training sessions and 38 % were dissatisfied with the same.

vii. Motivation or impetus provided by the training program for learning new skills is a psychological work environment factor. Without motivation there may be no will to learn or transfer new skills to job. In our survey 71% reported satisfied while 26% reported dissatisfied with the factor.

viii. Perception refers to how the trainees perceived their training. If they see training being useful and adding value they would perceive it well and try to learn more from it. In our survey 69 % were satisfied from this factor while 29 % were dissatisfied.

ix. Credibility of training refers to its reliability, it relates to whether the trainings provided are dependable from point of view of the Medical Representatives or not. It is important for training transfer to take place as people will not learn what they cannot trust. 73% respondents in our survey were satisfied with it and 26% are dissatisfied.

x. Training transfer here is the outcome of training and not a factor, referring in our survey on this scale to learning of new skills from training programs. For this, in our survey 86 % were satisfied from learnings gained while 12% were dissatisfied.

xi. Time lapse refers to the gap between learning and point of its application or use on the job by the trainees. In our survey 79% were satisfied that time lapse affects training retention while 18% were dissatisfied.

b) Usage Scale: The second scale relates the use of training with the work environment factors:

Table 5.7 Frequencies of Variables on Usage Scale

S.No.	Variables	Total	Frequency of 1 (Dissatisfied)		Frequency of 2 (Cant Say)		Frequency of 3 (Satisfied)	
			Count	%	Count	%	Count	%
1	Ability	203	38	18.72	8	3.94	157	77.34
2	Personality	203	11	5.419	3	1.48	189	93.1
3	Academic Qualification	203	28	13.79	2	0.99	173	85.22
4	Experience	203	31	15.27	5	2.46	167	82.27
5	Supervisor Support	203	26	12.81	15	7.39	162	79.8
6	Peer Support	203	39	19.21	19	9.36	145	71.43
7	Motivation	203	46	22.66	21	10.3	136	67
8	Perception	203	38	18.72	32	15.8	133	65.52
9	Credibility	203	12	5.91	35	17.2	156	76.85

| 10 | Transfer Maintenance | 203 | 36 | 17.73 | 7 | 3.45 | 160 | 78.82 |
| 11 | Time Lapse | 203 | 56 | 27.59 | 8 | 3.94 | 139 | 68.47 |
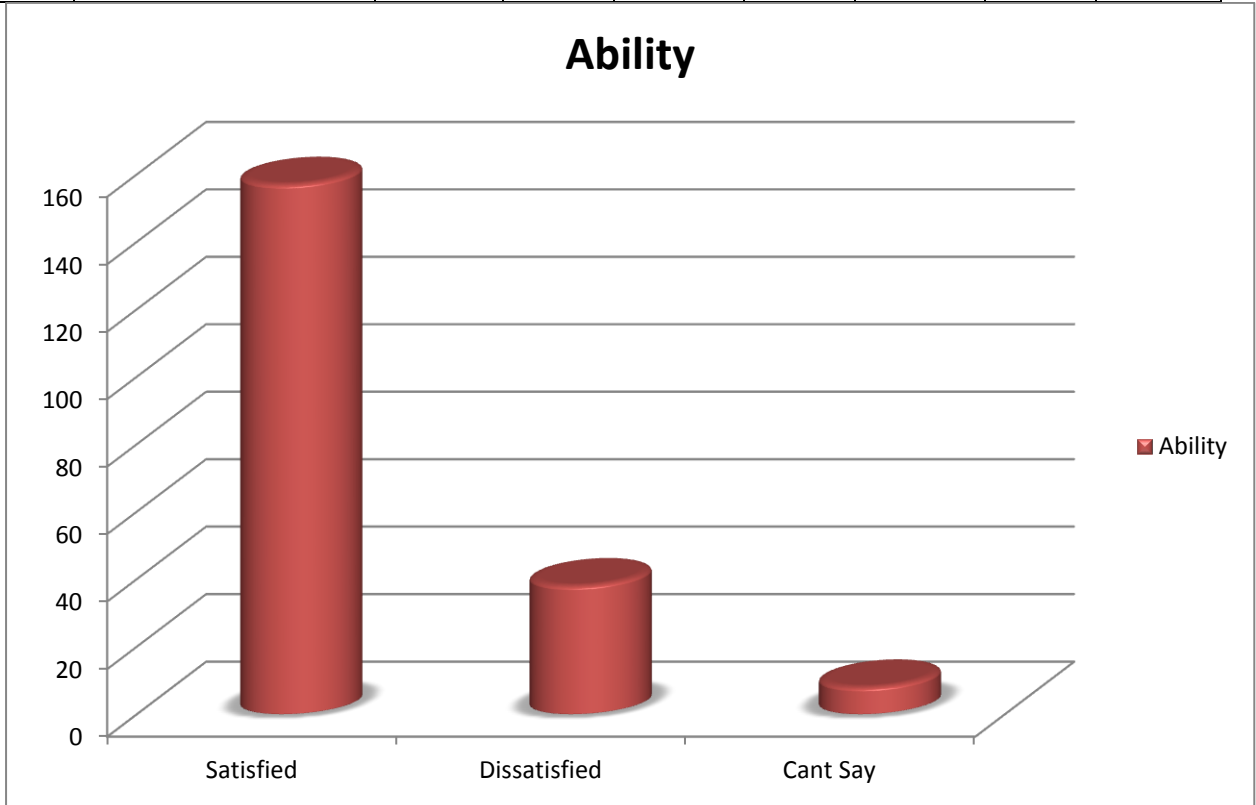
Fig 5.12 Frequency for Ability

The figure 5.12 marks the satisfaction of respondents in our survey regarding importance of their own ability in using new skills learnt from training programs. Ability here refers to the trainability of the trainee group or the ability to use their new skills. This variable represents the respondent's satisfaction with the use of his ability for application of new skills learnt from trainings. The question put forward was in the form of self rating to the statement 'I am able to use the new skills that I learn from training programs in my job because of my willingness to learn'.The respondents were required to mark on a scale of 1 to 3 their satisfaction 3 being satisfied and 1 being dissatisfied .77 % respondents were satisfied while

only 18 % were dissatisfied with the use of their ability for learning new skills from training programs.
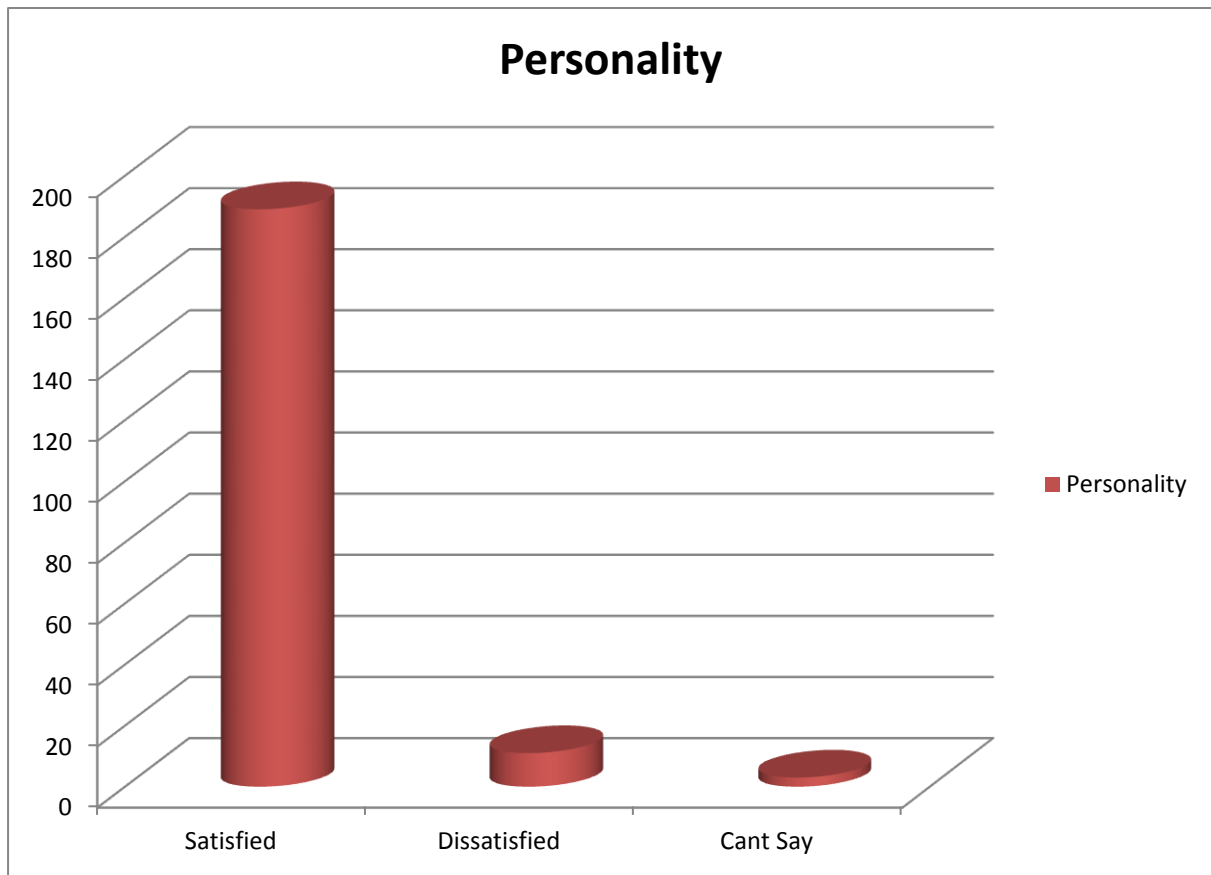
Fig 5.13 Frequency for Personality

The above figure marks the satisfaction of respondents regarding importance of personality in in using the new skills learnt from training programs. Personality refers to the sum totality of how individual responds to the stimuli in his environment. The question put forward was in the form of self rating of the statement 'My personal initiative and approach help me master and use new skills from training and use them in my work'.The respondents were required to mark on a scale of 1 to 3 their satisfaction 3 being satisfied and 1 being dissatisfied .'93 % respondents were satisfied while 5% were dissatisfied.
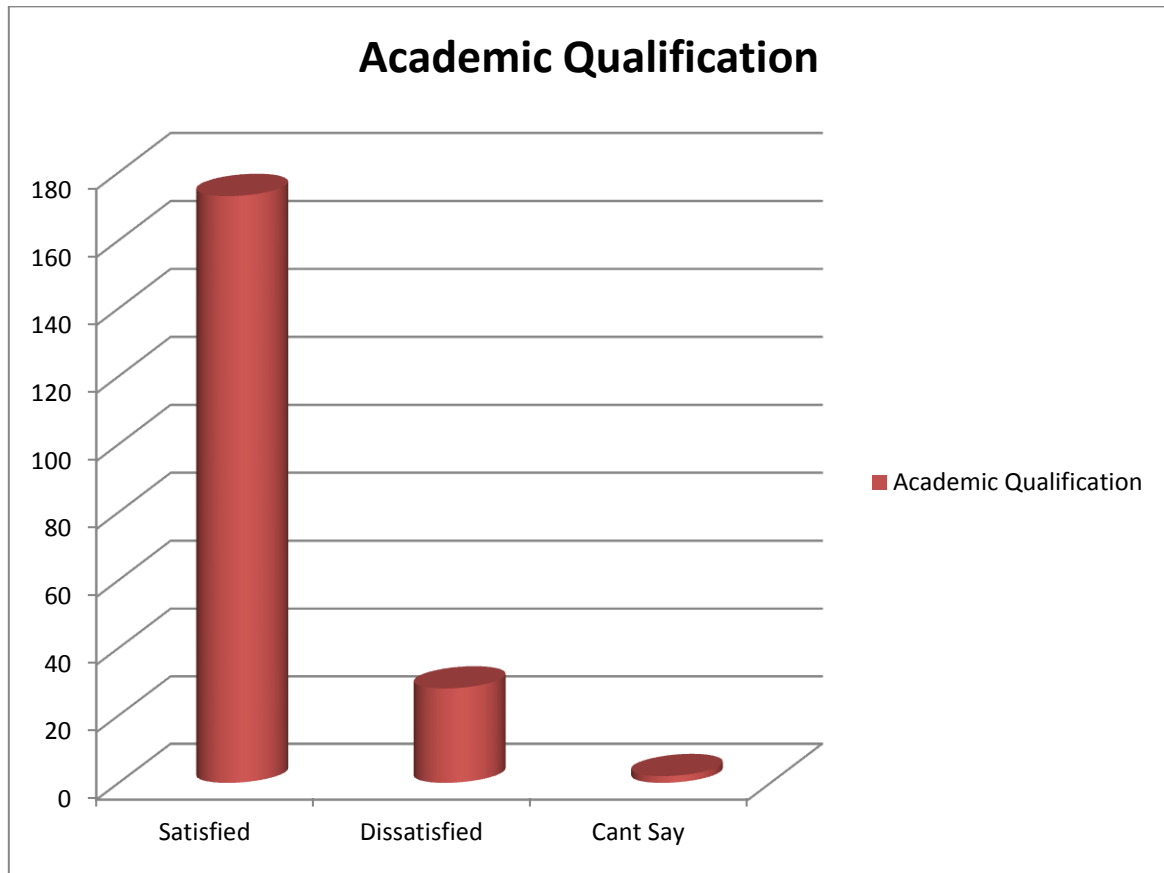
Fig 5.14 Frequency for Academic Qualification

