

**TO STUDY THE IMPACT OF ISO 9001:2008 CERTIFICATION ON
SELECTED HRM PRACTICES, OF LARGE SCALE AUTOMOBILE
INDUSTRIES IN PUNE REGION , DURING THE PERIOD 2002-2012.**

A Thesis

SUBMITTED TO THE

TILAK MAHARASHTRA VIDYAPEETH, PUNE

FOR THE DEGREE OF

DOCTOR OF PHILOSOPHY (Ph. D)

In Subject

Under The Board Of Management Studies



By

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JANUARY 2018

Certificate

This is to certify that the thesis entitled “**To study the impact of ISO 9001:2008 Certification on selected HRM practices , of large scale automobile industries in Pune region , during the period 2002-2012**”, which is being submitted herewith for the award of the **Degree of Philosophy (PhD) in Management Department of Tilak Maharashtra Vidyapeeth, Pune**, is the result of original research work completed by **Mrs. Mrunal Nitin Belsare** under my supervision and guidance. To the best of my knowledge and belief the work incorporated in this thesis has not formed the basis for the award of any degree or similar title of this or any other University or examining body upon her.

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Declaration

I hereby declare that the thesis entitled “**To study the impact of ISO 9001:2008 Certification on selected HRM practices , of large scale automobile industries in Pune region , during the period 2002-2012**” , completed and written by me has not previously formed the basis for the award of any degree or other similar title upon me of this or any other Vidyapeeth or examining body.

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ACKNOWLEDGEMENT

I have immense pleasure in expressing my sincere thanks to all those who have contributed their valuable time and played a great role towards the successful completion of my thesis.

I thank God for the wisdom and perseverance that he has been bestowed upon me during this research work, and indeed throughout my life.

Foremost I would like to express my sincere gratitude to my guide **Dr. Madhavi S. Kulkarni ,Vice Principal and Associate Professor, SNTT Women's College Pune**, for the continuous support throughout my research work . My special thanks to her for patience , motivation , enthusiasm and the co operation extended towards me in completing my thesis . Her guidance and valuable suggestions helped me in all the time research and writing this thesis.

I extend my heartfelt thanks to my elder brother **Dr. Nitin HanumantDeshpande Lead Consultant, DnyanapeethAcademy , Pune** for his continuous unconditional support for this study and making this research possible. His support , guidance throughout the research as well as his pain staking effort in proof reading the draft , is greatly appreciated, indeed, without his guidance , I would not have been able to put the topic together,

I must also extend my thanks to all my respondents i.e. **ISO consultants , HR and Quality Assurance Manages , employees of various departments** of large scale Automobile industries in Pune region for sharing their experiences and giving their unbiased opinion while answering the questionnaire . I am also grateful to the management of Automobile industries for allowing me to publish data related to their firms in the form of research,

My sincere thanks to **Dr. Abhijit Joshi , Acting Registrar, Tilak Maharashtra Vidyapeeth** for offering me an opportunity for the research and leading me working on diverse exciting research topic,

I take this opportunity of express my gratitude to **Dr. Hemant Abhyankar , Dean - Management Department , Tilak Maharashtra Vidyapeeth**, for his extended help in understanding various concepts, rules and methods useful for this thesis.

I am indeed thankful to **Dr. Pranoti Tilak – Head of Management Department , Dr. Sunanda Yadav- Head of PhD Department , Dr Nitin Vaidhya** and all the staff members of Management and Ph.D. Department, **Tilak Maharashtra Vidyapeeth** for extending the kind cooperation towards completion of this research work.

I can't forget the support and blessings given by my parents and in-laws and other members of my family. My greatest gratitude is towards them.

Last but not the least, I would like to thank my husband **Mr. Nitin Vasant Belsare** for the unconditional support both financially and emotionally throughout my Ph.D. I am also thankful to my two daughters **Ms. Rhujuta Belsare** and **Dr. Mrunmayee Belsare**, in particular, the patience , support and understanding shown by them is greatly appreciated.

Mrs. Mrunal Nitin Belsare

ABSTRACT

In the present era of globalization & liberalization, quality of product or service has become critical factor for the success of any organization. The major components of quality are considered as product quality, process quality and human resource quality of the organization. Quality of the product and services can be ensured only if organization focuses on the improvement of human resource quality. An organization's success to a larger extent depends upon the quality of its human resources. This is precisely the reason why every organization tries to hire the best human resources & pays them huge packages. Human Resource Management is a process of bringing people & organizations together for accomplishment of mutual goals. Indian companies / organizations are also witnessing a change in their systems, management styles, culture & philosophy due to their global alignment. There is need for multi skill development. There is change in the global scenario of the business. The scope of employment is changing from local to global. Increased competitiveness of organization depends upon, increased efficiency of the employees. Every organization should try to sustain the quality of the product or services, which is based on the process, people & system. The role of HRM is becoming more important. Organizations effectively use the Total Quality Management (TQM) systems to enhance the quality of the product, process in the organization. The Quality Management System Standard ISO 9001: 2008 focuses more on people centric organizations.

ISO Quality Management Systems , based on the process models , covers the processes like a) **Top management related processes** like quality policy , organization, resources, systems, plans, management reviews, objectives, internal audit and corrective actions b) **Functional processes** like marketing , design , purchase, production, inspection , handling, packaging, servicing. For effective functioning of all these processes, hr in the organization should be willing to a) install b) maintain and c) improve. Then only ISO implementation in the organization becomes successful.

The present study is taken up by the researcher to study the impact of implementation of ISO 9001:2008 on selected HRM practices in Automobile industries in Pune region during the period 2002 – 2012. Every industry is striving for quality. Compared to other tools, ISO 9001:2008 is prominently used by the Automobile Industries. ISO has developed a special standard for Automobile Industries i.e. ISO/TS 16949:2009, which defines the quality system requirements

for the design, ,development, and production and when relevant installation and service related to automotive related products.

The researcher has tried to find out the impact and effectiveness of implementation of ISO 9001:2008 on the employees and on the organization of the Automobile sector in Pune region. As stated earlier, the quality management standard ISO 9001: 2008 focuses more on people centric organizations. And of course Human Resource department of the co. plays an important role in effective implantation of HR policies in the company.

The research will help the Automobile Industries to implement HR practices which will follow the guidelines provided by the ISO 9001:2008. Definitely it will result in increased performance of the employees, skill set of the employees will improve, increased support by the employees to the management while implementing any change in the co, employee satisfaction, reduction in the attrition rate.

This research work has provided an excellent opportunity for the researcher for self development and has made her confident to undertake such research activities in future.

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Abbreviations

ISO	International Organization for Standardization
QMS	Quality Management System
TQM	Total Quality Management
T & D	Training & Development
OD	Organizational Development
PMS	Performance Management System
HRM	Human Resource Management
R & S	Recruitment and selection
PDCA	Plan- Do- Check- Act
SPSS	Statistical Package for Social Sciences
MCCIA	Maratha Chamber of Commerce, Industries and Agriculture
KEL	Kinetic Engineering Ltd.
BFL	Bharat Forge Ltd.
GM	General Motors Ltd.

Chapter– 1

Introduction and Design of the Study

- 1.1 Background of the study**
- 1.2 Problem Statement**
- 1.3 Objectives of Study**
- 1.4 Research Questions**
- 1.5 Hypotheses**
- 1.6 Scope of Research**
- 1.7 Significance of the Study**

INTRODUCTION AND DESIGN OF THE STUDY

1.1 Background of the study

It's evident that organizations around the world are facing impact of disruptive changes which are creating challenges and complexity for them. This drastic change is changing the way of functioning of the organizations. The automotive sector companies are facing global challenges of providing high quality products and services to its customers whether national or international in an efficient and effective manner.

It creates the urgency of implementing quality management systems. As per the ISO 9001:2008, a quality system implemented in right fashion can create several benefits to the internal as well as external stakeholders and which will eventually create a path where employees will be more committed.

Implementation of ISO 9001:2008 in various automotive industries may initially create more administrative work for them which demands time and experience of the employees which know the industry functioning well.

It has been seen from past researches that implementation of ISO 9001:2008 has positive outlook towards human resource activities such as employee turnover, motivation, communication and employee satisfaction. The implementation of ISO 9001:2008 brings other performance aspects such as increased consumer satisfaction, increased competitiveness. In the area of human resource management there is decreased staff turnover and increased employee satisfaction.

In fact Yung 1997 suggested that successful implementation of quality management system needs commitment and involvement from top-level management, teamwork approach in problem solving, training to promote quality awareness, improvement of quality control techniques and methods, continuous improvement program and participation of employees at all levels.

ISO Quality Management System based on Process model interalia covers following processes-

1. **Top Management Related Processes:** - Quality Policy, organization, resources, systems, plans, management review, objectives, internal audit and corrective actions.
2. **Functional Processes:** - Marketing, design, purchase, production, inspection, handling, packaging, servicing.

For effective functioning of all these processes HR in the organization should be willing to a) Install b) Maintain & c) Improve. Then only ISO in any organization becomes successful and effective.

Role of HR in ISO is much vast than it is spelt in the standard. Clause 6 (Resource Management) mainly focuses on HR both visibly and invisibly.

The direct and visible part of the role is in three areas-

1. **Selection and recruitment of personnel affecting quality of the product-** This provision of ISO is little tricky and all encompassing. Everyone from top to bottom in any organization is linked with product quality and hence activities of everybody are affecting (either in positive or negative manner) quality of product. The organizations should have well defined recruitment policy so that only right people get selected. This is audited by ISO auditors. The selection and recruitment should be based on knowledge, education, experience and competence. This gives ISO auditor access to the personal files of all employees and HR has to justify recruitment decisions. For obvious reasons, ISO auditor will not go into the details of salary and perquisites.
2. **Training of personnel including induction-** Either by way of training need identification (TNI) survey or by using competency mapping technique, HR Department has to identify training needs, justify them, organize for in-house or external training and finally measure effectiveness of training imparted. Over and above maintaining employee training records is mandatory under ISO requirements.
3. **Awareness about roles and responsibilities-** ISO has specifically emphasized to audit whether employees are aware about their roles and responsibilities and how their work contribute to achievement of organizational objectives. This awareness can only be brought by continuous training at all levels, especially workmen. Normally during shop floor audit, it is observed that workmen are not aware of quality

objectives of the organization, about their own departmental objectives and finally their own roles and responsibilities. So far as white collar staff is considered, the best way to check this is to ask the auditee to produce copy of his/her job description. Again ISO expects that employees have been communicated and have understood their responsibilities and authorities.

The invisible role of HR in clause six is combined with top management responsibility in terms of providing resources to the employees, adequate infrastructure, hardware as well as software and finally environment (not only physical.) Here many organizations conduct either organization climate survey or employee satisfaction survey to find out whether the work environment is conducive or not.

Over and above this, ISO expects HR to conduct regular ISO awareness training programmes wherein normally training about quality policy, quality objectives, evolution of ISO, benefits of ISO, general structure and main clauses of ISO should be given. This should be part and parcel of employee induction programme. Many organizations have included a clause in the appointment letter which reads as follows-

Attached is a copy of our Quality Policy which we, as an organization certified under ISO: 9001:2008 Quality Management System follow.

Training about customer requirements is also mandatory. This task of creating awareness about customer requirements across the organization has been given to none other than the Management Representative.

ISO has laid down importance to Internal Communication, which prima facie is the responsibility of HR in any organization.

Training finally should also be given to employees on documentation and audit. In the last clause there is a passing remark of Statistical Techniques and if the organization uses these techniques which are primarily diagnostic in nature, then training of these techniques is again essential. Such training should encompass process capability studies, problem solving process and basic QC tools.

Over and above qualification and training, one more area is employee motivation. Motivation comes from the basic understanding of employee tasks and how those tasks support the overall functioning of the organization. Employees should be made aware of the advantages of proper job performance at all levels and more importantly cost of poor quality. Motivational efforts should not get restricted to shop floor personnel but should be extended at all levels. Motivation can be achieved, when it is seen that management has provided recognition of performance when satisfactory quality levels have been achieved.

ISO is basically a system discipline model. But once the basic purpose is attained, it is also an on-going improving tool. This is elaborated in clause eight which itself is titled as “Measurement, Analysis and Improvement”. Planning for continual improvement is an important sub clause of ISO. The pathway to improvement is shown in the standard itself. The continual improvement can be brought in any organization through management review, quality policy, quality objectives, and audits, corrective and preventive actions. None other than human resources can bring in improvement in any organization. So HR plays significant role in clause 8 as well. This is obvious because quality system will improve only with improvement of human resources. ISO is a model to ensure consistent and ever improving quality and not an end by itself. It is foundation on which TQM (Total Quality Management) culture could be built.

In the light of ISO process becoming a twenty plus year old imitative, it becomes essential to look at it objectively. Traditionally Quality was looked upon as sole responsibility of quality control department (even once upon a time Quality Control Manager was obvious choice as Management Representative in most of the organizations. Although the picture is fast changing and in many organization HR person is becoming Management Representative, but it is still on low scale.) There is a need to change the angle now. It is FUNCTION of Quality Control Department but QUALITY is RESPONSIBILITY of everybody. It is naïve to restrict Quality to product only and think that it is applicable to shop floor employees. Today it is applicable to all, irrespective of categories, departments or type of work done. Customer Satisfaction is emphasized in the standard but there are internal customers also. Everyone needs to satisfy the internal customers by completing work with necessary quality levels and on-time. Awareness and sensitivity to supply chain (Customer- organization-Supplier) has become vital and accordingly the expanse of the word Quality has really gone beyond conventional meaning.

The kind of line and staff way of functioning has created separate compartments for both Quality and HR as Departments. These are being looked upon as disciplines like marketing, production, purchase etc. These became separate responsibility centers to deal with issues of quality and human beings. Although Quality and HR are vital to all departments and disciplines, we have introduced a weakness in the organizations by confining them behind department walls and reducing their relevance and applicability. By implication, it meant quality and human resource management were separate and other functions had no responsibility in them which consequently rendered all functions weak.

ISO has thrown a different light on these two functions. These are not merely disciplines in conventional sense. They are rather a way of thinking and acting. Quality and HR essentially have enabling, supporting role of providing expertise, guidance to other functions in managing quality and human resources. Thus managing quality and HR is really speaking the responsibility of line managers. Every manager, irrespective of the function he/she heads, is also responsible for development, welfare, motivation, and growth of employees reporting to him/her.

Historically quality function focused only on one thing- to make consistent decisions regarding how much beyond specifications will be accepted without complaints by the customer! This defeated the importance of Quality Control Department in the managerial hierarchy.

Similarly in HR, the traditional focus was on “Do as Directed” especially for shop floor workmen. Organizations paid little attention towards human potential, human psychology, and hidden talent of employees. The HANDS were given more importance than BRAINS. HR remained insensitive towards possibilities, human beings offered for constructive applications. Under such situations quality is not possible.

ISO first time thought that quality is dynamic, it can be continuously improved. Basic theme being anything at any point of time can be improved, that includes human beings as well. Continual improvement can only come through commitment of management and involvement of employees, which are essentially two quality management principles on which entire ISO rests. This is how managing quality and managing human resources become inseparable.

1.2 Problem Statement

The specific research problem that is going to be investigated in this research study is how implementation of ISO 9001:2008 quality management system has an impact on various human resource practices in the context of automotive industry of Pune. Due to the quality management process we are zeroing on product quality as well as service quality, since it's of prime importance for both domestic and international clients. But the question is even if we talk about quality, how systems and processes will be driven will be completely based on how human resource is going to be impacted due to its presence. This implementation can have a positive or negative impact on human resources that's why it's important to study this topic.

Companies in the automotive sector of Pune region have the potential to serve to both domestic as well as international clients. With the presence of giants like Volkswagen, Tata and like others are already there which is the testimony, but along with these giants there are lot of new companies which have adopted ISO 9001:2008 and it was critical for them to respond to changing business needs. However, to sustain and prosper in this dynamic business environment, ISO will help them to be more systematic.

Although there are several studies pertaining to ISO and its implementation effects worldwide with different industries segments, there is still limited literature on how it has shaped in Pune's automotive industry.

This gap in studies calls for exploring and understanding ISO 9001:2008 quality management system from the human resource perspective, specific to automotive industry of Pune.

In summary, the results of this study will contribute to the automotive companies and also academics body of knowledge in an attempt to develop an understanding of ISO 9001:2008 quality management system and how it help in shaping human resources of these automotive companies.

1.3 Objectives of Study

1. To study the process of ISO 9001:2008 in large scale automobile industries, related to selected HR practices.

2. To study the process of ISO 9001:2008 in large scale automobile industries, with respect to Training and development practice of HRM.
3. To study the process of ISO 9001:2008 in large scale automobile industries, with respect to Recruitment and Selection practice of HRM.
4. To study the process of ISO 9001:2008 in large scale automobile industries, with respect to Organizational Development practice of HRM
5. To study the impact of changes in the Training and Development due to ISO 9001: 2008 certifications.
6. To study the impact of changes in the Recruitment and Selection due to ISO 9001: 2008 certifications.
7. To study the impact of changes in the Organizational Development due to ISO 9001: 2008 certifications.
8. To study the various benefits received by the employees due to the implementation of ISO 9001:2008.
9. To study the benefits received by the automobile industry itself, due to the implementation of ISO 9001:2008.
10. To study the evaluation of impact of ISO 9001:2008 is associated with the tenure of person served with the organization.

1.4 Research Questions

1. Whether evaluation of effectiveness of ISO 9001:2008 is associated with the tenure of person served with the organization?
2. Whether ISO 9001:2008 certification is associated with the improvement in training and development with respect to the tenure of the person served with the organization?
3. Whether following ISO 9001:2008 guidelines has an impact on Improvement in Recruitment and Selection?
4. Whether there is relationship between change in Organizational Development activity due to ISO 9001:2008 implementation and Improvement in Organizational Development activity?
5. Whether there is any difference in the extent of benefits perceived by employees due to the implementation of ISO 9001:2008 certification?

6. Whether there is any difference in the extent of benefits perceived by companies due to the implementation of ISO 9001:2008 certification?
7. Whether there is any difference in the extent of improvements perceived by employees in HR practices due to the implementation of ISO 9001:2008 certification?

1.5 Hypotheses

1. **H₀** : There is no association between evaluation of effectiveness of ISO 9001:2008 and the tenure of the employee served with the organization.

H₁ : There is association between evaluation of effectiveness of ISO 9001:2008 and the tenure of the employee served with the organization.

2. **H₀** : There is no association between ISO 9001:2008 certification and improvement in T & D , with respect to the tenure of the employee served with the organization.

H₁ : There is association between ISO 9001:2008 certification and improvement in T & D , with respect to the tenure of the employee served with the organization.

3. **H₀** : Following ISO 9001:2008 guidelines has no impact on improvement in R & S .

H₁ : Following ISO 9001:2008 guidelines has impact on improvement in R & S.

4. **H₀** : There is no relationship between change in OD activity due to ISO 9001:2008 implantation and improvement in OD activity .

H₁ : There is significant relationship between change in OD activity due to ISO 9001:2008 implementation and improvement in OD activity.

5. **H₀** : There is no difference in the extent of benefits perceived by employee due to the implantation of ISO 9001:2008 certification .

H₁ : There is difference in the extent of benefits perceived by employee due to the implementation of ISO 9001:2008 certification.

6. **H₀** : There is no difference in the extent of benefits perceived by organization due to implementation of ISO 9001:2008 certification.

H₁ : There is difference in the extent of benefits perceived by organization due to implementation of ISO 9001:2008 certification.

7. **H₀** : There is no difference in the extent of improvement perceived by employees in HR practices due to implementation of ISO 9001:2008 certification.

H₁ : There is difference in the extent of improvement perceived by employees in HR practices due to implantation of ISO 9001:2008 certification.

1.6 Scope of Research

This study investigates large scale automotive industry of Pune. The automotive industry has been selected for this study; as it represents a process driven industry. Furthermore, the automotive industry particularly of Pune makes a significant contribution in providing high quality products domestically as well as internationally and because of this it generates thousands of jobs which require a process driven culture to manage such a huge manpower.

The population for this study was managers of automotive industry of Pune region. The respondents were the managers of these automotive companies who are completely aware and have knowledge about the organization's ISO 9001:2008 implementation before and after the adaptation of quality management systems.

1. The research is restricted to large scale automobile industries in Pune region, which are ISO 9001:2008 certified during the period of 2002-2012. It covers large scale automobile industries in and around Pune city, Pimpri Chinchwad , Ranjangaon , and Khed Shivapur.
2. The researcher has selected seventeen large scale automobile industries in Pune region.
3. Three major HR practices are selected by the researcher those are Recruitment & Selection (R & S), Training & Development (T& D) and Organizational Development interventions (OD).
4. Researcher has covered automotive component manufacturing and two and four wheeler manufacturing companies in Pune region.
5. According to the details provided by **Maratha Chamber Of Commerce, Industry & Agriculture (MCCIA)**, Pune , there are total 17 large scale automobile industries

, in Pune , which are ISO 9001:2008 certified during the period 2002 – 2012. Out of total 17 automobile industries 9 are automobile manufacturing industries and 8 are automobile component manufacturing industries. All 17 industries are covered by the researcher.

1.7 Significance of the Study

The current study involved examining whether ISO 9001:2008 has an impact on selected human resource practices in large scale automotive industry of Pune, also the study will focus on demographics which will help to answers its relationship with other ISO aspects. However most of the organizations implement ISO but fail to focus on related human resource aspects as signified by the standard. ISO has taken sufficient care of human resources, their competence, knowledge, awareness and work environment which is crucial; since we are talking for many years that industry needs five resources namely- Men, Machinery, Materials, Methods and Money. In the bargain we focus on other resources and tend to overlook importance of human beings. However for managers, successfully running the business was a difficult task, particularly in the automotive industry of Pune, due to resource and labor-intensive businesses and dynamic business environments. This makes understanding the rationale behind this is even more challenging.