Figure 5.14 represents the satisfaction of respondents in relation to importance of academic qualification or education in using their new skills from the trainings they attend. Academic qualification refers to the formal education they have had and on this scale their satisfaction is measured in relevance to using their skills derived from training on their job. The question put forward was in the form of self rating to the statement 'my academic qualification equips me to master new skill and use them at work'.The respondents were required to mark on a scale of 1 to 3 their satisfaction 3 being satisfied and 1 being dissatisfied. 85% respondents were satisfied while 13 % were dissatisfied.
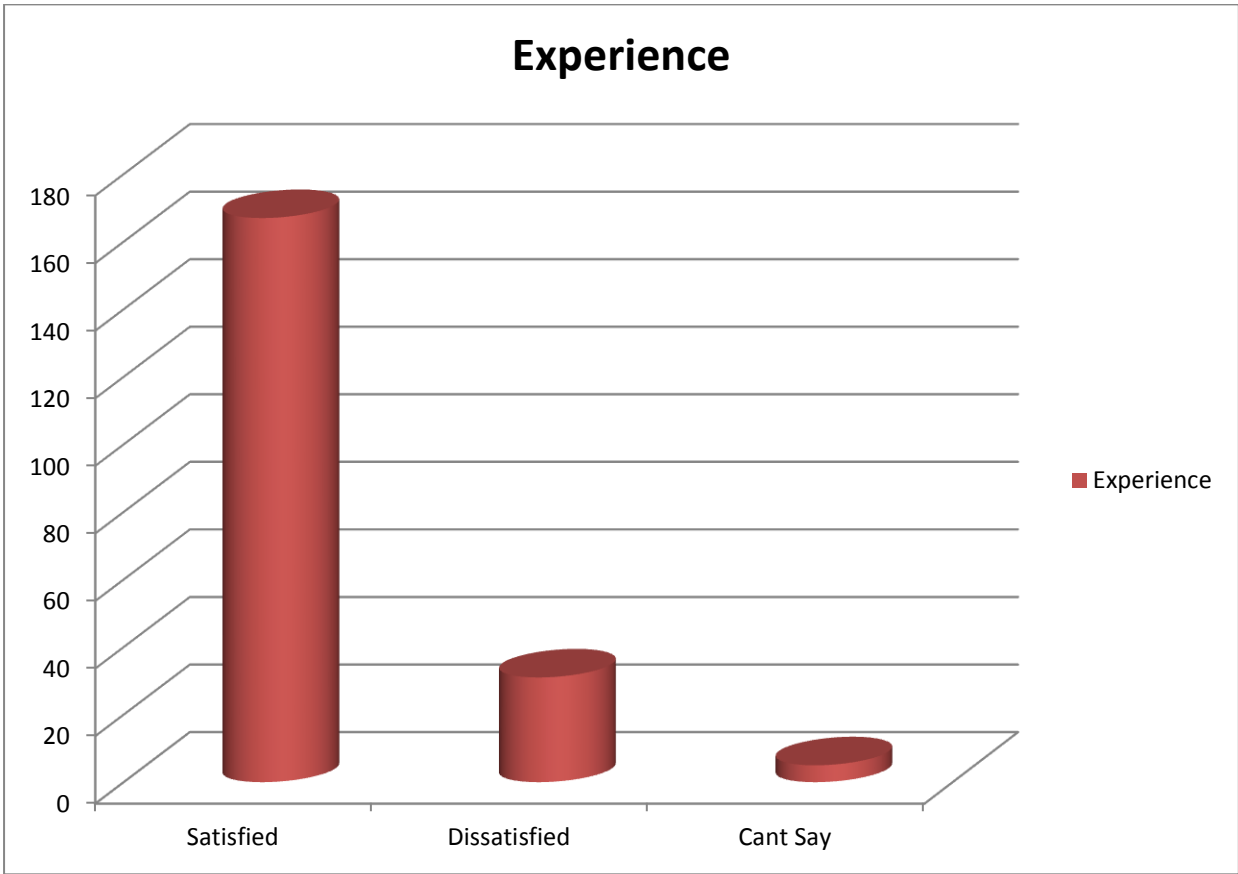
Fig 5.15 Frequency for Experience

The figure 5.15 represents the satisfaction of respondents in relation to importance of experience in use of new skills learnt from the training programs that they attend in their organization. Experience here refers to the work experience gained by the respondents by working in a specific field. It is an important work environment factor as it is intrinsic to the individual. The question put forward was in the form of self rating to the statement 'My experience in this field helps me in the use of new skills learnt from training at workplace'.The respondents were required to mark on a scale of 1 to 3 their satisfaction 3 being satisfied and 1 being dissatisfied. 82% respondents were satisfied while 15 % were dissatisfied on this query.

175
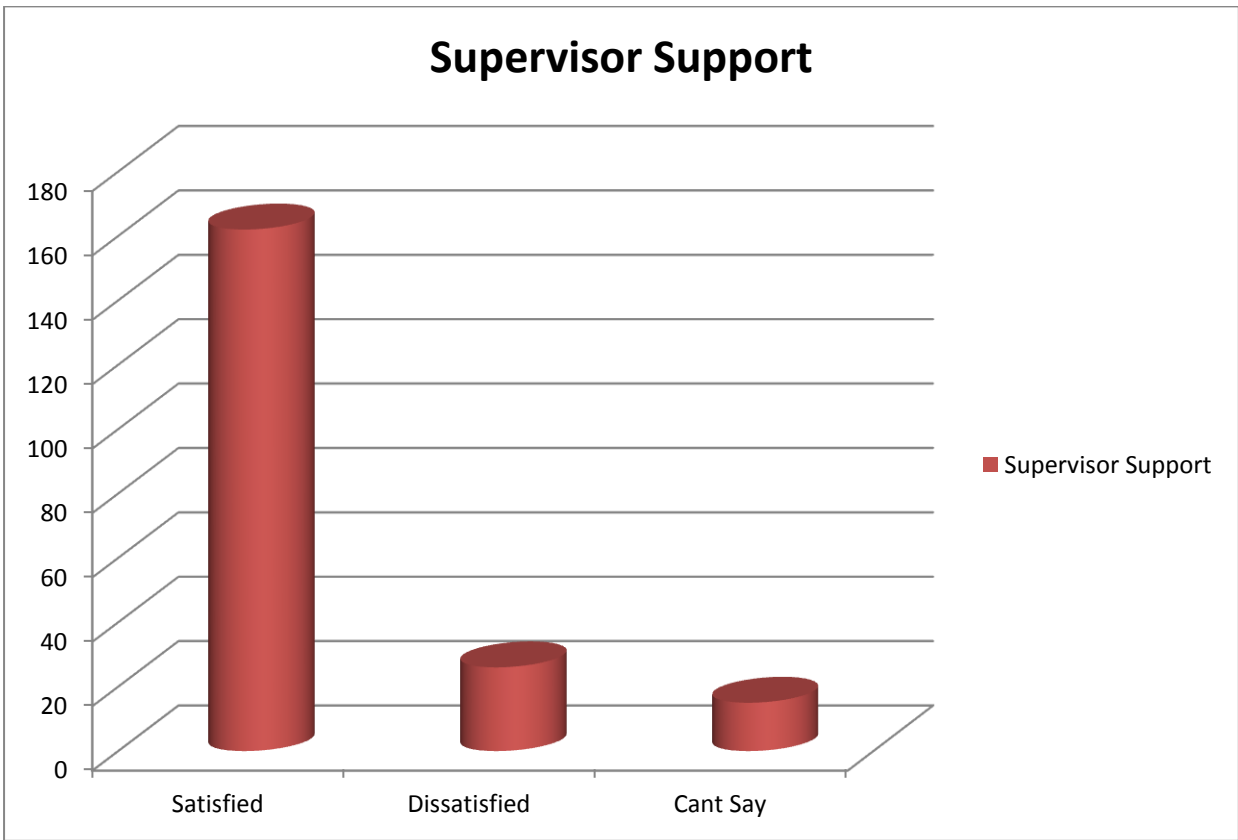
Fig 5.16 Frequency for Supervisor Support

The figure 5.16 represents the satisfaction of the respondents on a scale of 3 with supervisor support in using their training. The question put forward was in the form of self rating to the statement '. My Supervisor encourages and guides me to use new skills learnt from training at work'.The respondents were required to mark on a scale of 1 to 3 their satisfaction 3 being satisfied and 1 being dissatisfied. Out of 203 respondents 79 % were satisfied while 12 % were dissatisfied .Hence we can say that a majority of the respondents are satisfied with the support of supervisor**.** Supervisor support is important as it is one of the variables of social support in the organization.
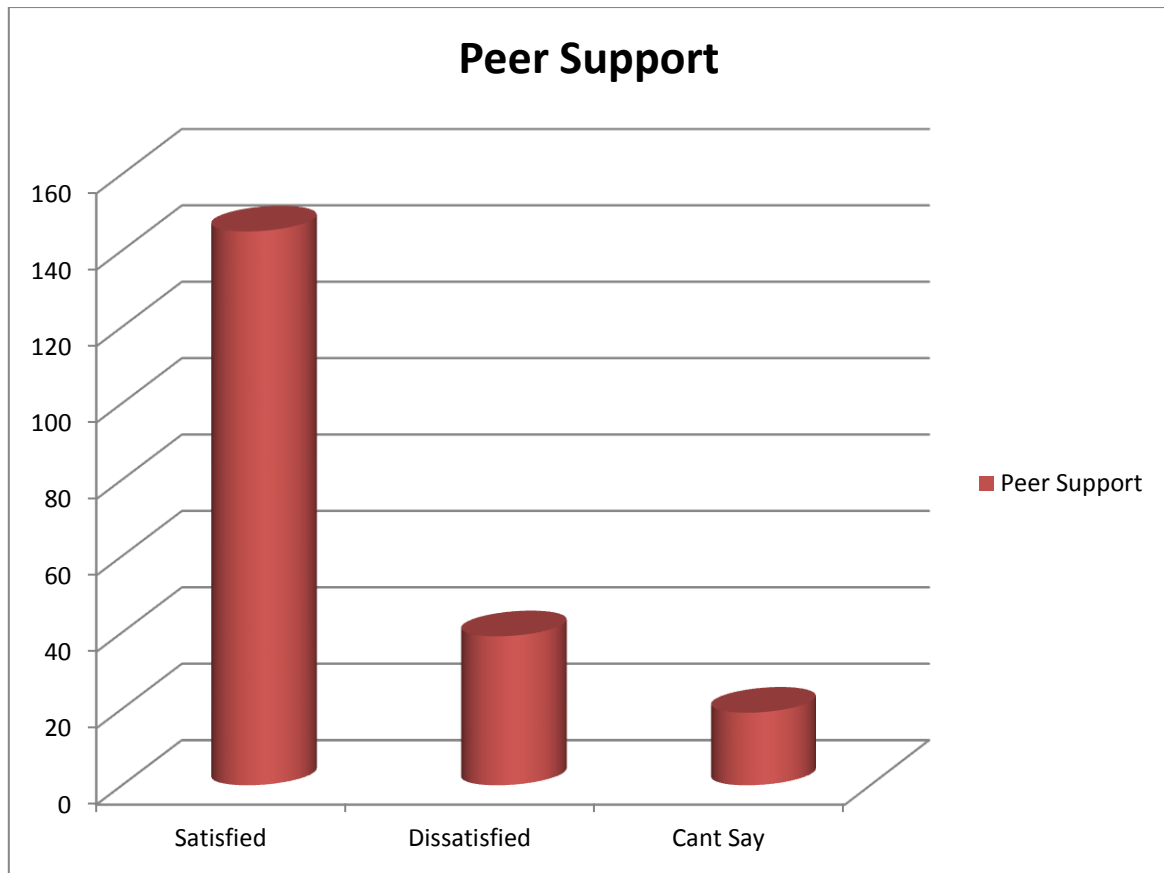
Fig 5.17 Frequency for Peer Support

The above figure represents the satisfaction derived from peer support for use of new skills learnt from training. The question put forward was in the form of self rating to the statement 'My peers are helpful in the use of new skills at work as they discuss the use and encourage the use of new skills'.The respondents were required to mark on a scale of 1 to 3 their satisfaction 3 being satisfied and 1 being dissatisfied .Out of 203, 71% respondents were satisfied while were approximately 19 % reported dissatisfied. Peer support is another important variable in the social support in the organization .thus we can say that a majority of the respondents reported that they were satisfied from the peer support they received.
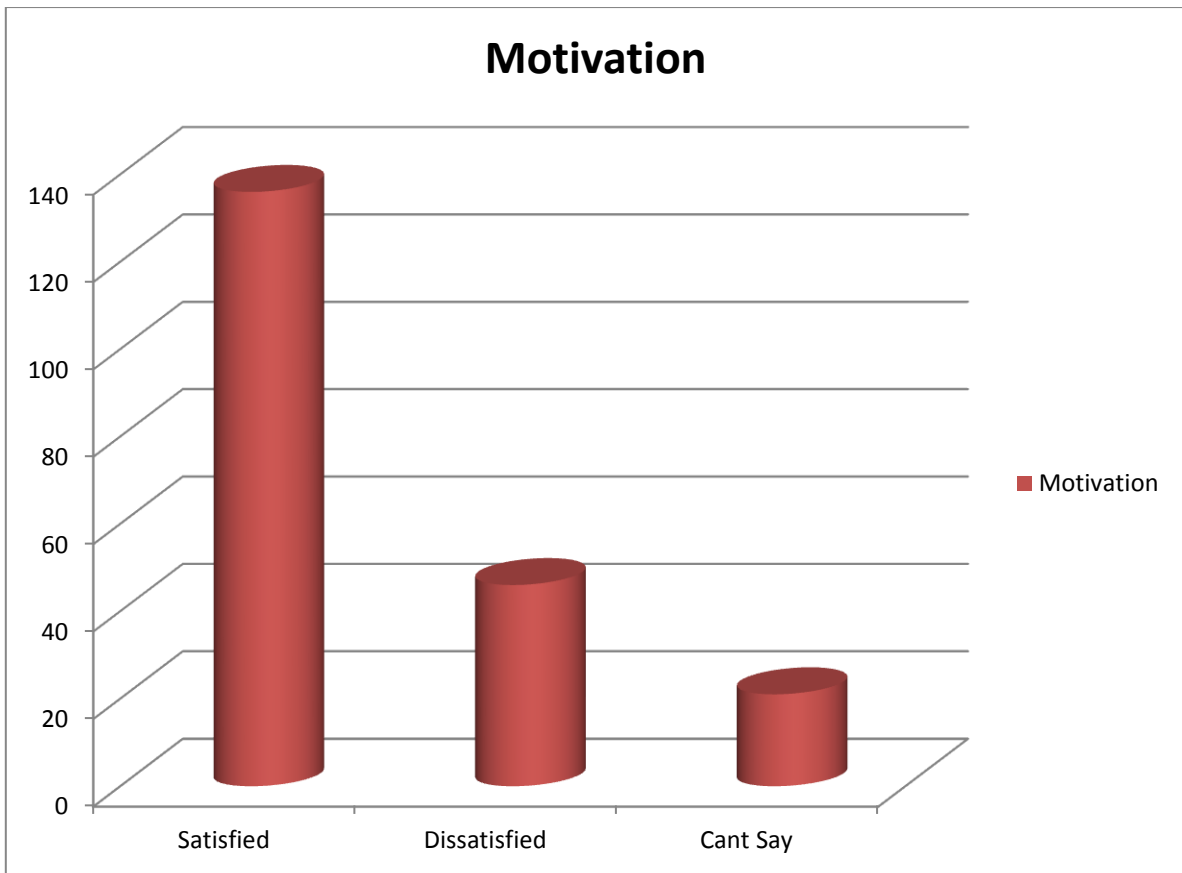
Fig 5.18 Frequency for Motivation

Figure 5.18 represents the motivation of the respondents for use of training at work. Motivation is one of the important work environment factors for training transfer. Here we see it in respect of using one's training. If the employee is not motivated he may not learn from the training .It is a part of his psychological construct. The question put forward was in the form of self rating to the statement 'Attending training sessions inspires me to learn new skills'.The respondents were required to mark on a scale of 1 to 3 their satisfaction 3 being satisfied and 1 being dissatisfied 67% respondents reported satisfied and 22% reported dissatisfied regarding motivation they feel for using new skills from training programs.
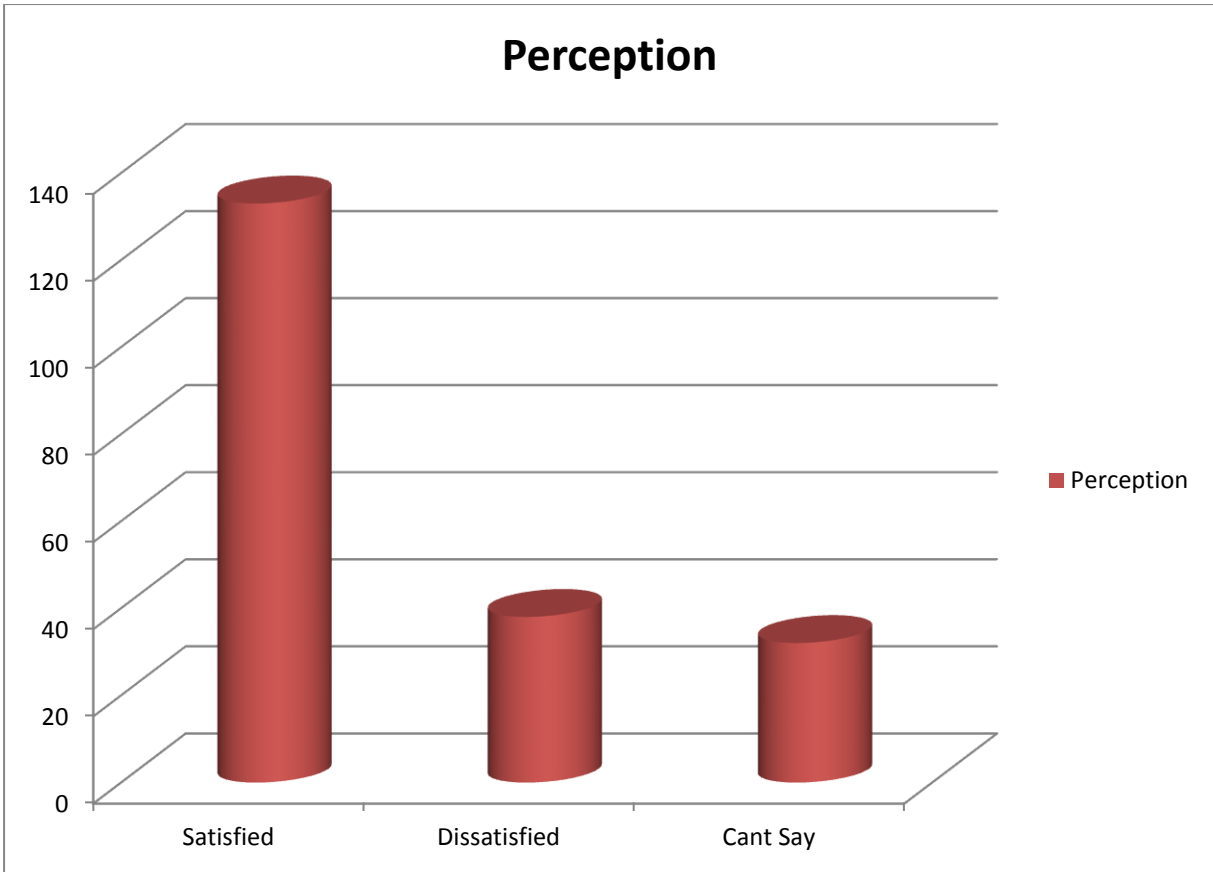
Fig 5.19 Frequency for Perception

Figure 5.19 represents the perception of training. Perception refers to the way the respondents see trainings as helping them, whether they see it as helpful or not affects their learning from the training programs. If they perceive the training to be useful to them they will make efforts to learn. But if they are not satisfied with the training they do not perceive it as adding any value they may not transfer the training to the job. The question put forward was in the form of self rating to the statement 'Attending training programs motivates me to use the new skills at work'.The respondents were required to mark on a scale of 1 to 3 their satisfaction 3 being satisfied and 1 being dissatisfied. 65% were satisfied, while 18% of respondents were dissatisfied. Thus a majority of the respondents had a positive perception of trainings for learning new skills.
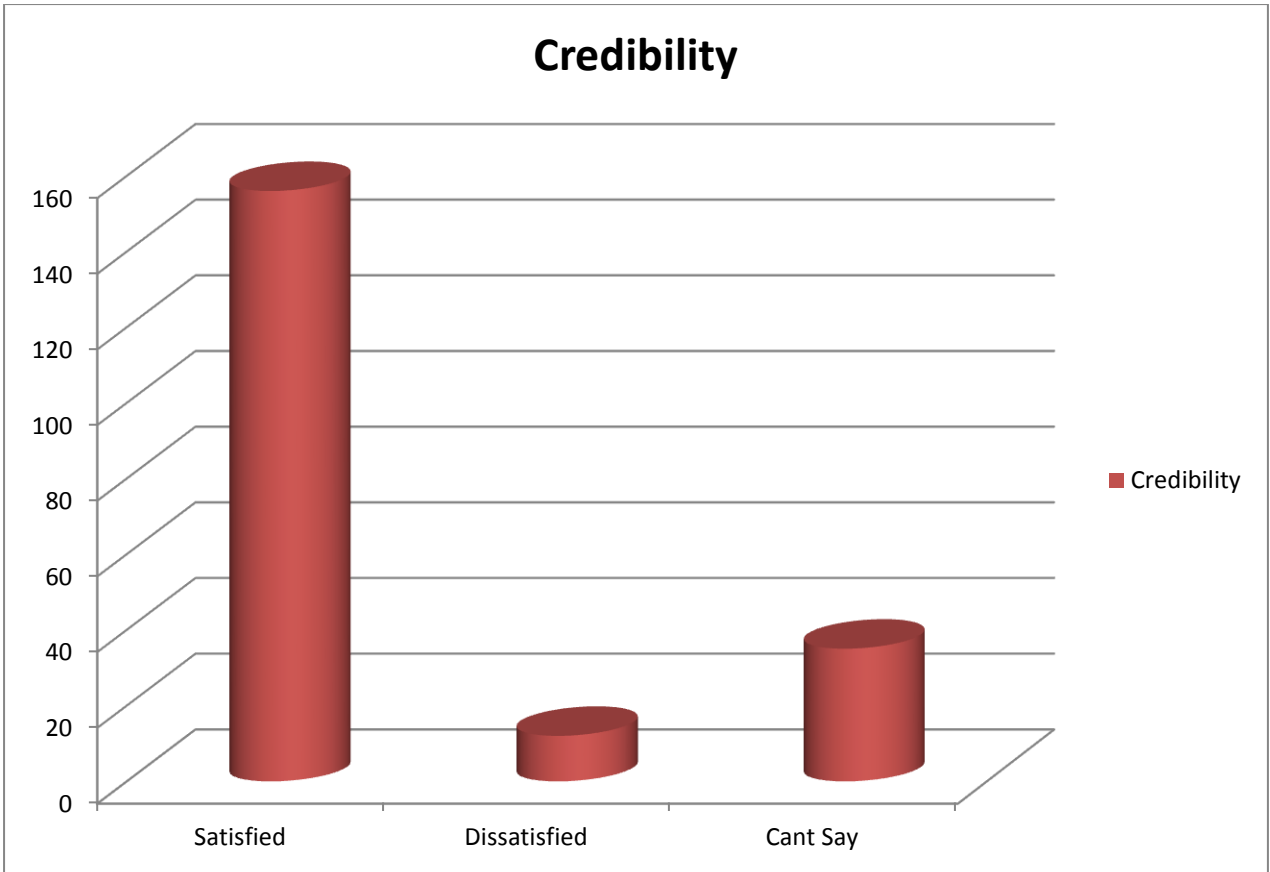
Fig 5.20 Frequency for Credibility