From a practical perspective, the results of this study might offer new insights for managers of large scale automotive industry of Pune. The results should help them to become more aware and knowledgeable about how ISO impact human resource practices and help them to devise a strategy for workforces and businesses to gain a competitive advantage in a dynamic business environment.

Chapter – 2

Literature Review

- 2.1 Introduction and Scope of the Literature Review**
- 2.2 History of Human Resource Management**
- 2.3 Current advancements in Human Resource Management**
 - 2.3.1 Recruitment and Selection (R&S)**
 - 2.3.2 ISO Related Training and Development (T&D)**
 - 2.3.3 Organization Development (OD)**
- 2.4 HRM and TQM**
- 2.5 Different ISO Standards and their Role in the quality of Human Resource Management**
- 2.6 Impact of ISO implementation on HRM & TQM and Interrelation between HRM and TQM**
 - 2.6.1 ISO Certification and HRM**
 - 2.6.2 ISO and Total Quality Management**
 - 2.6.3 HRM and TQM**
- 2.7 Research Gap in Literature review**

2.8 Conclusion

LITERATURE REVIEW

2.1 Introduction and Scope of the Literature Review

Human Resource Management is a very core and sensitive area in the management of any organization. Organization is made by its personal and not the machines and equipment it owns. Over last 2 decades, we are observing dynamic changes in the field of HRM. The scope of this literature review is as follows:

- To study the journey of HRM so far, along with current advancements and challenges in the field of R&S, T&D and OD
- Role of TQM in Human Resource Management.
- Role of ISO 9001:2008 in Human Resource Management
- Impact of ISO certification on R&S, T&D and OD

As a source of primary data, researcher has referred to and studied various ISO Standards, Books on HRM, R&S, T&D, OD and QMS. As a source of secondary data, researcher has referred to various Research Papers and Scholarly Articles published nationally and internationally.

2.2 History of Human Resource Management

(www.whatishumanresource.com)As the nature of the people function changed, its name also changed from time to time. In early 1870s, it was named as Industrial Welfare. In 1890, Frederick Taylor, known as the father of the Scientific Management played an important role in the development of personal function and there on, it was named as Personnel Management which was more or less a Staffing Function. Going forward in 1930s, as a result of globalization, technological advancement and impact of Hawthorne Studies' done by Elton Mayo and Fritz Roethlisberger, the importance and need of holistic approach towards managing the human resources was felt. Hence to fulfill the need of strategic planning by anticipating changes in future and aligning the various elements of the organization to enhance the organizational effectiveness, the personal management function was further developed and was named as Human Resource Management. Detailed journey of HRM is stated in the form of a table given in chapter 1.

For effective utilization of the workforce towards the fulfillment of not only the organizational goals but also the individual and group goals, the HRM came into existence. HRM focuses on the people side of the management.

2.3 Current advancement in Human Resource Management

Over a decade HRM is one of the fields which have changed dynamically. With the changing time, there are new challenges coming up in the way of HRM. The current advancement demands that HR Managers should also have the knowledge operational aspects of the organization such as strategic planning, competitive pressures, ROI, cost of production etc. Time demands their synchronization with the higher management in designing the HR strategies.

Following are the current advancements in the field of HRM(PravinDurai, 2010)

1. Changing nature of work: Changing technology is the fundamental reason of changing work nature. Traditional jobs are also becoming technologically challenging, which in return demands technically sound work forces. The soundness in technical aspects needs more educational levels and more skills. Specially in India, where the service sector is a key role player in the job market, fulfilling the demand of technically sound work forces brings new challenge in terms of demands of such better informed employees, as they expect unconventional work environments and excellent HR practices which meet the international standards. HR Managers need to develop plans and strategies to fulfill the demands of these new generation of employees. Another challenge is to make these employees gel with organizational work culture as they are more focused on their individual career advancements.

Multi-skilled workforces are increasing day by day due to availability of online higher educational programs and certifications. Though they add value to the organization it is a challenge to meet their increasing expectations. Organizations are also changing heterogeneously as the number of women employees, physically and socially challenged employees and migrated employees is increasing day by day; HR manager has to deal with culturally diverse work groups.

To meet this challenge, they have to come up with gender based or talent specific HR policies.

2. Increasing scope of HR activities

HRM has become the global function. Due to globalization, organizations have an opportunity to sell the products or services, in several countries around the world. HR manager has to meet challenge of integrating global HR operations and successfully handle the cross-cultural issues arising due to the diverse workforces in global environment.

3. Increasing prominence of HRIS

Due to globalization, size of organization is increasing day by day which demands automation of HR operations like recruitment, training, appraisal, payroll etc. Large companies require HRIS to effectively coordinate different HR operations. HRIS is defined as interrelated components working together to collect process store and disseminate information to support decision making, coordination, control, analysis and visualization of an organization's HRM activities.

HRIS not only helps HR manager in automating the routine activities like updating employee information but also produce a variety of reports in short span of time.

4. Changing Labor market

On one side when organizations are facing crunch of competent people, on other hand there is a challenge of managing large scale unskilled and under skilled workforces in the organization.

HR managers hence need to have long term planning of fulfilling the competency requirements by means of skill development of the workforces.

5. High performance work systems

As a result of intensified global competition HR managers have to adopt effective and dynamic HR policies and practices along with high performance work systems which will maximize the competence commitment skills and abilities of the employees.

6. Demand for effective measurement tools for evaluation of HR program

To meet the requirement of expressing the performance of HR plans and strategies, in measurable terms in front of the top management, HR managers need to focus on the development of reliable and accurate HR tools to measure the efficiency of HR functions. This is also necessary to provide concrete and quantified evidences of the contribution of HR department in accomplishment of organizational plans, goals and objectives.

(Sharma, Personnel and Human Resource Management , 2011)With all these changing scenarios, top management has started understanding the importance of the quality for withstanding in the competitive world and attain customer satisfaction. To meet this challenge, many organizations have adopted TQM techniques. Philip Crosby, a businessman who contributed to Quality Management Practices and initiated the Zero- Defect Program, believes that ‘HR should be the architect of corporate culture’. Building values and practices with support continues improvement in quality in the organization is the function of HR department.HR department, starting this process within the department itself. It is very important to make quality a way of life. Once this approach is totally adopted by HR department it can support the adoption of the same throughout the organization. While adopting TQM techniques some of the HR practices need to be reviewed as they can have a significance impact on quality. These functions are Recruitment and Selection, Training and Development, Performance Management, Payroll, Industrial Relations and Communication.

HRM is a very essential function for any growing or dynamic organization looking for success in this rigorously changing and competitive world. This is a way by which employees and employer can adopt with the new situation and employer can work towards development of employees potential to the fullest and utilize same for the benefit of the organization and the employees too.

Good HR practices ensure that every individual is aware of his contribution and importance in the organization and the employer will have the confidence that their workforces can work to the levels needed and even beyond that. Following are the steps needed to transform conventional HR practices into quality- oriented HR Practices.

1. A focus on the organization, rather than the job
2. A focus on understanding business as well as the business language
3. Support group performance over individual performance
4. Egalitarianism than hierarchy
5. Change rather than stability
6. Participation rather than command and control

As the new trends in HRM demand for implementation of TQM techniques & ISO standardization and ensure the quality requirements are met, similarly the three main focuses of

this research viz. R&S, T&D and OD also have the new trends emerging. These emerging trends are studies with the focus of understanding the role of TQM techniques& ISO standardization in coping up with these emerging trends.

2.3.1 Recruitment and Selection

With the time, sources and methods of recruitment and selection have dynamically changed.

Apart from the traditional recruitment sources like newspaper advertisement, employee referrals and campus selection there are lots of new and innovative recruitment techniques available in the market now. Internet is a key role player in the process of recruitment and selection now. It has opened gateways of official websites of the companies, job portals and social networking sites.

We even observe the change in advertisements published by the organizations for hiring new talent in the market. The new talent which is knowledge empowered gives equal importance to the brand and culture of the organization besides just looking for the job profile and salary.

The decades' research in the field of selection has devised new tools to indicate candidates' performance, on the job performance in terms of productivity and quality. Initially there were only 3 interacting parts of the process of TQM viz. People, Processes and Technology. Managements now have understood the need of 4th dimension which is behavioral competencies. Organizations who have adopted TQM approach need individuals with problem solving and team work abilities. Hence these abilities also need to be tested during selection process.

Following are the new advancement in the field of recruitment and selection.(hrtrendinstitute.com, 2017)

1. Reactive recruitment to proactive recruitment

Initially the recruitment was done only when the requirements were identified or vacancies were available in the organizations. This was reactive type of recruitment process. HR analytics has helped to a great extent to improve the quality of workforce planning. Now on the basis of the upward trends in demand and the capabilities which will be needed in future workforce planning is done. This is the proactive recruitment process which ensures that the company will not face talent crunch.

2. Recruiting for assignment

Instead of hiring for a job nowadays, companies hire for the assignments. When they have the assignment, they search for a self-employed profession with good knowledge to complete it.

There are various online platforms available with such services for exa.upwork.com.

3. Competency and value based selections

Now instead of hiring personal on the basis of skill they look for the talent. Where there is a good fit between values & personality of the organization and the value & competencies of the candidate. Nowadays companies have defined strategic plan for the growth which require specific behavioral competencies. Behavioral event interview techniques were introduced to find out personnel with the required behavioral competencies.

4. Use of games in recruitment and selection

As discussed earlier highly educated and talented workforces demand for unconventional work environments, now games are introduced as a part of R & S process to attract more talent for the organization. These games are specially designed to understand the competencies and the skills of the candidate based on his or her game behavior end results.

5. Fading up of traineeships

Nowadays companies cannot afford to invest time and money to bring the new comers to the level of required skills. Hence we see that the requirement of trainees is vanishing from the organizations. Instead of traineeships, organizations expect that the candidate or new comer has gathered required skills by means of internships or part time work they have done while studying and thus are ready to use from day one.

6. Virtual interviews

Because of the globalization best candidates are sourced across the globe. Hence every time it is not possible to meet the candidate face to face for the interview. Techniques like video calls are used to create the interview atmosphere virtually. Also in assignment based recruitments, selected candidates are not bound to come daily to the office for work.

With all these dynamic changes in R&S it is important to maintain the quality of these processes. Technological advancements in recruitment and selection tools and techniques also add to the challenge of maintaining the quality of these processes. ISO standardization underlines the importance of careful selection of human resources based on the required skill levels to perform a particular job. This is very important in terms of meeting and maintaining the quality standards of the products and services offered by the organization's helps to the great extent in meticulously following the R&S process defined by the organization. It also provides guidelines, design the effective R&S process based on the skill and competencies requirements of the company.

2.3.2 Training and Development for ISO certification(Sharma, Personnel and Human Resource Management, 2011)

Training and development is the major feature of TQM programs and ISO standards. Training is generally job specific and is provided to enhance knowledge, acquire/ sharpen skills and for positive changes in attitude/behavior. Training topics include problem solving techniques, problem analysis, and statistical process control and quality measurement which are beyond specific job skills. Apart from these programs, extensive trainings are conducted on group process and group decision making. Customer service forecast is another area of training which is crucial in terms of meeting the quality expectations.