The figure 5.20 represents credibility of training. This construct is regarding the credibility of training. If the respondents believed the trainings as credible they reported satisfied. The question put forward was in the form of self rating to the statement 'Attending training sessions is important for career growth and development as I use new skills that I learn from there'.The respondents were required to mark on a scale of 1 to 3 their satisfaction 3 being satisfied and 1 being dissatisfied. Approximately 76 % of respondents were satisfied while 6 % were dissatisfied.
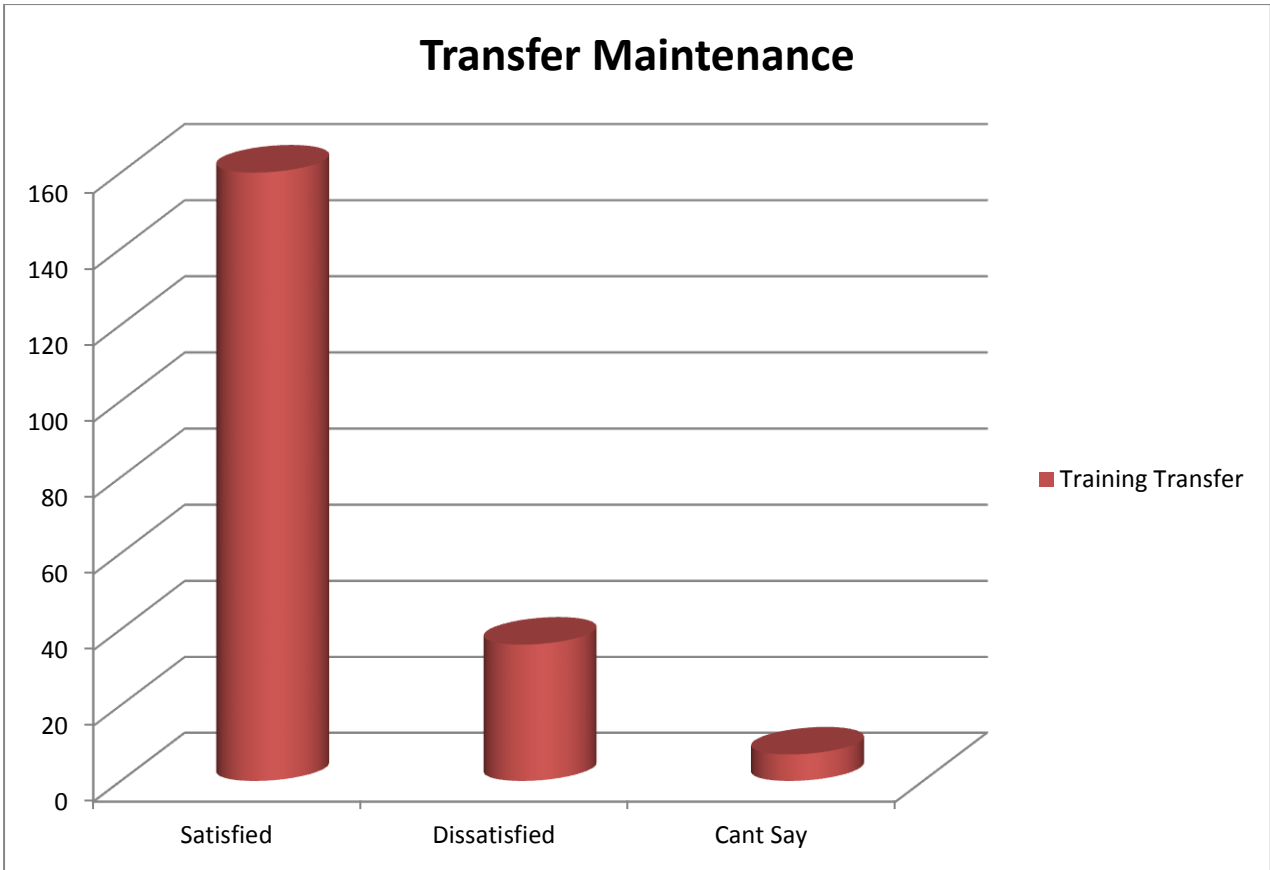
Fig 5.21 Frequency for Transfer Maintenance

Figure 5.21 represents transfer maintenance or using the learning derived by the respondents from trainings. Transfer maintenance refers to the use of learning and its maintenance over time. The respondents were asked to rate their satisfaction regarding this variable .The question put forward was in the form of self rating to the statement 'Using new skills learnt from training programs helps improve my performance at work.'The respondents were required to mark on a scale of 1 to 3 their satisfaction 3 being satisfied and 1 being dissatisfied .79 %(approx) respondents reported satisfied while 18% reported dissatisfied. Thus training transfer is taking place from training sessions to workplace.
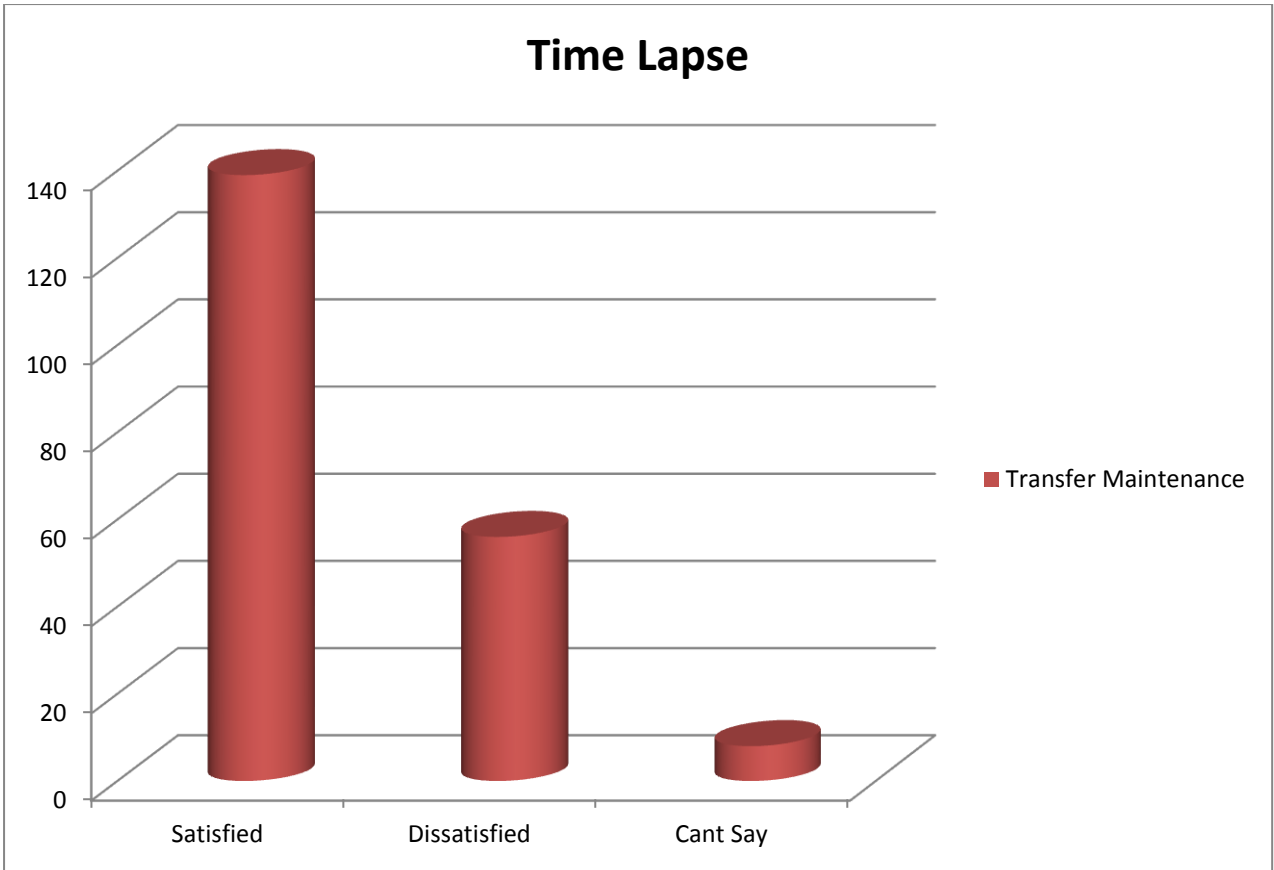
Fig 5.22 Frequency for Time Lapse

Figure 5.22 refers to the effect of time lapse or gap on use of new skills derived from trainings. The respondents were asked if time lapse between training sessions and field work hinders in use of skills learnt. The question put forward was in the form of self rating to the statement 'Time lapse between training sessions and field work hinders the use of new skills at work.'The respondents were required to mark on a scale of 1 to 3 their satisfaction 3 being satisfied and 1 being dissatisfied. 68 % (approx.) respondents were satisfied or affirmative while approximately 28 % (approx.) were dissatisfied or negative.

5.2.4 Interpretation of Usage Scale

i. The ability of the individual helps in using their skills they derive from the training sessions attended. .77 % respondents were satisfied while only 18% were dissatisfied with the using new skills from training programs. Hence the majority of respondents are satisfied with the effect of ability on learning.

ii. Personality or employee characteristic is another important work environment factor for using new skills at work .Employee uses his personal construct in applying his skills on the job. Majority 93 % respondents were satisfied while 5 % were dissatisfied.

iii. The academic qualification/Education is another important factor to which the respondents agree as affecting use of training. 85% respondents were satisfied while 13 % were dissatisfied. Thus a majority of respondents identified it as affecting training maintenance.

iv. Experience of the Medical Representatives in their job and field of work helps them in developing personal ways and means of applying their skills on job.82 % respondents were satisfied that their experience helps them use new skills while 15 % were dissatisfied with the same.

v. Supervisor support refers to the help and encouragement received from immediate boss for learning and applying new skills. The supervisor support has been recognized as one of the work environment factors of training transfer. In our survey 79 % were satisfied that the encouragement from supervisor aids their using new skills at work while 12 % were dissatisfied.

vi. Peer support has also been identified as work environment factors affecting training transfer. In our survey 71% were satisfied that peer support helps them use the new skills learnt and 19% were dissatisfied with the same.

vii. Motivation or impetus provided by the training program for using new skills is a psychological work environment factor. Without motivation there may be no will to use or transfer new skills to job. In our survey 67% were satisfied and 22% were dissatisfied with the factor.

viii. Perception refers to how the trainees perceived their training. If they see training being useful and adding value they would perceive it well and use it on the job. In our survey 65% were satisfied from this factor while 18% were dissatisfied.

ix. Credibility of training refers to its reliability, it relates to whether the trainings provided are reliable from point of view of the Medical Representatives or not. It is important for transfer maintenance as people will not use what they cannot trust. 76% respondents in our survey were satisfied with it and 6% were dissatisfied for this factor on this scale.

x. Transfer Maintenance here is the outcome of training and not a factor, referring in our survey on this scale to use of new skills post training. For this, in our survey 79% were satisfied from usage of new skills learnt while 18% were dissatisfied.

xi. Time lapse refers to the gap between learning and point of its application or use on the job by the trainees. In our survey 68% were satisfied that time lapse affects training usage while 28% were dissatisfied.

5.3 HYPOTHESIS TESTING

In our thesis five hypotheses were proposed .The data has been collected using the questionnaire from respondents who were medical representatives working in Lucknow. There were two scales in the questionnaire filled by each respondent regarding their satisfaction towards the learning from training and its use in their work settings and how the work environment factors were supportive of this learning and use. The questionnaires were filled by 203 respondents.

5.3.1 HYPOTHESIS 1

H_0: Peer support does not significantly affect transfer of training

H_1: Peer support affects transfer of training significantly

Peer support is an important work environment factor, in this hypothesis we study it in respect to its effect on transfer of training. It is studied with the help of the observations made on its effect on learning and usage. The collected responses of the medical representatives show that peer support affects transfer of training significantly as most respondents are positive to its effect. To test our hypothesis we used the chi-square test for independence of attributes with critical value $\alpha = 0.05$ was used. Table 5.8 shows the observed values; table 5.9 shows the expected values while table 5.10 shows the chi-square values.

Table: 5.8 Observed Values of Peer Support

Observed Values(O)	Learning Scale	Usage Scale	Row Total
Satisfied	123_1	145_2	268
Dissatisfied	77_1	39_2	116
Cant say	3_1	19_2	22
Column Total	203	203	406

$_1$Refer Table 5.6

$_2$Refer Table 5.7
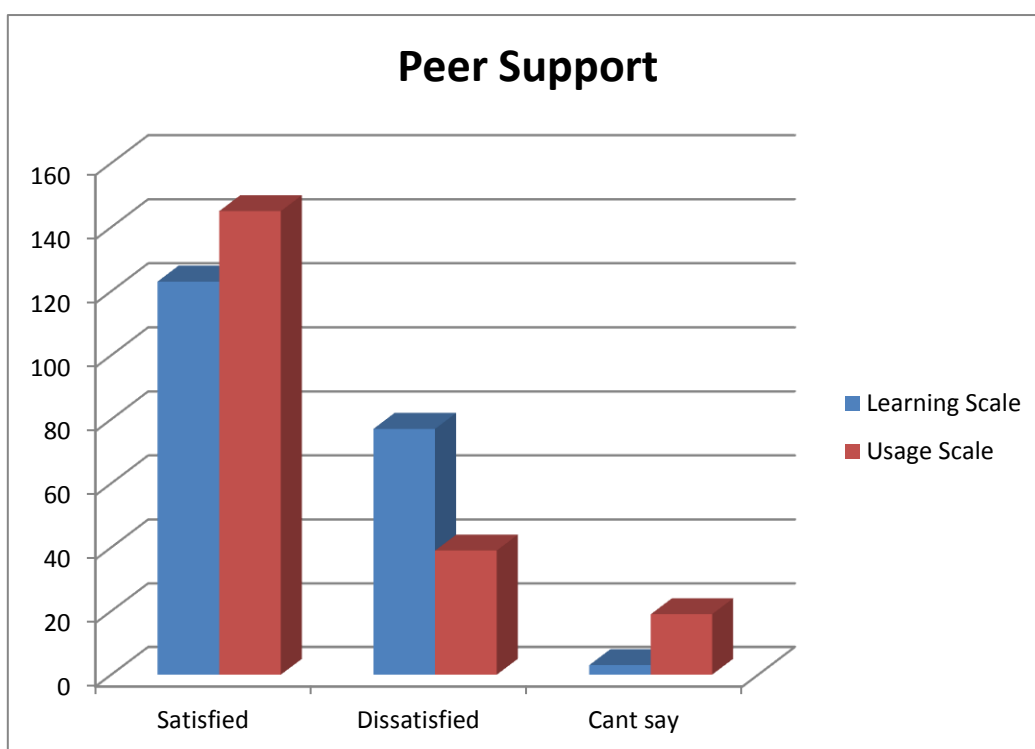
Fig.5.23   Observed Values of Peer Support

The above figure represents the comparative observed values for peer support by the respondents on learning and usage scale.

Table: 5.9 Expected Values of Peer Support

Expected Value (E)₃	Learning Scale	Usage Scale
Satisfied	134	134
Dissatisfied	58	58
Cant Say	11	11

Calculated using formula ₃ for, Expected Value (E) = Row Total/Grand Total *Column Total

₃Refer Gupta S.P, Statistical Methods 44th revised edition, Sultan Chand & Sons, pp. 955 -960

Table 5.10 χ2 Values of Peer Support

Chi-Square(χ2c)	Learning Scale	Usage Scale	Row Total
Satisfied	0.90	0.90	1.81
Dissatisfied	6.22	6.22	12.45
Cant say	5.82	5.82	11.64
Column Total	12.94	12.94	25.89*

p-value			2.3874E-06**
Degree of Freedom			2 ***

*χ^2c (Chi –Square Calculated) = $\sum$ (Observed-Expected) ²/Expected

**CHITEST function Ms Excel for p-value, 2.3874E-06 = 0.0000023874

*** Degree of Freedom = (number of rows -1)*(number of columns-1) = 2

Critical Value α =0.05

Chi-square at α in table (Ref. Annexure – III) = 5.991

Results:

➢ On the basis of comparison of the chi-square calculated value which is 25.89 with the table value of chi- square at critical value α =0.05 which is 5.991, the calculated chi square is greater than chi square at alpha. Hence our null hypothesis is rejected.

➢ The alternate hypothesis '*Peer support affects transfer of training significantly*' is accepted.

➢ The p-value of chi-square calculated is 2.3874E-06 is less than critical value 0.05 .Hence the data is statistically significant.

5.3.2   HYPOTHESIS 2

H_0: Supervisor support does not affect transfer of training significantly

H_2: Supervisor support affects transfer of training significantly

Supervisor support is an important work environment factor, in this hypothesis we study it in respect to its effect on transfer of training. It is studied with the help of the observations made on its effect on learning and usage. The collected responses of the medical representatives show that supervisor support affects transfer of training significantly as most respondents are positive to its effect. To test our hypothesis we used the chi-square test for independence of attributes with critical value $\alpha = 0.05$ was used. Table 5.11 shows the observed values; table 5.12 shows the expected values while table 5.13 shows the chi-square values

Table 5.11 Observed values of Supervisor Support

Observed Values(O)	Learning Scale	Usage Scale	Row Total
Satisfied	153_1	162_2	315
Dissatisfied	48_1	26_2	74
Cant say	2_1	15_2	17
Column Total	203	203	406

[1]Refer Table 5.6
[2]Refer Table 5.7

189
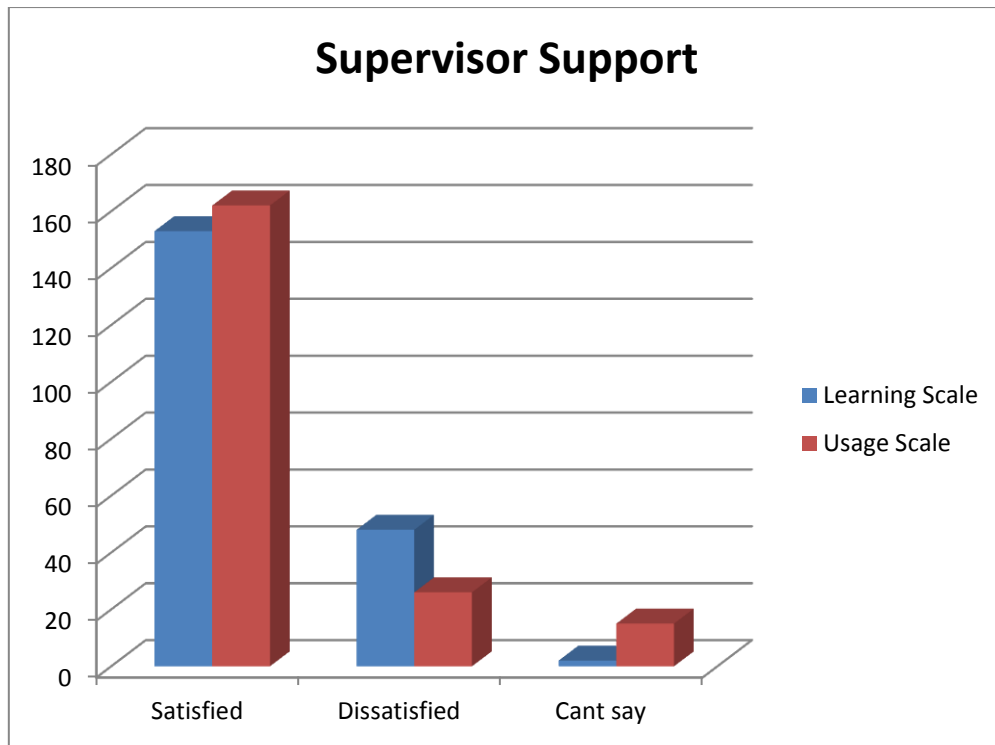
Fig. 5.24 Observed Values of Supervisor Support

The above figure represents the comparative observed values for Supervisor Support by the respondents on learning and usage scale.

Table 5.12 Expected Values of Supervisor Support

Expected Value (E)₃	Learning Scale	Usage Scale
Satisfied	157.5	157.5
Dissatisfied	37	37
Cant Say	11	8.5

Calculated using formula ₃ for, Expected Value (E) = Row Total/Grand Total *Column

Total

₃Refer Gupta S.P, Statistical Methods 44th revised edition, Sultan Chand & Sons ,pp. 955

-960

Table 5.13 χ2 Values of Supervisor Support

Chi-Square(χ2c)	Learning Scale	Usage Scale	Row Total
Satisfied	0.13	0.13	0.26
Dissatisfied	3.27	3.27	6.54
Cant say	7.36	4.97	12.33
Column Total	10.76	8.37	19.13*
p-value			7.01E-05**
Degree of Freedom			2 ***

*χ2c (Chi –Square Calculated) = $\sum$ (Observed-Expected) ²/Expected

**CHITEST function Ms Excel for p-value, 7.01E-05 = 0.0000701

*** Degree of Freedom = (number of rows -1)*(number of columns-1) = 2

Critical Value =0.05

Chi-square at alpha in table (Ref. Annexure – III) = 5.991

Results:

- On the basis of comparison of the chi-square calculated value which is 19.13 with the table value of chi- square at critical value α =0.05 which is 5.991, the calculated chi square is greater than chi square at alpha. Hence our null hypothesis is rejected.

- The alternate hypothesis *'Supervisor support affects transfer of training significantly'* is accepted.

- The p-value of chi-square calculated 7.01E-05 is less than critical value 0.05.Hence the data is statistically significant.

5.3.3   HYPOTHESIS 3

H_0: **Academic qualification does not significantly affect training transfer in medical representatives**

H_3: **Academic qualification affects training transfer in medical representatives significantly**

Academic Qualification is an important work environment factor, in this hypothesis we study it in respect to its effect on transfer of training. It is studied with the help of the observations made on its effect on learning and usage. The collected responses of the medical representatives show that academic qualification affects transfer of training significantly as most respondents are positive to its effect. To test our hypothesis we used the chi-square test for independence of attributes with critical value α = 0.05 was used. Table 5.14 shows the observed values; table 5.15 shows the expected values while table 5.16 shows the chi-square values.

Table: 5.14 Observed Values of Academic Qualification

Observed Values(O)	Learning Scale	Usage Scale	Row Total
Satisfied	178_1	173_2	351
Dissatisfied	24_1	28_2	52
Cant say	1_1	2_2	3
Column Total	203	203	406

$_1$Refer Table 5.6

$_2$Refer Table 5.7
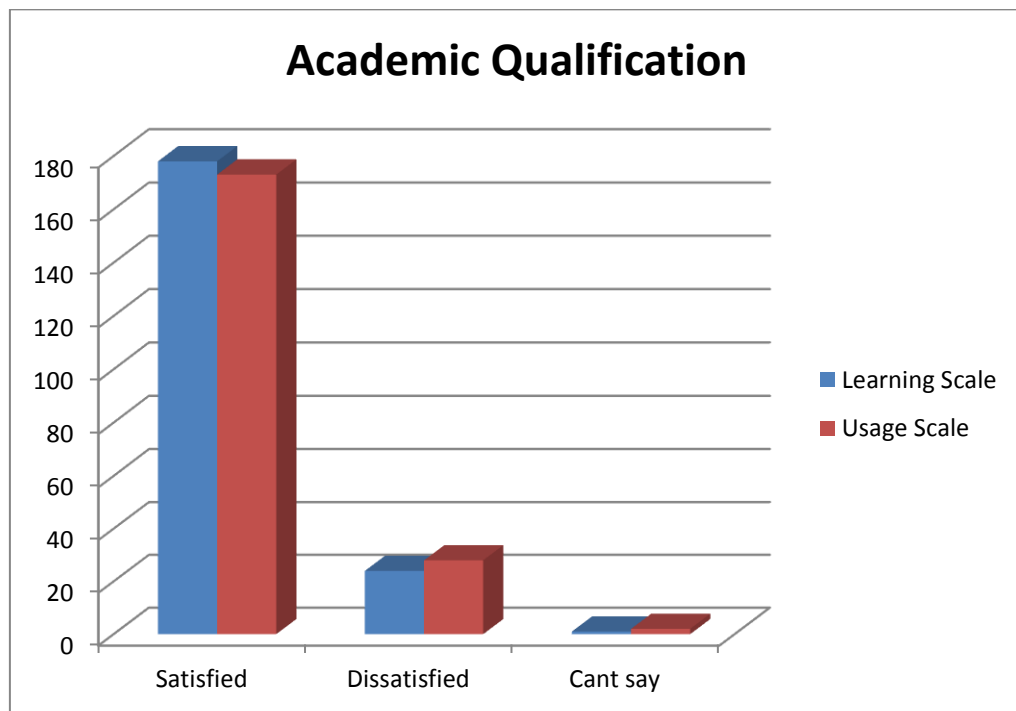
Fig. 5.25   Observed Values of Academic Qualification

The above figure represents the comparative observed values for Academic Qualification by the respondents on learning and usage scale.