Most of the organizations have this style where careers move up in the hierarchy. But the requirement of TQM is different. TQM requires employees having the knowledge of big picture and expertise in a particular function. It more often calls for cross functional experience and more power & decision-making authority in the hands of individuals at the lower level.

ISO(https://www.iso.org/files/live/sites/isoorg/files/archive/pdf/en/developing_talent.pdf, 2016) extends the technical assistance and training programs for ISO members. These trainings are more focused on increasing awareness on standards, capacity building, enhancing regional cooperation and supporting participation in government work of ISO, improving information and communication technology (ICT) and assisting national standard boards (NSB) to adopt good management practices in order to improve their governance, operational effectiveness as well as efficiency, while ensuring long term financial sustainability.

ISO also contribute in ensuring the periodic quality and effectiveness of the training programs conducted by the organizations internally for their employees.ISO TS 16949(2009) also speaks about training and on the job training (section 6.2.2.3).Training requirements in this standard (clause 6.2.2.2) specially meets the increasing requirement of skilled workers, knowledge workers mentioned above. This will provide the pathway to the organization to overcome the scarcity of knowledge workers because of the advanced skilled trainings organized by the companies internally.

On the job training (clause 6.2.2.3) speaks about the need of on the job training for the new comers as well as for the members who are put on the new processes. This clause particularly aims towards attaining the quality of the products and/or services of the company.

2.3.3 Organizational Development(Wendell L. French C. H., 2006)

Organizational development is an organizational improvement strategy. Beckhard(1969) defined OD as, “Organizational development is an effort planned, organizational wide and managed from the top to increase organizational effectiveness and health through planned interventions in the organizations’ processes using behavioral science knowledge. Another definition by Bennis(1969)states ,”organizational development is a response to change a complex educational strategy intended to change the beliefs, attitude, values and structure of organizations so that they can better adopt to new technologies, market and challenges and the dizzying rate of change itself.

From these definitions following characteristics of OD can be listed

- OD’s focus is culture and processes
- Collaboration between leaders and members for effectively managing culture and processes
- OD focuses on human and social side of organization and not on technological and structural side.
- Participation and involvement in problem solving and decision making by all levels of the organization
- OD aims at total system improvement

- Organizational improvement is an ongoing process due to dynamically changing work environments
- OD takes developmental view for the betterment of both individuals and the organization
- OD processes fine-tune perception of filling and people involving them in identifying strengths and areas of improvement of their organization and making action plans for improvement
- Redesigning work so that it is more meaningful and motivating and make people participate and be in team leading role
- OD processes promote democracy
- OD works towards achieving people oriented processes with the focus of designing human-technical systems
- It also plays a vital role to bring right people together to talk constructively about important organizational issues and develop processes for making this better

Following are the OD interventions considered in the scope of this research:(Gary Dessler)

- 1) Performance Management System
- 2) Training and Development
- 3) Career Planning and Succession Planning
- 4) Industrial Safety
- 5) Housekeeping Initiatives.

Sr. No.	OD Intervention	Definition
1	Performance Management System	A Process that consolidates goal setting, performance appraisals and development into a single common system, the aim of which is to ensure that the employee's performance is supporting the company's strategic aims.
2	Training and Development	Training: The process of teaching new employees the basic skills they need to perform their jobs is training. Development: Any attempt to improve current or future performance by impacting knowledge, changing attitudes, or increasing skills is development.
3	Career Planning and Succession Planning	A process through which openings are planned for and eventually filled internally.
4	Industrial Safety	Industrial safety is defined as policies and protections put in place to ensure plant and factory worker protection from hazards that could cause injury.
5	Housekeeping Initiatives	Housekeeping is the care and management of property and the provision of equipment and services (as for an industrial organization)

(Source of definitions given in the table above: Human Resource Management: 11th Edition: Gary Dessler, BijuVarkkey, Pearson Publication; <https://www.merriam-webster.com>; www.yourdictionary.com)

Following are the new challenges in T&D field (P. Nick Blanchard, 2012)

1. Aligning business with training and strategy

As the business environment over the last decade has changed rapidly and this will continue for the time ahead, organizations have to continuously be on their toes to meet changing conditions.

To meet these changing conditions, organization also needs people who can take day to day decisions which are in line with the business strategy. Trainings designed specially to

support the strategic direction of the company leads to better performance. Good bottom line results and inhabits adaptability throughout the organization.

2. Challenge of managing talent due to changing demographics

Unlike other countries, India has advantage of good amount of young population where the world will face the workforce shortage of 32 to 39 million by 2020. India will have a surplus of people in the working age group. However the challenge in front of India is talent development and management. If the surplus of people are not developed then India will face crunch of skilled workforce as well as it will result in the challenge of unemployment. The talent development can be achieved by the continuous and focused efforts of skill development, trainings.

3. Diversity

There is a scenario that four generations are working together in the organization. Most of the organizations face the challenge of bridging the gap between the older manager and the younger subordinate. Where the older managers are sometimes working on part time basis after retirement and younger workers are well conversant with technologies which allow them to work flexibly from anywhere. Younger workers are more inclined towards balanced lifestyle.

These bridging programs mainly focus on cooperation and problem solving. Hence these trainings are not only important to manage the issue of diversity but should be also aligned to the business goals.

4. Knowledge Workers

Peter Drucker, an Austrian born Management Consultant and the author of many philosophical and practical foundations for business books and well known for the concept “Management by Objectives and Self-Control”, was of the opinion that, “investment in productive assets is a critical function of management. Production equipment was most valuable assets in the 20th century. In the 21st century, a company’s most valuable assets will be “Knowledge Workers (KWs)”. This term clearly indicates

the importance and criticality of the skills and knowledge of its employees for the organization.

Indian service sector has been growing with the growing demand of the knowledge workers. Challenge is faced by many organizations, when it comes to retention of knowledge worker which is the most intangible asset of any organization. Other big challenges are attracting these Knowledge Workers and providing them much needed challenging work environment. Many organizations lack in developing special strategies for these KWs and develop effective training & educational programs for them. To cope up with these challenging situations and considering the increasing cost of outsourcing the knowledge processes, Indian companies have started creating positions like “Chief Knowledge Officer” reflecting the importance they give to knowledge management.

5. Developing Right Talent

(Cappelli, 2005)As Discussed above, it will be important for the organizations to secure employees with the right Skill Set. (Carnevale, 2005)Because of the changes in technology, job design etc. it is necessary to take efforts in retaining more than 75 percent of the workforce with the changes in their current job. The remaining 25 percent workforce will create a shortage of 20 million workers by 2020 in the field which needs advance skills and provide highest economic values.(Anonymous, Jul 2005)A survey conducted in the manufacturing industries for the senior executives indicated that replacing retiring skill workers will cost the companies INR 1.28 billion per year. To make up with the scarcity of the KWs, companies will have to create their own talent. For this, many organizations are taking following initiatives using their training functions.

- Training programs for recruitment and selection process (e. g. recruiter training, behavioral best interviews etc.)
- Programs for retention for knowledge workers (e. g. Orientation performance review)
- Programs on assessment and tracking job requirement and employee competency(HRIS systems)
- Development of R & D systems which shall increase the speed of obtaining knowledge in return widening the training opportunities

With changing technologies another challenge is that, the organizations need to continuously upgrade the knowledge of their employees to meet the competitive environment. Demand of high quality product or service by the customer and aggressive global economy, collectively demand that the organizations should have KW's at every level that are more knowledgeable, fully committed to the quality, good in judgment and demonstrate more competencies than ever before.

Rapidly changing environments demand that the organizations should generate equally fast responses to survive and prosper. Planned changes are more likely to be successful than unplanned changes. The changing business environments have brought new dimensions to the organizational development and transformation which are as follows:

1. **Change interventions**(Wendell L. French C. H., 2010)

The change interventions comprise of two traditional approaches- Organizational Development (OD) and Organizational Transformation (OT).OD is relatively well defined in terms of technology theory and research. However OT on the other hand is immerging, highly experimental and radically changing field. Following table shows the perspectives of both OD and OT at a glance.

Sr. No.	Organization Development (OD)	Organizational Transformation(OT)
1	A set of behavioral science theories, values, strategies and techniques	A set of behavioral science theories, values, strategies and techniques
2	Aimed at the planned change of organizational work setting	Aim at the planned change of organizational vision and work settings
3	Creating a better fit between the organization's capabilities and its current environmental demands	Promoting paradigmatic change that helps the organization better fit
4	Promoting changes that help the organization to better fit predicted future environments	Create durable future environment

2. Organizational target variables

Organizational change variables majorly affect organizational visions and work settings.

Organizational vision is based on following 3 factors-

- Beliefs and principles of the organization
- Sustainable Organizational purpose resulting these beliefs
- Change mission which is in line with the organizational purpose and shifts the organization towards the achievement of it

Work settings have multiple facets like frameworks. They can be further divided into following four sub-variables.

- Organizational arrangements
- Social factors
- Technology
- Physical settings

These four streams are based on the vision, which provides the direction for the achievement of the same.

3. Individual Organizational members

Individual organizational members need to adopt with new on the job behaviors to make the organization cope up with the change. Each of these cognitive changes leads to the corresponding change in the behavior. E.g. A paradigm shift from product driven to customer responses alters existing behaviors, create new behavior and give individual employees a total new perspective towards their work. The level and depth of behavioral changes correspond to the shift in individual's cognitive behavior.

4. Organizational Outcomes

There are two types of organizational outcomes-

- Organizational performance measured in terms of productivity, profitability, efficiency effectiveness and quality

- Organizational performance based on individual development, alteration of world views, range of behaviors and their improved skills and abilities.

With all these changing scenarios, standardization of the OD interventions and transformations is a key role player. ISO standards provide a basis for establishing a constantly monitoring system in the purview of analyzing and maintain the standard of such interventions. As these processes are dynamic and involve everyone from the top management to the way down to the lower levels, they are extremely sensitive and need close monitoring.

2.4 HRM and TQM(Joseph M. Juran)

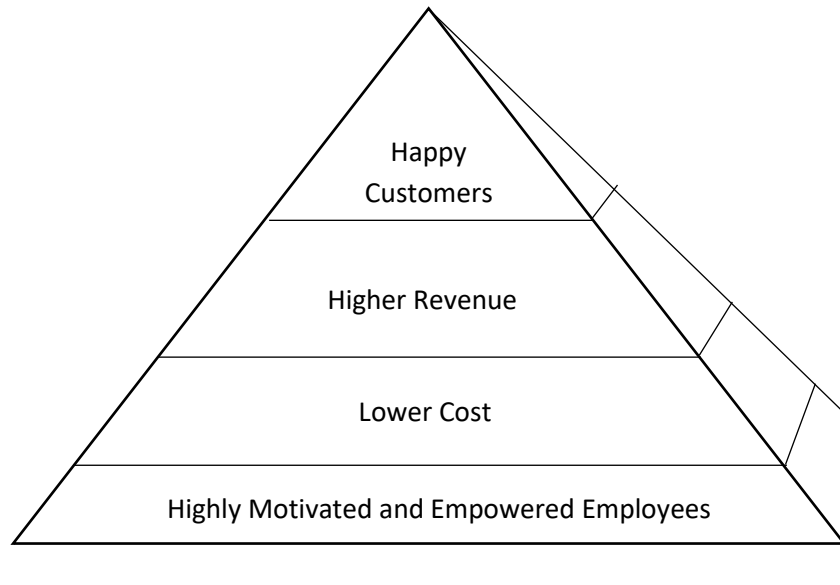
As Joseph M. Juran, campaigner of Quality and Quality Management rightly said, “Just as the 20th century was the century of productivity, the 21st century will be the Quality Century”, we see that the success of business and its quality go hand in hand. Over last 20 years, companies have completely changed the way of their business. The processes they have used which led them to the success are now collectively known as “Total Quality Management”.