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Table 5.15 Expected Values of Academic Qualification

Expected Value (E)₃	Learning Scale	Usage Scale
Satisfied	175.5	175.5
Dissatisfied	26	26
Cant Say	11	1.5

Calculated using formula ₃ for, Expected Value (E) = Row Total/Grand Total *Column Total

₃Refer Gupta S.P,Statistical Methods 44th revised edition , Sultan Chand & Sons ,pp. 955 -960

Table 5.16 χ2 Values of Academic Qualification

Chi-Square(χ2c)	Learning Scale	Usage Scale	Row Total
Satisfied	0.03	0.03	0.07
Dissatisfied	0.15	0.15	0.31
Cant say	9.10	0.17	9.26
Column Total	9.28	0.35	9.64*
p-value			0.008**
Degree of Freedom			2 ***

*χ2c (Chi –Square Calculated) = ∑ (Observed-Expected) ²/Expected

**CHITEST function Ms Excel for p-value

Degree of Freedom = (number of rows -1)*(number of columns-1) = (3-1)*(2-1) = 2

Critical Value =0.05

Chi-square at alpha in table (Ref. Annexure – III) = 5.991

Results:

> On the basis of comparison of the chi-square calculated value which is 9.64 with the table value of chi- square at critical value α =0.05 which is 5.991, the calculated chi square is greater than chi square at alpha. Hence our null hypothesis is rejected.

> The alternate hypothesis 'Academic qualification affects training transfer in medical representatives significantly' is accepted.

> The p-value of chi-square calculated 0.0008 is less than critical value 0.05.Hence the data is statistically significant.

5.3.4   HYPOTHESIS 4

H₀: Time Lapse between training and field work affects does not significantly affect training transfer

H₄: Time Lapse between training and field work affects training transfer significantly

Time Lapse n is an important work environment factor, in this hypothesis we study it in respect to its effect on transfer of training. It is studied with the help of the observations made on its effect on learning and usage. The collected responses of the medical representatives show that time lapse affects transfer of training significantly as most respondents are positive to its effect. To test our hypothesis we used the chi-square test for independence of attributes with critical value $\alpha = 0.05$ was used. Table 5.17 shows the observed values; table 5.18 shows the expected values while table 5.20 shows the chi-square values.

Table: 5.17 Observed Values of Time Lapse

Observed Values(O)	Learning Scale	Usage Scale	Row Total
Satisfied	162_1	139_2	301
Dissatisfied	36_1	56_2	92
Cant say	5_1	8_2	13
Column Total	203	203	406

$_1$Refer Table 5.6
$_2$Refer Table 5.7
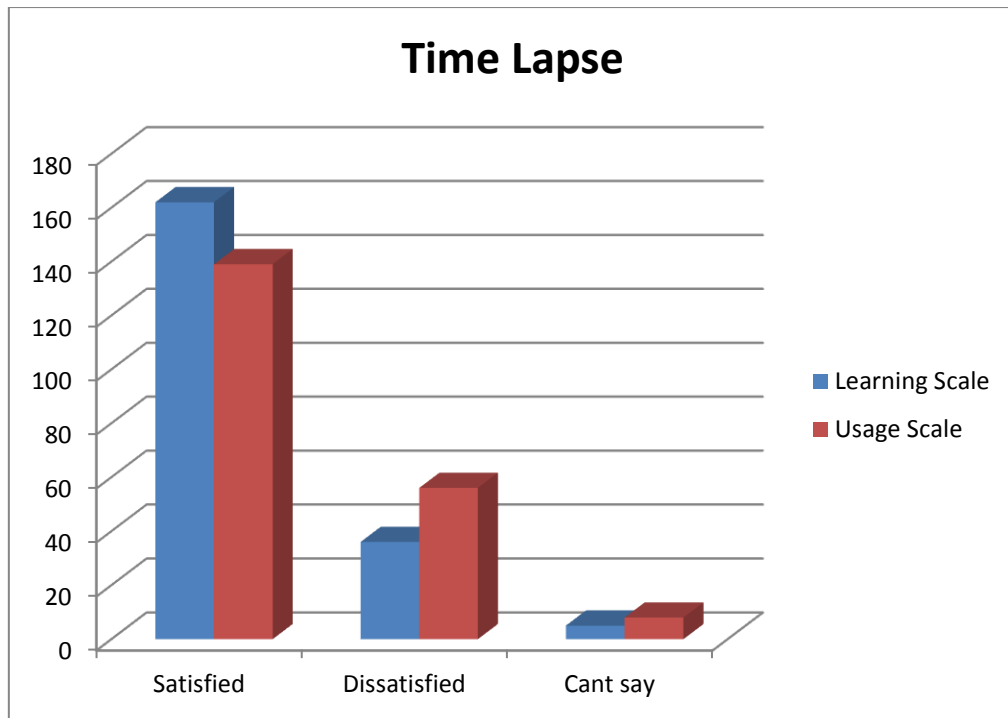
Fig. 5.26 Observed Values of Time Lapse

The above figure represents the comparative observed values for Time Lapse by the respondents on learning and usage scale.

Table 5.18 Expected Values of Time Lapse

Expected Value (E)$_3$	Learning Scale	Usage Scale
Satisfied	150.5	150.5
Dissatisfied	46	46
Cant Say	11	6.5

Calculated using formula $_3$ for, Expected Value (E) = Row Total/Grand Total *Column Total

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[3]Refer Gupta S.P, Statistical Methods 44th revised edition , Sultan Chand & Sons ,pp. 955 -960

Table 5.19 χ2 Values of Time Lapse

Chi- Square(χ2c)	Learning Scale	Usage Scale	Row Total
Satisfied	0.88	0.88	1.76
Dissatisfied	2.17	2.17	4.35
Cant say	3.27	0.35	3.62
Column Total	6.33	3.40	9.72*
p-value			0.007**
Degree of Freedom			2 ***

*$\chi2$c (Chi –Square Calculated) = $\sum$ (Observed-Expected) ^{2}/Expected

**CHITEST function Ms Excel for p-value

***Degree of Freedom = (number of rows -1)*(number of columns-1) = 2

Critical Value α=0.05

Chi-square at α in table (Ref. Annexure – III) = 5.991

Results:

- ➤ On the basis of comparison of the chi-square calculated value which is 9.72 with the table value of chi- square at critical value α =0.05 which is 5.991, the calculated chi square is greater than chi square at alpha. Hence our null hypothesis is rejected.

- ➤ The alternate hypothesis *'Time Lapse between training and field work affects training transfer significantly'* is accepted.

➢ The p-value of chi-square calculated 0.007 is less than critical value 0.05.Hence the data is statistically significant.

5.3.5 HYPOTHESIS 5

H$_o$: Employee Characteristics do not affect transfer of training significantly

H$_5$: Employee Characteristics affect training transfer significantly

Employee Characteristics/personality is an important work environment factor, in this hypothesis we study it in respect to its effect on transfer of training. It is studied with the help of the observations made on its effect on learning and usage. The collected responses of the medical representatives show that employee characteristics/personality affects transfer of training significantly as most respondents are positive to its effect. To test our hypothesis we used the chi-square test for independence of attributes with critical value α = 0.05 was used. Table 5.20 shows the observed values; table 5.21 shows the expected values while table 5.22 shows the chi-square values.

Table: 5.20 Observed Values of Employee Characteristics

Observed Values(O)	Learning Scale	Usage Scale	Row Total
Satisfied	189_1	189_2	378
Dissatisfied	12_1	11_2	23
Cant say	2_1	3_2	5
Column Total	203	203	406

[1]Refer Table 5.6

[2]Refer Table 5.7
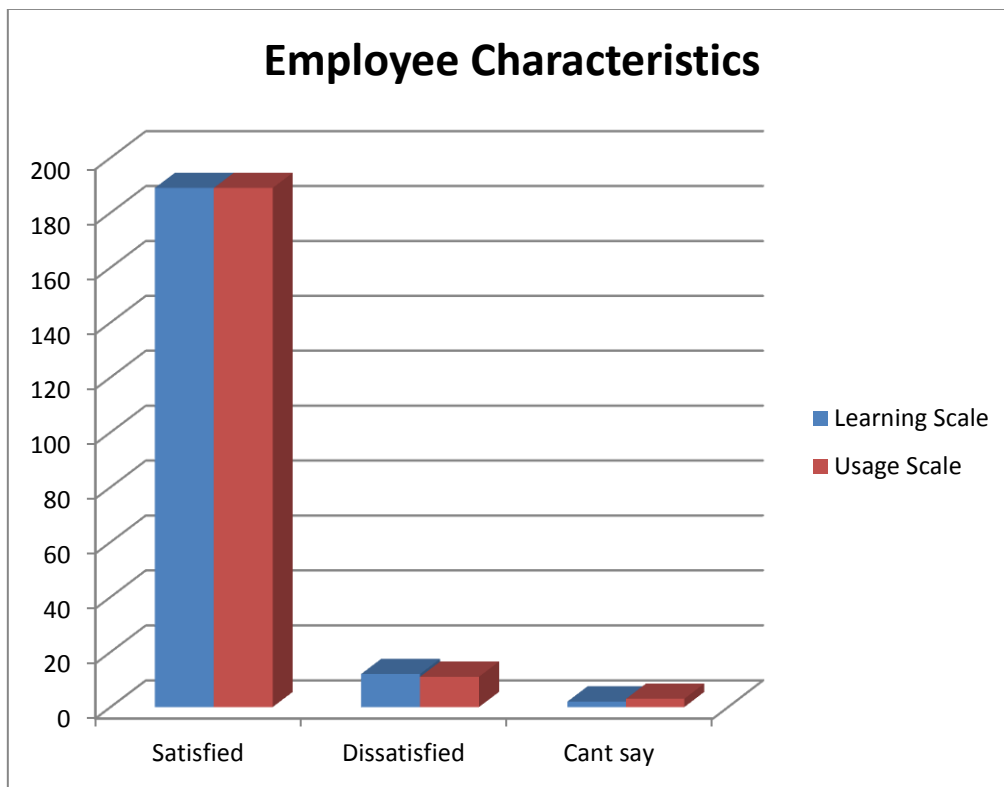
Fig.5.27 Observed Values of Employee Characteristics

The above figure represents the comparative observed values for Employee Characteristics /personality by the respondents on learning and usage scale

Table 5.21 Expected Values of Employee Characteristics

Expected Value (E)$_3$	Learning Scale	Usage Scale
Satisfied	189	189
Dissatisfied	11.5	11.5
Cant Say	11	2.5

Calculated using formula $_3$ for, Expected Value (E) = Row Total/Grand Total *Column Total

$_3$Refer Gupta S.P, Statistical Methods 44th revised edition, Sultan Chand & Sons ,pp. 955 -960

Table 5.22 χ2 Values of Employee Characteristics

Chi- Square(χ2c)	Learning Scale	Usage Scale	Row Total
Satisfied	0	0	0
Dissatisfied	0.02	0.02	0.04
Cant say	7.36	0.10	7.46
Column Total	7.38	0.12	7.50*
p-value			0.02**
Degree of Freedom			2 ***

*χ2c (Chi –Square Calculated) = ∑ (Observed-Expected) ^{2}/Expected

**CHITEST function Ms Excel for p-value

***Degree of Freedom = (number of rows -1)*(number of columns-1) = 2

Critical Value =0.05

Chi-square at alpha in table (Ref. Annexure – III) = 5.991

Results:

> On the basis of comparison of the chi-square calculated value which is 7.50 with the table value of chi- square at critical value α =0.05 which is 5.991, the calculated chi square is greater than chi square at alpha. Hence our null hypothesis is rejected.

> The alternate hypothesis *'Employee Characteristics affect training transfer significantly'* is accepted.

> The p-value of chi-square calculated 0.02 is less than critical value 0.05.Hence the data is statistically significant.

CHAPTER VI

FINDINGS, OBSERVATIONS AND LIMITATIONS

Transfer of training for Medical Representatives is important because selling is at the core of any type of business. It is an art of communication that can effectively bridge the gap between the company and the customers. The level of communication in the relationship is affected by bonds between the buyer and the. In case of complex products like drugs and medicines which cannot be sold directly nor can be advertised, the role of medical representatives is crucial as they are the linking pins in this industry to push up sales. In the present scenario of recession, companies are forced to defocus on peripheral activities and

propel the selling function. Despite their importance, most of the business strategies attribute least priority to the sales staff of the company and fail to justify the money spent on them. In case of transfer of training not taking place the company will suffer not just the loss of time and money invested in trainings but may also suffer losses due to loss of selling opportunity and inability to market its products properly. Hence it is crucial for transfer of training to take place positively

Our first and second objectives which were to find out the work environment factors were covered under the literature review and the interview of the Medical Representatives. The third and fourth objectives were covered under the satisfaction survey of Medical Representatives which were namely to study the effects of work environment factors on training transfer and transfer maintenance. Two scales were created each using the satisfaction of respondents towards the role of identified work environment factor to study the same(refer Table 5.1) . The two scales represent learning and usage of skills which are the outcome of training i.e. namely training transfer and transfer maintenance. Learning here represents training transfer and usage represents transfer maintenance.

6.1 Findings

6.1.1 Findings of Hypothesis Testing

The hypotheses were used to test whether the work environment factors like peer support, supervisor support, academic qualification, time lapse and employee characteristics affect training transfer. The responses have been recorded on the two scales through satisfaction

survey (refer Table 5.6 & Table 5.7). The data was analysed using chi- square statistic (χ) with critical value (α) 0.05.

A. Hypothesis 1

The first null hypothesis was that peer support has insignificant effect on training transfer while the alternate hypothesis being that it does affect training transfer. For this we studied the relative satisfaction of respondents with the role of peer supporting their learning and usage of new skills derived from training (refers to Table 5.6 & table 5.7). The respondents were satisfied with the peer support both on the learning scale as well as usage scale.

1. More candidates were satisfied with the role of peer support in usage of skills than learning.

2. The calculated chi- square was 25.89 compared with the table value of chi- square at critical value α =0.05 which is 5.991, the calculated chi square is greater than chi square at alpha. Hence our null hypothesis is rejected. (Refer: Table 5.10)

3. Data is statistically significant as the p-value of chi-square calculated is 2.3874E-06 is less than critical value 0.05. (Refer :Table 5.10)

4. Hence the alternate hypothesis is accepted and stands true that peer support affects training transfer significantly.

B. Hypothesis 2

The second null hypothesis was that supervisor support has insignificant effect on training transfer while the alternate hypothesis being that it does affect training transfer. For this we studied the relative satisfaction of respondents from the role of supervisor support in their learning and usage of new skills derived from training (refers to Table 5.6 & table 5.7). Most respondents were satisfied with the supervisor support on both the learning scale as well as usage scale.

1. More candidates were satisfied with the role of supervisor support in usage of skills than learning.

2. The calculated chi- square was 19.13 compared with the table value of chi- square at critical value α =0.05 which is 5.991, the calculated chi square is greater than chi square at alpha. Hence our null hypothesis is rejected.(Refer: Table 5.13)

3. Data is statistically significant as the p-value of chi-square calculated is7.01E-05 which is less than critical value 0.05. .(Refer: Table 5.13)

4. Hence the alternate hypothesis is accepted and stands true that supervisor support affects training transfer significantly.

C. Hypothesis 3

The third null hypothesis was that academic qualification has insignificant effect on training transfer while the alternate hypothesis being that academic qualification does affect training transfer significantly. For this we studied the relative satisfaction of respondents from the role of academic qualification in their learning and usage of new skills derived from

training (refers to Table 5.6 & table 5.7). Most respondents were satisfied with the role of academic qualification on both the learning scale as well as usage scale.

1. More candidates were satisfied with the role of academic qualification on learning of skills than usage.

2. The calculated chi- square was 9.64 compared with the table value of chi- square at critical value α =0.05 which is 5.991, the calculated chi square is greater than chi square at alpha. Hence our null hypothesis is rejected (Refer : Table 5.16)

3. Data is statistically significant as the p-value of chi-square calculated is 0.008 which is less than critical value 0.05 (Refer : Table 5.16)

4. Hence the alternate hypothesis is accepted and stands true that academic qualification affects training transfer significantly.

D. Hypothesis 4

The fourth null hypothesis was that Time Lapse between training and field work affects does not significantly affect training transfer while the alternate hypothesis being that between training and field work affects training transfer significantly. For this we studied the relative satisfaction of respondents from the role of time lapse in their learning and usage of new skills derived from training (refers to Table 5.6 & table 5.7). Most respondents were satisfied with the role of time lapse on both the learning scale as well as usage scale.

1. More candidates were satisfied with the role of time lapse on learning of skills than usage.

2. The calculated chi- square was 9.72 compared with the table value of chi- square at critical value α =0.05 which is 5.991, the calculated chi square is greater than chi square at alpha. Hence our null hypothesis is rejected (Refer: Table 5.19)

3. Data is statistically significant as the p-value of chi-square calculated is 0.007 which is less than critical value 0.05 (Refer: Table 5.19)

4. Hence the alternate hypothesis is accepted and stands true that time lapse between training and fieldwork affects training transfer significantly.

E. Hypothesis 5

The fifth null hypothesis was that Employee Characteristics do not affect training transfer while the alternate hypothesis being that employee characteristics affect training transfer significantly. For this we studied the relative satisfaction of respondents from the role of personality /employee characteristics in their learning and usage of new skills derived from training (refers to Table 5.6 & table 5.7). Most respondents were satisfied with the role of personality on both the learning scale as well as usage scale.

1. The candidates were equally satisfied with the role of personality/employee characteristics on both learning and usage scale.

2. The calculated chi- square was 7.50 compared with the table value of chi- square at critical value α =0.05 which is 5.991, the calculated chi square is greater than chi square at alpha. Hence our null hypothesis is rejected (Refer: Table 5.22)

3. Data is statistically significant as the p-value of chi-square calculated is 0.02 which is less than critical value 0.05 (Refer: Table 5.22)

4. Hence the alternate hypothesis is accepted and stands true that employee characteristics affect training transfer significantly.

Major Findings from Hypothesis Testing:

1. The peer support and supervisor support are positively linked to training transfer and hence the organisations can use the untapped potential of social network to improve training transfer

2. The academic qualification and employee characteristics are also positively linked to training transfer and hence there is a need to customise trainings according to individual needs.

3. The time lapse also affects training transfer hence, there is a need to re-evaluate and conduct trainings required by the medical representatives from time to time.

4. The relationship between work environment factors and training transfer is positive as proven through our hypothesis testing that factors like peer support ,supervisor support ,academic qualification , employee characteristics and time lapse have positive impact on training transfer.

5. These findings confirm our conceptual model as identified in the literature review. (Refer : Table:2.1)

6.1.2 Other Major Findings

The work environment factors were brought to the fore with the help of literature review and a pilot test was conducted to confirm the validity of these factors in training transfer of the Medical Representatives in Lucknow area. The pilot test was in form of interview in which majority of respondents affirmatively identified the impact of these work environment factors on training transfer. From the interview of Medical Representatives we can say:

xiii.   90 % respondents were had a positive perception of their trainings, thus indicating that they believed that attending training sessions helped them learn new skills.

xiv.   70 % Medical Representatives agreed that trainings delivered what they purport to. Thus emphasising the credibility of trainings in their sector.

xv.   Among respondents 45 % reported that Academic qualification was the most important individual characteristic that helped in training transfer.

xvi.   When asked about the peer support in learning from training 60 % respondents said that peers supported them in learning.

xvii.   75% respondent was positive that supervisor support aided in learning from trainings through encouragement. .

xviii.   75% respondents said they were able to learn something from each training session that they attend thus reflecting their ability to learn.

xix.   70 % in total responded positively to being able to use their learning on the job thus they were positive about the opportunity to perform.

xx.   The work environment factors shared a positive relation due to their positive perception in the opinion of the respondents.

Satisfaction Survey Findings: We conducted a satisfaction survey among Medical Representatives in Lucknow regarding the role of various work environment factors in training transfer (learning) and transfer maintenance (use).For this they were required to mark on a self rating scale of 1to 3 their satisfaction regarding role of each work environment factor mentioned. The learning scale represents the learning of skills or training transfer and effect of work environment factors on it. The usage scale represents the use of skills or transfer maintenance over time and effect of work environment factors.

xii. Ability means the trainability or the potential of the individual to learn or use new skills 81 % respondents were satisfied while only 17 % were dissatisfied with the use of their ability for learning new skills from training programs. While 77 % respondents were satisfied while only 18% were dissatisfied with the use of new skills from training programs. Hence more respondents were satisfied with role of ability in training transfer than transfer maintenance.

xiii. Personality refers to the employee characteristics which are important for learning and usage of new skills. It is the construct of a person.93 % respondents were satisfied while 12 % were dissatisfied with the role of personality in learning of new skills while 93 % respondents were satisfied while 5 % were dissatisfied with the role of personality in usage of new skills. Thus lesser number of respondents were dissatisfied from role of personality in transfer maintenance than training transfer itself.

xiv. Academic qualification or education is the institutional learning a person has. It is another important factor in training transfer and transfer maintenance. 87% respondents were satisfied while 11 % were dissatisfied on the learning scale regarding role of academic qualification. 85% respondents were satisfied while 13 %

were dissatisfied regarding role of academic qualification in using new skills. Thus more respondents identified the role of academic qualification in training transfer positively.

xv. Experience or know - how of the Medical Representatives is another work environment factor. 88 % respondents were satisfied with the role experience plays in helping them learn while 10 % were dissatisfied with the same. 82 % respondents were satisfied that their experience helps them use new skills while 15 % were dissatisfied with the same. Thus lesser number of respondents was positive towards role of experience in transfer maintenance.

xvi. The supervisor support has been recognized as one of the work environment factors of training transfer. It is part of social support within the organization. In our survey 75 % were satisfied with the role of supervisor in learning while 23 % were dissatisfied. While 79 % were satisfied with the role of supervisor in using new skills at work and 12 % were dissatisfied. Thus supervisor support has an important role in transfer maintenance.

xvii. Peer support is another variable of social support. It is also identified as work environment factors affecting training transfer. In our survey 60 % were satisfied that peer support helps them learn from training sessions and 38 % were dissatisfied with the same. While on the usage scale 71% were satisfied that peer support helps them use new skills and 19% were dissatisfied. Thus peer support is more effective in transfer maintenance.

xviii. Motivation or impetus provided by the training program for learning and usage of new skills is a psychological work environment factor. In our survey 71% reported satisfied while 26% reported dissatisfied with the factor on learning scale. While 67%

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were satisfied and 22% were dissatisfied with the factor on usage scale. Thus motivation has a more recognizable role in training transfer than transfer maintenance.

xix. Perception refers to how the trainees perceived their training. If they see training being useful and adding value they would perceive it well and try to learn more from it. In our survey 69 % were satisfied from this factor while 29 % were dissatisfied on learning scale while 65% were satisfied from this factor while 18% were dissatisfied on usage scale. Thus the role of perception is more positively recognized by respondents in training transfer.

xx. Credibility of training refers to its reliability, it relates to whether the trainings provided are dependable from point of view of the Medical Representatives or not. It is important for training transfer to take place as people will not learn what they cannot trust. 73% respondents in our survey were satisfied with it and 26% are dissatisfied on learning scale while 76% respondents in our survey were satisfied with it and 6% were dissatisfied for this factor on usage scale. Thus it has a more positive recognition in transfer maintenance among respondents.

xxi. Training transfer and transfer maintenance are the outcomes of training referring to learning of new skills from training programs and usage of new skills learnt on the job. 86 % were satisfied from learnings gained while 12% were dissatisfied with training transfer itself while 79% were satisfied from usage of skills/transfer maintenance while 18% were dissatisfied. Thus more people are satisfied with training transfer than transfer maintenance.

xxii. Time lapse refers to the gap between learning and point of its application or use on the job by the trainees. In our survey 79% were satisfied that time lapse affects training retention while 18% were dissatisfied. While 68% were satisfied that time lapse

affects training usage while 28% were dissatisfied. Thus time lapse affects training retention more comparatively.