The Major challenges companies have faced in last two decades are International competition, new companies with fresh and newly formulated business strategies and new technologies. This ignited the thought of redefining the business for the old players in the market.

According to A. Blanton Godfrey, a Quality Guru, “Most of the companies have found that redefining the company structure, downsizing and numerous quality programs may have helped them to survive but still they do not have the distinctive Quality Advantage. Their future will be determined by three key areas Viz. Continuous Improvement, Customer Focus and the value of every member of the organization.” HRM is one of the core functions of any organization which deals with the three key areas stated above.

It is the vision of the organizations that the highly motivated and empowered employees are the means of achieving customer satisfaction with lower costs and higher revenues. Hence all the leading organizations have realized that creating such highly motivated and

empowered employees is the aim of TQM. The vision of the organizations is just not solving the problems of today but also avoiding the problems of tomorrow. Their vision of the highly motivated and empowered employees set up new expectations viz. employees are in self-control, they can measure their own quality of work and interpret the measurement with means available and compare it with the organization goals supported by the corrective action when there is a misalignment.



Reference of Figure: Juran's Quality Handbook: 5th Edition, Joseph M. Juran, A. Blanton Godfrey, McGRAW- Hill International Edition

Highly motivated and empowered employees are thus the basis of Lower Costs, Higher Revenue and Customer Satisfaction. Hence HRM is a vital element in TQM

The 8 Dimensions of TQM are as follows: (Angel R. Martínez-Lorente)

1. Top Management Support
2. Quality Data and Reporting
3. Workforce Management
4. Employee Attitude and Behavior
5. Supplier Relationship
6. Customer Relationship
7. Product Design Process
8. Process Flow Management

The three fundamental concepts of TQM:

- 1) **Customer Focus:** The basis of the existence of any organization is providing goods or services to its customer. Hence it is very obvious that the Customer Focus is the fundamental basis of TQM in any organization. But initially what matters for any organization is to produce a quality product which is unique in the market. Customers come at a later stage; hence they have very less inputs for improving the product quality at this stage.

Another study is that, many companies find that retaining the existing customers is far more profitable than acquiring the new customers. Finally the journey of the company is from the Customer Satisfaction to the Customer Retention to the Customer Loyalty. Hence Customer Loyalty is becoming the Fundamental element of the Strategic Planning of the organizations.

- 2) **Continuous Improvement:** Any change in the existing process is unwelcomed. This was the scenario in the society as well as the companies which are the subset of the society. But after World War II, Japan was far behind in commercial production and hence was struggling for the survival. Japan adopted rapid improvements for the survival. The same technique was then adopted by the others who were facing the cut-throat competition.

What we see now is, rapid change has become the new lingo of life and the same has been adopted by the organizations for creating improvements.

- 3) **Value of every Member of the Organization:** For many years companies have propagated that their strength is their employees, but most of the time it is just a hollow statement and they still have the Taylor System in place.

Each member of the organization can not only contribute an innovative idea but they can also contribute as a member of a quality planning team or high-performance team or self-directing teams. Now the companies have started establishing a strong connection between culture & values of the companies and their quality excellence; which resulted into the emphasis on employee contribution in maintaining their Quality Policy. The efforts were taken to bring all the employees in the process of improvement by developing Quality Management Systems internally.

Finally as the definition of the Employee Empowerment is the process where people have knowledge, skills, authorities and desires to decide, act and take responsibility for the results of their actions and for the contribution to the success of the company.

Further to the finding that Empowered Employees are the bedrocks of the TQM, following are the criteria and the points associated with them, defined by Malcolm Baldrige National Quality Awards which clearly states the importance of HRM in TQM.

4.1 Human Resource Planning and Evaluation	20 of 1000
4.2 High- Performance Work Systems	45 of 1000
4.3 Employee Education, Training and Development	50 of 1000
4.4 Employee well-being and satisfaction	25 of 1000
6.3 Human resource results	35 of 1000

Apart from these, Customer Focus and Satisfaction under section 7 of this quality award, depends largely on the organization contacts, services and delivery; which again indicates the importance of well-managed human resources of the organization.

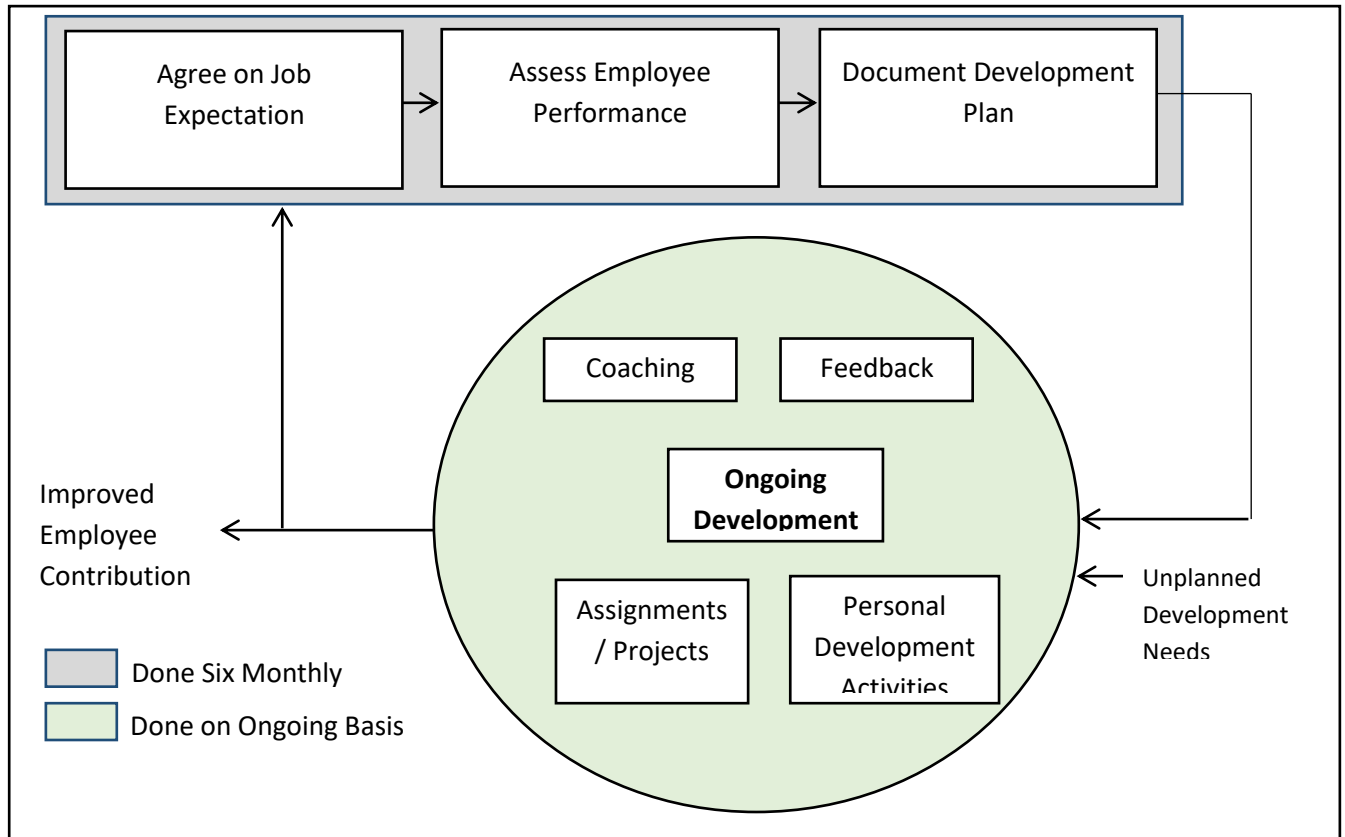
Organizational Development in Total Quality Organizations

Many Organizations, after lots of trials and tribulations understand the need of special culture within the organization to sustain the continuous improvement, which is a key to successful total quality system. Healthy human relations are the basis of the motivated culture of any organization. Following are the cultural building blocks stated by W.R. Garwood and Gary L. Hallen:

1. **Open Communication:** Employees should have the open access to the relevant information. The communication shall be clear in terms of clarity, timeliness, trust worthy and last be not the least, supported by the data and facts. Key steps to the Open Communication are as follows:
 - a. **Freedom from Fear:** Employees' feedback and ideas are essential and they can be only obtained if employees trust that they can give their suggestions

and comments without fear. When they believe that they would not have to face the blame, retaliation or any other action by management.

- b. **Data Orientation:** When the facts and data are available for the employees' perusal, they can contribute towards customer satisfaction in a better way. Proper training for employees is also necessary to understand, interpret and take decision based on the facts and data available.
 - c. **Sharing Business Goals and Results:** To grow the sense of ownership it is important that employees have clear knowledge of Business Goals, Sales Objectives, Cost incurred, Earnings and Customer Satisfaction etc. They should have the clarity about how their work contributes to the attainment of Organizational goals.
2. **Trust:** It has to be multidirectional Viz. up, down and lateral as well. The agents of trust are fairness, respect for the others' opinions and integrity. And the factors which hinder the growth of trust are dishonesty, creating rumors, isolating people, breaking promises and breaching agreements.
3. **Employment Stability:** It is one of the biggest objectives of the TQM as a huge investment is done in the training and a huge time is invested in building the trust on which TQM is built.
4. **Performance Appraisals and Coaching:** Performance Appraisal and Coaching is the most sensitive aspect of the Human Relations. If Performance Appraisals are done only with the motive of Coaching, they are constructive and if they are done with the motive of only grading the employees for the raise in their pay then it is distractive. It not only affects the individual performance of the employee but also affects his teamwork and therefore the continuous improvement process. Following is the model of Organization's development and coaching process, where the key role player is HRM.