6.2 Observations

i.   The majority of Medical Representatives among our respondents were male and most of them were between the age group of 25 to 30 years.

ii. A majority of respondents had up to 5 years of experience in their field of work and were graduates.

iii. Most people in the respondents had attended up to 5 trainings during their tenure in this sector.

iv. The pharmaceutical companies operating in Lucknow are conducting training sessions for Medical Representatives regularly as in the interview, 50 % respondents said that trainings happened annually in their organisation while 30% reported as bi-annually and 20% reported that trainings are conducted quarterly in their organisation.

v.   Medical Representatives recognised product trainings as crucial for them as 75 % respondents were agreed to it.

vi. The Medical Representatives had a good opinion of trainings conducted as 80 % of the respondents said that their training experience was helpful in the interview.

vii.   When asked   what is more important in aiding learning from training 30%
        respondents identified peer support , another 30 % identified supervisor support
        while 40 % identified motivation which indicated that 60 % respondents had an
        external locus of control while 40 % had an internal locus of control.

6.3 Limitations

The results of this study must be interpreted in the light of some limitations. These can be
enumerated as given below:

1. As this study relied on self-ratings, it could be argued that the results obtained with
   these ratings are misleading. In addition, the importance of how much trainees
   believe they have transferred skills should not be underestimated because how
   trainees themselves feel about different stimuli can be significant in the successful
   application of trained skills (Wexley and Baldwin, 1986).

2. Self-report data were used to resourcefully capture respondents' personal feelings and
   perceptions regarding the transfer of training and using questionnaires was the most
   cost effective (resources, time and money) method to accomplish this.   But
   disadvantage of using self-report data is that it relies on the participant's memory,
   which could be subject to social desirability bias. As a result, participants may want

their behaviours to appear more attractive than it actually is. However, using valid and reliable questionnaires helped to moderate the disadvantages of using self-report data.

3. Another limitation of this study is that there was no training evaluation data available for the respondents to correlate our data with. According to Tracey, Tannenbaum, and Kavanagh (1995), without the existence of a control group, the effect of work environment factors cannot be conclusively deduced.

4. Due to numerous work environment factors existing for the pharmaceutical employees only a few could be considered for the purpose of our study

5. The pharmaceutical companies operating in Lucknow are numerous and all could not be covered in our study.

6. The medical representatives were sometimes not interested in participating in survey due to paucity of time.

CHAPTER VII

SUGGESTIONS , IMPLICATIONS & CONCLUSION

7.1 Suggestions

Based on the observations, findings, discussion and implications of the study, the recommendations for future research are listed below:

1. An in-depth study is required as to why the training fails to be transferred to the workplace for which the organisations need to do some introspection and conduct a research within to discover the possible reasons for this phenomenon.

2. There is a need to do a comparative study after various training sessions to see how much has been learnt.

3. There is a scope for study into transfer maintenance after a certain time lag to see how much of their training the members retain which can be done at intervals of 3 months to 6 months to check the effectiveness of training programs attended by member.

4. There is a need to study the impact of other work environment factors like initiative, leadership, practice and motivation on training transfer.

5. There is a need for studying the inhibiting factors that may be hindering the training transfer and maintenance of the medical representatives.

7.1.1 Future Approach

A further study should be done as to what factors support the maintenance of training transfer over time and thus increase the effectiveness of training sessions attended by the medical representatives. As we found that time lapse happens to affect trainings transfer there is a need to research techniques that could reinforce trainings and reduce the impact of time lapse and field work such as knowledge management systems using e-learning and m-learning for employees.

7.2 Implications

1. The pharmaceutical companies in Lucknow will be able to use this study to enhance their continuous transfer of training efforts as this research brings out the factors that encourage training transfer.

2. It helps organizations, human resource personnel face issues like the accurately identifying factors that encourage and inhibit transfer as they develop their own programs with the vital goal of increasing organizational performance.

3. Many groups, such as educators, and trainers, dealing with transfer of training issues may find the results of this study helpful.

4. It will help trainers better design the training programs for Pharmaceutical sales Representatives by including factors like social support in the purview to improve the training transfer.

5. This study will help organisations improve the training outcomes through better training design and improving the work environment factors for transfer of training.

6. This study focused on medical representatives who are a mobile workforce; therefore, its results may be generalized to other, different populations using similar workforce.

7. The study focused on medical representatives who work on highly specialised science backed products; therefore, its results may be generalized to other, different populations using similar workforce.

7.3 Conclusion

This study examined multiple influences (peer support supervisor support and employee characteristics) on Training transfer and transfer maintenance of Medical Representatives in Lucknow area .Also it tried to establish whether or not the work environment factors had an impact on training transfer and transfer maintenance. For this first an explorative study/pilot test was done to gauge the opinion of the Medical representatives as to which factors according to them influence training transfer .Later a second survey was done to establish the relation between the identified work environment factors namely being employee characteristics, qualification, peer support and supervisory support on transfer training transfer. The data was collected from the medical representatives and analysed. The survey sections were found to be reliable and valid for testing .It was concluded that the work

environment factors namely peer support, supervisor support, employee characteristics, qualification and time lapse are important for training transfer.

We started the study with the hope to explore the work environment factors for training transfer of Medical Representatives. Through our extensive literature review and results of interview schedule, we were able to bring to the fore the basic structure of work environment of training transfer which included the individual his psychological and physical environment .The second objective was to find the relationship between work environment factors which again we were able to find through the results of interview schedule of the Medical Representatives. The relationship between the work environment factors was found to be positive as most respondents recognised these factors as important and positive influence in their training.

The third objective was to study the relative influence of work environment factors on training transfer which we have done through the analysis of satisfaction survey of Medical Representatives regarding the influence which work environment factors have on their learning from training .The fourth objective was to study the relative influence of work environment factors on transfer maintenance. This was studied through the analysis of satisfaction survey of Medical Representatives regarding the influence which work environment factors have on their use of learning from training in their job.

Two instruments were used, the first an interview schedule and the second a satisfaction survey with satisfaction measured on two scales i.e. learning and usage. The first

survey was a pilot test to check whether we were on the right track with 20 participants. The second survey included 203 participants from Lucknow. The data was analysed and the hypotheses were tested using chi-square and were found to be true confirming that the work environment factors are related to the training transfer of Medical Representatives. Descriptive and empirical approaches have been used in analysing the data and its interpretation and our confirmatory research design was confirmed with the help of testing of hypotheses as our data is statistically significant.

This study adds to the existing training transfer research by creating further understanding of work environment factors like employee characteristics, academic qualification, peer support and supervisor support that influence actual transfer of training from a formal training setting to the workplace through crating a conceptual framework. In addition, the pharmaceutical companies will be able to use this study to enhance their continuous transfer of training efforts. The results of the study may also provide additional insight on transfer as a multi-dimensional process. It acts as beacon for many organizations, human resource personnel and trainers who are struggling with issues like the accurately identifying factors that encourage and inhibit transfer as they develop their own programs with the vital goal of increasing organizational performance. Many groups, such as educators, and trainers, dealing with transfer of training issues may find the results of this study helpful.

This study focused on medical representatives who are a mobile workforce; therefore, its results may be generalized to other, different populations using similar workforce. It is the researcher's hope that this study will serve as a base from which to

explore further prospects for administration of training transfer. Finally, the research could serve as a preliminary model for trainers and organizations for enhancing their transfer of training efforts.

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Annexure -I

Interview Schedule

Please read the questions carefully and tick mark the option you of your choice.

Name of Participant:

Number of years in Pharmaceutical Marketing:

    i.   How many times does your organisation conduct trainings?

        1)   Annually   2) Bi-annually   3) Quarterly

    ii.   What type of trainings is more useful?

        1)   Product training   2) Communication   3) Objection Handling

    iii.   How would you describe your training experience in your organisation?

        1) Helpful   2) Theoretical   3) Impractical

    iv.   Are trainings useful in learning new skills for performing your job?

        1) Yes   2) No   3) Can't Say

    v.   Are trainings able to deliver what they claim to?

     1) Yes   2) No   3) Can't Say

    vi.   What helps you the most in learning from training sessions?

     1) Academic Qualification   2) Experience   3) Personality

    vii.   Do your peers help you with the skills learned from training programmes they attended?

     1) Yes   2) No   3) Can't Say

    viii. Are your supervisors supportive of your training programmes and encourage you?

     1)   Yes   2) No   3) Can't Say

ix.   What plays a more important role in learning new skills from training?

    1) Peer Support   2) Supervisor support   3) Motivation

 x.   Are you able to learn new skills every time you attend a training session?

    1) Yes   2) No   3) Can't Say

xi.   Are you able to use the skills learnt from training in your daily work?

    1) Yes   2) No   3) Can't Say

Annexure -II

Questionnaire

Name of Participant:	
Age:	
Gender:	
Qualification:	
Experience	
Number of trainings attended till now:	

Please read the questions carefully and rate your answers accordingly, our intention is to understand the factors that help in training. Please rate your answers on a grading scale of 1 to 3: 1 being dissatisfied, 2 being can't say and 3 being satisfied.

A) *Learning from Trainings*

Q1. I learn new skills every time I attend a training program.

Q2. My personal initiative and approach help me in learning new skills from training programs

Q3. My academic qualification is useful in learning new skills from training programs in my organisation?

Q4. My experience comes in handy for learning new skills from training programs. ☐

Q5. My supervisor encourages and supports my learning of new skills through discussions and appreciation. ☐

Q6. My peers are helpful and supportive in gaining insight into training and learning new skills by way of discussion. ☐

Q7. Attending training sessions inspires me to learn new skills. ☐

Q8. Training sessions attended are important for my career growth and development as I learn new skills from them. ☐

Q9. Attending training sessions helps me learn new skills and gain knowledge required for my day to day work. ☐

Q10. Attending training sessions helps me learn new skills for my job. ☐

Q11. Time lapse between training sessions and field work hinders in retention of learning from training sessions. ☐

B) Using my Training

Q1. I am able to use the new skills that I learn from training programs in my job because of my willingness to learn. ☐

Q2. My personal initiative and approach help me master and use new skills from training and use them in my work.

Q3. My academic qualification equips me to master new skill and use them at work.

Q4. My experience in this field helps me in the use of new skills learnt from training at workplace

Q5. My Supervisor encourages and guides me to use new skills learnt from training at work.

Q6. My peers are helpful in the use of new skills at work as they discuss the use and encourage the use of new skills

Q7. Attending training programs motivates me to use the new skills at work.

Q8. Attending training sessions is important for career growth and development as I use new skills that I learn from there.

Q9. Attending training sessions is useful for me to exercise skills and knowledge that I learn therefrom .

Q10. Using new skills learnt from training programs helps improve my performance at work.

Q11.Time lapse between training sessions and field work hinders the use of new skills at work.

Thank you for participating in the survey

Annexure -III

Table I: Chi –Square Probabilities for different degrees of freedom

df	0.995	0.99	0.975	0.95	0.90	0.10	0.05	0.025	0.01
1	---	---	0.001	0.004	0.016	2.706	3.841	5.024	6.635
2	0.010	0.020	0.051	0.103	0.211	4.605	5.991	7.378	9.210
3	0.072	0.115	0.216	0.352	0.584	6.251	7.815	9.348	11.345
4	0.207	0.297	0.484	0.711	1.064	7.779	9.488	11.143	13.277
5	0.412	0.554	0.831	1.145	1.610	9.236	11.070	12.833	15.086
6	0.676	0.872	1.237	1.635	2.204	10.645	12.592	14.449	16.812
7	0.989	1.239	1.690	2.167	2.833	12.017	14.067	16.013	18.475
8	1.344	1.646	2.180	2.733	3.490	13.362	15.507	17.535	20.090
9	1.735	2.088	2.700	3.325	4.168	14.684	16.919	19.023	21.666
10	2.156	2.558	3.247	3.940	4.865	15.987	18.307	20.483	23.209
11	2.603	3.053	3.816	4.575	5.578	17.275	19.675	21.920	24.725
12	3.074	3.571	4.404	5.226	6.304	18.549	21.026	23.337	26.217
13	3.565	4.107	5.009	5.892	7.042	19.812	22.362	24.736	27.688
14	4.075	4.660	5.629	6.571	7.790	21.064	23.685	26.119	29.141
15	4.601	5.229	6.262	7.261	8.547	22.307	24.996	27.488	30.578
16	5.142	5.812	6.908	7.962	9.312	23.542	26.296	28.845	32.000
17	5.697	6.408	7.564	8.672	10.085	24.769	27.587	30.191	33.409
18	6.265	7.015	8.231	9.390	10.865	25.989	28.869	31.526	34.805
19	6.844	7.633	8.907	10.117	11.651	27.204	30.144	32.852	36.191
20	7.434	8.260	9.591	10.851	12.443	28.412	31.410	34.170	37.566