Reference of Figure: Juran's Quality Handbook: 5th Edition, Joseph M. Juran, A. Blanton Godfrey, McGRAW- Hill International Edition, pg. 15.9)

Comparison between Traditional Organization and TQM Empowered Organization

Element	Traditional Organization	TQM Empowered Organization
Guidance	Procedures / Rules are followed	Principle Based Action Plan
Employee's Focus is on	Satisfying the Immediate Boss	Satisfying the customer and achieving the business goals
Skill Based Flexibility	One skill	Multi-Skill
Involvement	Low	High
Ownership	Follow instructions, wait for permission	Takes initiative, can- do attitude

Employer's outlook towards Employees	Hands for doing the work	Human beings with head, heart and hand
Leadership for processes	Managers only	Managers and Operators
Element	Traditional Organization	TQM Empowered Organization
Management Communication is	Paternalistic	Adult to adult
Responsibility of Continuous Improvement	Management	Shared by everyone
Unit defined by	Functions (Eg. Manufacturing)	Work process which may include different functions
Administrative decisions	By Management	Responsibility is shared by team members and managers
Quality Control	Responsibility of Lab	Team capability

Selection Process in Total Quality Organizations(Joseph M. Juran)

In traditional organizations, the selection procedure is based on the skills required for the particular job. In TQM organizations more emphasis is put on the behavioral competencies, to ensure the good cultural fit of the new comer in the organization, as TQM organizations demand for collaborative work environments and continuous improvement. Following are some of the key behavioral competencies on which the interviewee is assessed during selection process:

- Team Work
- Initiative
- Oral Communication
- Clear judgment
- Problem Solving
- Quick learner
- Planning and Organizing

- Required knowledge of the Professional / Technical Skills
- Leadership
- Influencing Skills
- Adaptability

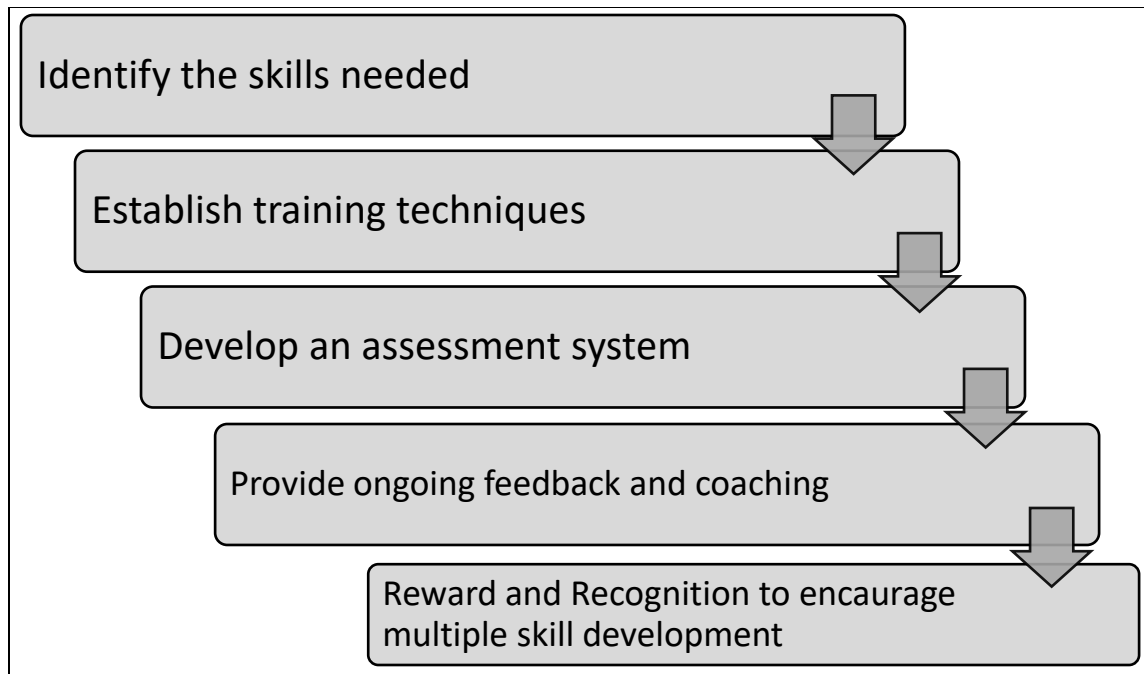
Selection process of TQM focused organizations not only include the written test and rounds of interviews, set up for the assessment of the required skill levels but also include the test in which the interviewee is put into the real time situation where their collaborative interactions with peers are tested. Many times the peers involved in this process are the employees of the organization. Their feedback is also considered prior to the final selection of the candidate.

Training and Development in Total Quality Organizations:(Joseph M. Juran)

Many organizations fail to implement the successful total quality management system due to lack and inconsistency of the effective training programs. Effective training is the main capacity building agent. Many total quality organizations have adopted the approach of the making education strategy the part of their corporate strategy. Three vital elements required for the successful training are as follows:

1. Desire (on the part of the employee)
2. Authority (defined and bestowed by the management)
3. Worker Capability for achieving the expected results

Multi-skilled employees are the bedrocks of organization's flexibility and effective team work. Hence many organizations emphasize on development of the multi-skilled employees and hence it becomes the key objective of their training activity. Steps of developing multi-skilled program are as follows:



Training for Effectiveness and its Assessment: To ensure the effectiveness of the training throughout the organization, first top management is trained and then the middle management and at last lower levels are trained.

Also to encourage employees to undergo training, some companies bring the variable pay schemes, like bonus on successful completion of the minimum training hours. Reward and Recognition is used as a tool for encouraging employees to develop their skills by undergoing the training.

Organizations also set the assessment process for assessing the effectiveness of the training program. It is not only essential to ensure required skill level for working on hazardous process or multi-skilled jobs but it also works as a vital element of the feedback mechanism for improving the quality of the training programs.

Development Programs for Social Skills: Development programs for Social Skills include skills of personal interaction, group dynamics, conflict management, decision making etc. Also cross trainings are provided to the employees to understand and if necessary to perform the jobs of the other team members, which leads to their better

understanding of the organization and its various functions. They portray the big picture in front of them which helps in development of ownership of the employees and boost them to work for continuous improvement and customer happiness.

2.5 Different ISO Standards and their Role in Quality Human Resource Management(JagdeepKairon, 2005)

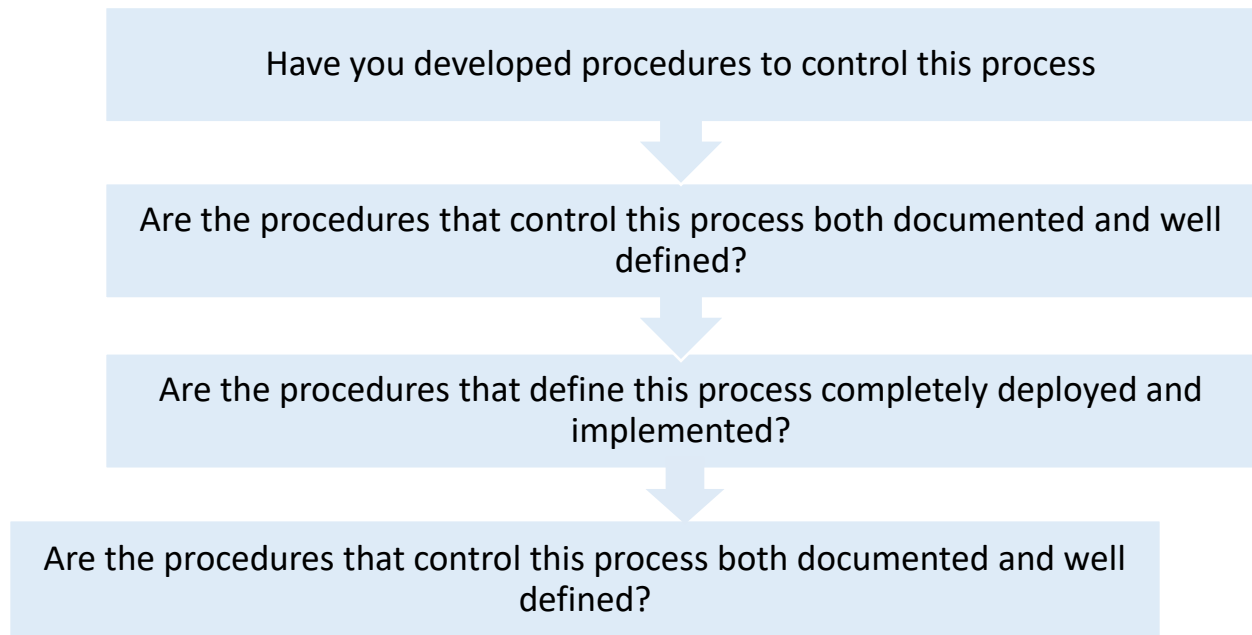
Here researcher is primarily considering ISO 9001:2008 standards as the scope of detailed study. Other standards are also studied to understand the advancements in the new standards introduced by ISO. ISO standards are equally helpful for both product and service oriented organizations to achieve the standards of quality which are recognized and respected throughout the world. This helps organization to launch their product in the global market and expand the business. ISO is an International Organization for standardization. ISO was established in 1947, in Switzerland to develop common international standards in varied areas. The first ISO standard was published in 1987 and the first revised standard was republished in 1994. These ISO 9000 standards propose a single set of standards which people accepts across the lengths and breadth of the world.

The primary three reasons which are observed of why organizations decide to do ISO Standardization are as follows:

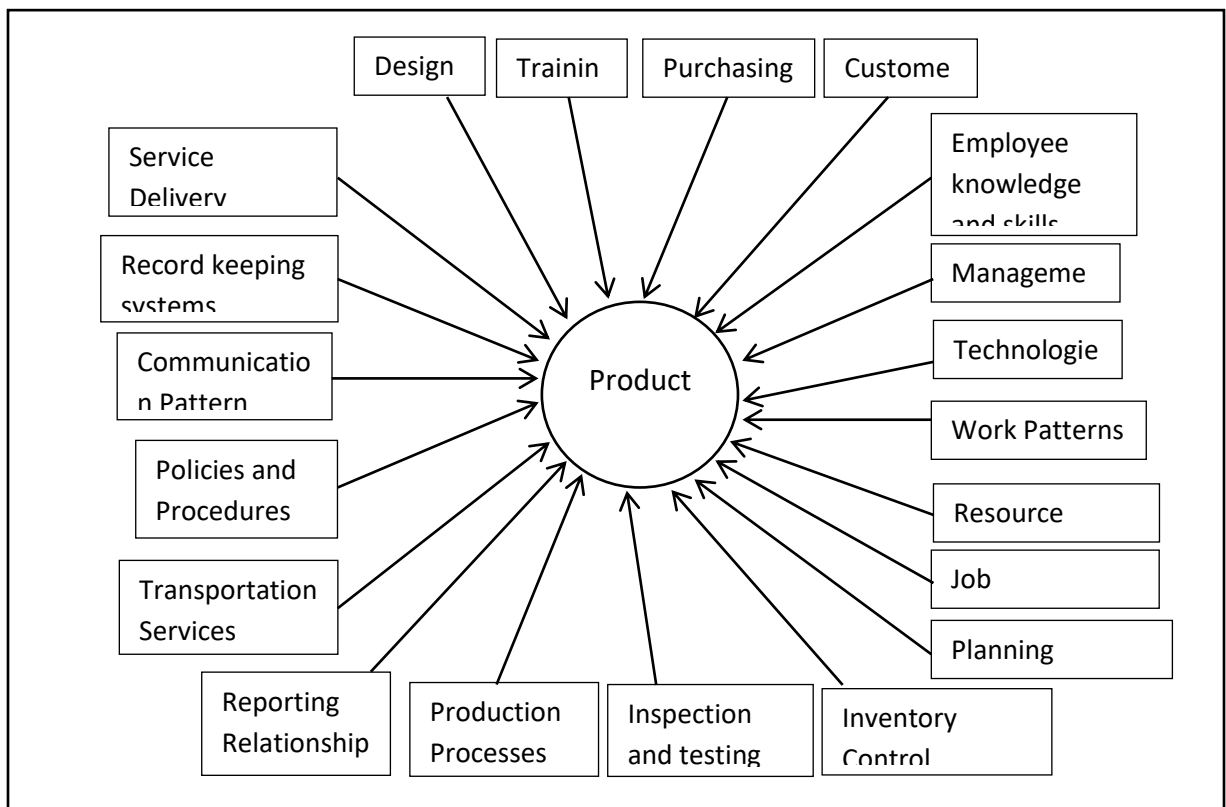
1. Organizations feel the need of controlling and improving the quality of its products and services to reduce the cost associated with poor quality
2. To become more competitive in the market
3. To meet the client's requirements to close the deal
4. To comply with Government Mandate

Quality of the product majorly depends on the process followed for the making of it. Once your Quality Process is developed and is in place, comes the time of evaluating it. ISO standards set clear guidelines for evaluating the quality system process which meets the standards requirements.

Following are the steps proposed by ISO for evaluating a Quality System Process:



ISO assumes that following are the quality factors which influence the quality of the product:



ISO is only interested in the qualities or characteristics. Though general qualities are defined by ISO, at some levels, Companies have freedom to select the qualities which will define their own quality system. This is because the specific quality of the product is based on what the company and its customer wants and not based on what ISO wants.

Eight Pillars / Quality Management Principles of ISO

- Customer Focus
- Leadership
- Involvement of People
- Process Approach
- System Approach to management
- Continual improvement
- Factual approach to decision making
- Mutually beneficial Supplier relationships (Reference: iso.org)

ISO speaks in terms of requirements when they expect the organization to implement the qualities they have identified.

Functional areas / Program requirements of ISO's quality system can be listed as follows:

1. Leadership requirements
2. Product Design requirements
3. Purchasing requirements
4. Contract Review requirements
5. Production Requirements
6. Inventory Management requirements
7. Inspection and Testing requirements
8. Nonconformance Management requirements
9. Measurement requirements
10. Service requirements
11. Internal Audit requirements
12. Training requirements

Process requirements of ISO's quality system are as follows:

1. Define your leadership policy
2. Develop your leadership procedure
3. Design Managerial planning process
4. Specify your leadership instructions
5. Clarify who will provide leadership
6. How leadership activities will be documented
7. Kind of leadership records will be maintained
8. Kind of leadership technologies will be used
9. Leadership resources that will be allocated

Quality Audits of ISO

There are two types of ISO audits Viz. Standard Audit and Procedure Audit. The Standard Audit evaluates how well the ISO standard is implemented and the Procedure Audit evaluates the efficiency of procedures, policies, plans and instruction.

ISO / TS 16949 (2009): Particular requirements for application of ISO 9001:2008 Automotive Production (Members, 2009)

This is the ISO Technical Standard which is designed especially with the motive of providing continual improvement, reducing defects and waste in supply chain management in Automobile Industries. International Automotive Task Force (IATF) in collaboration with Technical Committee of ISO developed this standard based to harmonize the country specific regulations of QMS. This standard majorly focuses on design, production, installation and servicing of automotive related products. Researcher studied this standard and found that the section 6.2 which primarily speaks about the Human Resources has some special requirements of Product Design Skills, Training and Employee Motivation and Empowerment, under section 6.2.2. As the focus of this research is primarily the Automobile Sector in Pune region, researcher thinks it important to refer to this standard and bring forward the special provision done in the section 6.2 in the purview of automobile sector.

Following chart shows the salient features of provisions for Human Resources, of both ISO 9001:2008 and ISO TS 16949 (2009) standards

Section	Title	ISO 9001: 2008	ISO TS 16949 (2009)
6.2	Human Resources		
6.2.1	General Requirements	Yes	Yes
6.2.2.	Competence, Training and Awareness	Yes	Yes
6.2.2.1	Product Design Skills	No	Yes
6.2.2.2	Training	No	Yes
6.2.2.3	Training on the job	No	Yes
6.2.2.4	Employee Motivation and Empowerment	No	Yes

Following is the extract from the ISO TS 16949 (2009) published by ISO. These requirements are specific to Automobile Sector and come under the scope of HRM.

6.2.2.1 Product Design Skills

The organization shall ensure that personnel with product design responsibility are competent to achieve design requirements and are skilled in applicable tools and techniques.

Applicable tools and techniques shall be identified by the organization.

6.2.2.2 Training

The organization shall establish and maintain documented procedures for identifying training needs and achieving competence of all personnel performing activities affecting conformity to product requirements. Personnel performing specific assigned tasks shall be qualified, as required, with particular attention to the satisfaction of customer requirements.

NOTE 1: This applies to all employees having an effect on quality at all levels of the organization.

NOTE 2: An example of the customer-specific requirements is the application of digitized mathematically based data.

6.2.2.3 Training on the job

The organization shall provide on-the-job training for personnel in any new or modified job affecting conformity to product requirements, including contract or agency personnel. Personnel whose work can affect quality shall be informed about the consequences to the customer of nonconformity to quality requirements.

6.2.2.4 Employee motivation and empowerment

The organization shall have a process to motivate employees to achieve quality objectives, to make continual improvements, and to create an environment to promote innovation. The process shall include the promotion of quality and technological awareness throughout the whole organization.

The organization shall have a process to measure the extent to which its personnel are aware of the relevance and importance of their activities and how they contribute to the achievement of the quality objectives [see 6,2.2 d)].

2.6 Impact of ISO implementation on HRM & TQM and interrelation between HRM and TQM

In this section researcher has summarized the findings collected from the study of research papers.

2.6.1 ISO Certification and HRM

ISO QMS as one of the tools, used under the total quality management concept for the development of human resources, assumed its importance during late 90s. Even though ISO is a system standard originated in 1987, (which was also a period of transition from Personnel function to Human Resource Development era in India) it was adopted and

followed by a number of Indian Companies and used it for the development of their human resources. As a human resource development tool, it was found to be effective for improving the level of performance of employees in various sectors. A number of studies have been conducted all over the world on various aspects of Total Quality Management, ISO and employee performance by individual research scholars, research organizations and other agencies. There were a number of eminent thinkers and managerial experts who were considered as the gurus of total quality management concept. The researcher has attempted to review the contributions of ISO QMS and its impact on HR practices of Automotive Companies in Pune in this chapter. An attempt had also been made to review some of the relevant studies available in the area of Total Quality Management, ISO and Employee performance, in order to provide a theoretical background to the present study.

(Sharma C. , 2013)Chitra Sharma found that along with quality and process improvement, ISO can also work as an administrative tool that focuses more on personal development, increased motivational level, better understanding of process, skill upgradation and increased decision making skills of members.

(Chaudhury, 2012)Sunil Kumar Pradhan and Dr. Suman Kalyan Chaudhury conducted a study to know the performance management system and how it helps in organizational development, to assess the efficacy of performance management as a tool for HR interventions and to know how performance management leads to employee satisfaction, which ultimately increases employee retention. The study found that the main purpose of performance management is to link personal and organizational goals to gain best possible platform to the employees to perform at the highest level.

(Wiggin, 2012) H. James Harrington Frank Oehi & Hal Wiggin analyzed the quality and productivity problems and improvement opportunities in construction industry. It was found that there has been slow change over to TQM culture. It was suggested that improved quality and productivity is needed to eliminate high levels of waste in the construction industry which is possible through HR route.

(Vouzas, 2011)Dr. Fotis Vouzas did a literature based research of “The Human Factor in Quality – Examining the ISO 9000 and Business Excellence frameworks in selected Greek

Organizations.” His study of literature demonstrates that the effective utilization of Human Resources plays a key role in successful implementation of QMS. Organizations’ point of view, towards their Human Capital and functionality of HR department, impact the Quality Improvement Programs and Initiatives to a great extent.

According to the author, only recently, quality experts, researchers and professionals have started realizing that, the Human Resources are at the core of the Quality Mission of the organizations and their effective participation in the training programs and dedication for the implementation of QMS defines the success of the organizations in their Quality Mission. Hence addressing the HR issues shall be the top agenda of the top management and it is almost a primary requirement for the implementation of successful quality improvement processes. He also mentions that, the positive change in the organization’s point of view towards HR function is observed and HR function in these organizations plays a major role in designing and implementation of Quality Assurance System (QAS). He also found that, in some organization QAS are implemented within HR departments as a result of which, active participation and dedication of both managers and employees is looked upon as a major component of success. On the other hand, author also found that, when organizations travel from Quality Assurance to Quality Management, they focus more on ‘Process’ than ‘People’ and hence they fail to justify the contribution factor of their staff, therefore the training pertaining to the Quality Management are provided only to the people who are actually involved in production process.

The conclusion of his study is ISO 9000:2000 seemed to lack in its efforts on HR Policies and Practices which are the prerequisites for the certification from 3rd party. On the other hand the Quality Awards like External Quality Assessment (EQA) Awards go into the depths of systematic designing and implementation of the HR Processes and Policies.

He also concludes that though the ISO 9000:2000 certified organizations are aware of the fundamental principles and tools of quality improvement process but are still lagging behind in adopting a company-wide approach to Quality Management. According to him, this is an outcome of short term implementation of Quality Assurance System and rigidity about some aspects of quality, which organizations think are difficult to deal with.

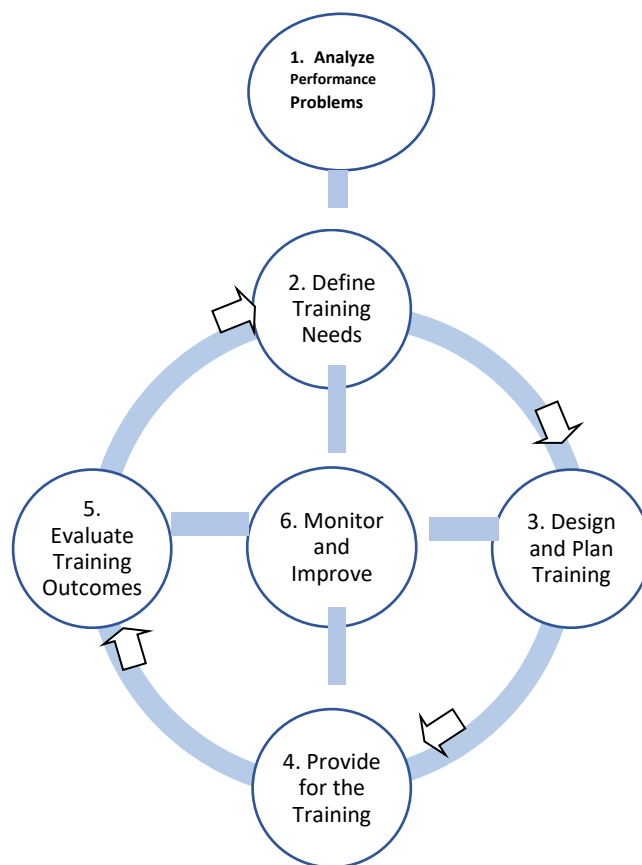
Arif Hassan (Hassan, 2009) , in his research paper titled “ISO Certification and Human Resource Management” , carried out a research based on data collected from 238 employees from four ISO Certified co. and four non ISO certified companies in Qualalumpur , Malaysia . These organizations belong to different types of industries, operation sizes and application of Technology. According to his study , he has identified that organizations faces numerous challenges like e business, wide usage of Information Technology and Internet, rapid advancement in technology ,last but not the least Globalization of the market. He believes that Human Resource is a critical factor in effective handling of these challenges and successful organizations have gone mile ahead in effective management of Human Resources. However many of the organizations have not understood the role and importance of HR in strategic planning. And hence they overlook the contribution of human capital in developing the economic state of the co.

The researcher has compared the HR practices carried out in ISO certified and non ISO certified companies and found that ISO certified companies obtains higher ratings on Recruitment and selection (i.e. manpower planning) , potential appraisal and promotion system. But the analysis shows no major difference between the two on the other dimensions of the HRM systems. It includes learning and training system, role analysis, performance guidance, coaching and mentoring, organizational development initiatives, reward and recognition system. In both thecases involvement of employees, motivation level was poor. And according to them, the present HR system and practices are inadequate to meet the challenges of global competitions, achieving quality and customer satisfaction.

In conclusion he claims that ISO certified organizations were more similar than different and better off with non ISO certified organizations on most of the HRM systems and practices.

In the article titled “A proposed interpretation of the ISO 10015 and Implications for HRD Theory and Research”(Ronald L. Jacobs, 2007), written by Ronald L. Jacobs, Bryan Wang , states that 6.2.2 of ISO 9000 family focuses on competence awareness and training. It is the basic requirement that ensures the employees performing the task are competent enough to achieve the quality of the product or service.

Many organizations face this problem. To overcome the problem, in December 1999, appropriate tool for assuring the quality of training, ISO 10015 was developed by a panel of experts from twenty two countries and issued by ISO secretariat. One of the benefits of ISO 10015 is that HRD professionals can execute all aspects of the training design process without being asked by the management to exclude any steps. It ensures that HRD professionals are committed to follow best practices in training which consists of four stages 1. Define training needs 2. Plan and design the training programs 3. Provide the training 4. Evaluate the training outcome. The monitoring mechanism examines the outcome of training program. It is a continuous process which results into continuous improvement.

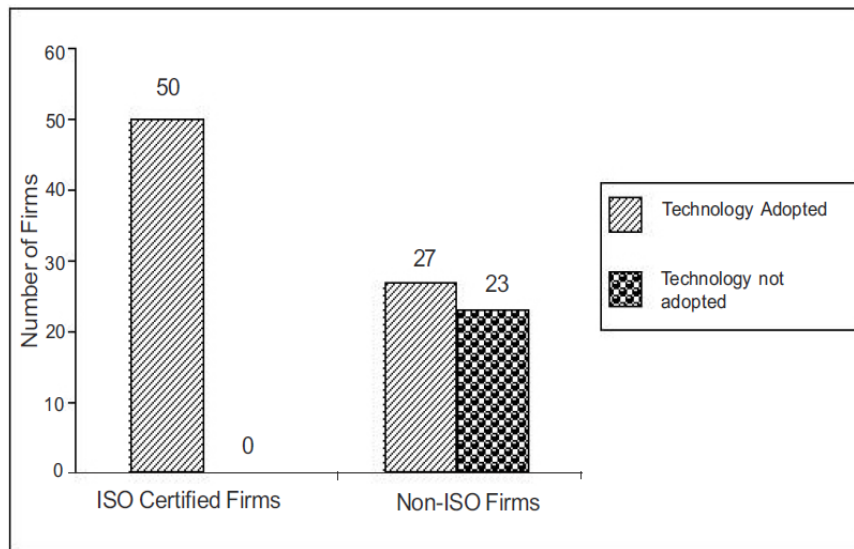


Proposed Six Phase Interpretation. (Center on Education and Training for Employment, 2005)

In the research paper “A Comparative Study of Human Resource Management Practices and Advance Technology Adoption of SMEs with and without ISO Certification “By SwamyRenuka, BalajiVenkateswara(Venkateshwara, 2006) , the authors did a comparative

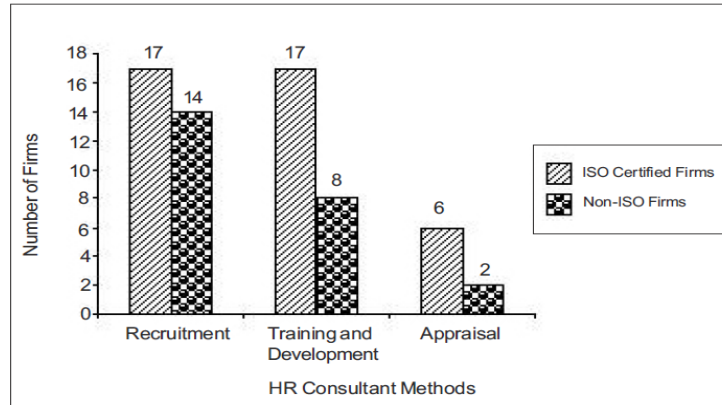
study of 310 ISO Certified and ISO Non Certified SMEs, to analyze the impact of ISO certification on HRM Practices and Advance Technology Adoption. They believe that the technological advancements have transformed the Production, communication and transportation processes and hence ultimately the work style and workers. They have also come to a conclusion, that the skilled worker contributes to the growth of the middle scale and small scale companies and hence it is one of the important factors for them to achieve the success in the global market. Skilled worker also contribute in reducing the cost of production. Both of these two things are only achievable if good HRM practices are in place. Growing Companies are more susceptible to the failures if they do not adopt good HRM practices, as they have to cope-up with the challenges emerging due to their increasing size. After this study, authors came up with the following conclusions:

1. ISO Certified SMEs have adopted advance technology completely, where the non ISO SMEs failed to do so
2. Response rate of non ISO SMEs to the technological challenges imparted by the economic world as compared to ISO SMEs.

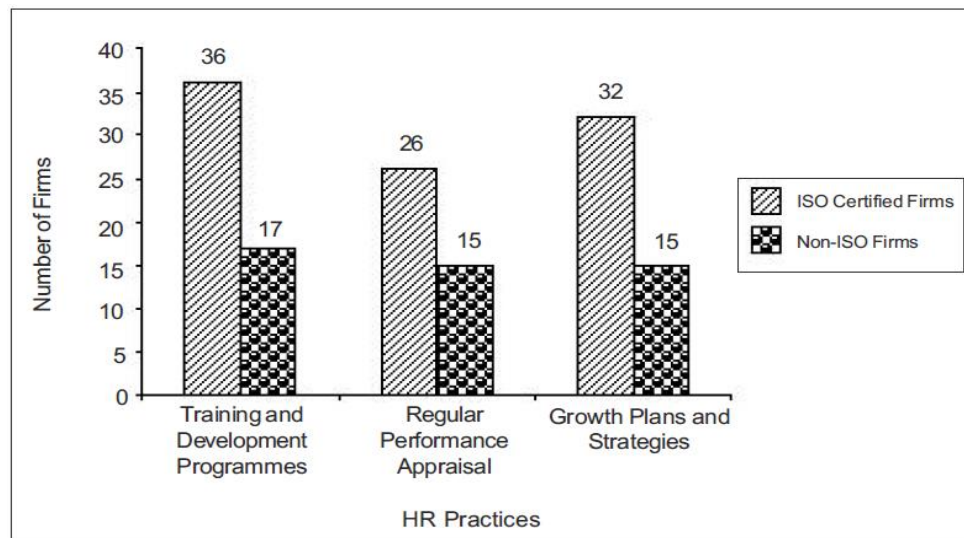


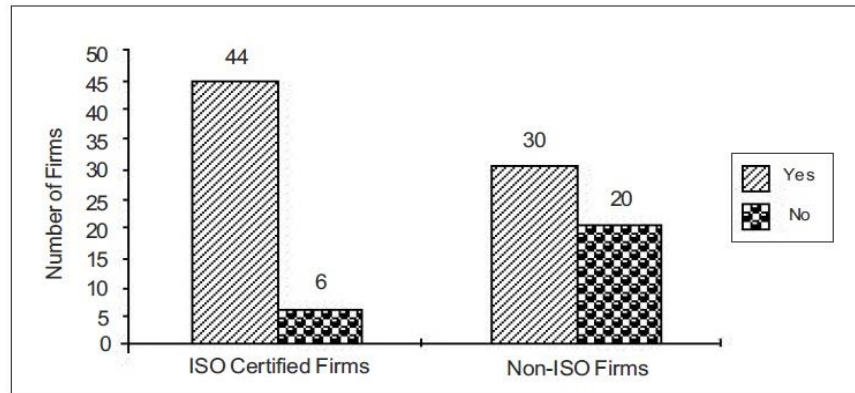
3. ISO SMEs have employed more number of employees then the Non- ISO SMEs, but the authors have not gone in the depth of this finding
4. ISO SMEs are more actively use the information technology. They have adopted the use of emails and web pages on a large scale.

5. Unlike non ISO SMEs, ISO SMEs believe in taking help from HR Consultants and follow the HRM practices like T&D, Performance Appraisal and Strategic Growth Plans.



6. Most Significant difference between Non- ISO SMEs and ISO SMEs is the issues pertaining to adoption of advance technology, Implementation of Management Techniques, TNI methods and practicing the HRM Practices. Being well aware of coping up with the benefits of these technological advances, ISO SMEs are keen to adopt them and ultimately improve their performance qualitatively and quantitatively.





(Zaidi, 2012) Syed Sheharyar Zaidi that, among all the resources, human resource is the most valuable asset for attaining the primary goal – profit making, of any organization. The study also proved that in the present day competitive environment, where innovation is the only true source of gaining competitive advantage, the importance of human resource is more than ever. They identified the importance of training and the need of training as an ongoing process.

(Senthil Genesh, 2005) Senthil Genesh & Jerme Joseph regarded performance reviews as one of the most complex and controversial human resource techniques in organizations. The study explored the domain of cognitive complexity of 40 executive appraises by examining perceived organization formalization and experiential perceptions of performance review system complexity as predictors of appraises executive alienation in performance review systems.

(Sanjeet Singh, 2011) Sanjeet Singh, Gagan Deep Sharma and Harman Deep Cheema examined the effects of performance appraisal on an individual as well as on the organizations. The research found that there is noticeable impact of performance appraisal on the organization as well as on the individual.

(Waheed, 2013) Abdul Hameed and Aamer Waheed analyzed the theoretical framework and models related to employee performance. The study found that the success or failure of the organization largely depends on employee performance. Therefore organizations are investing huge amount of money on employee development. The study also highlighted the relationship between employee development variables (employee learning, skill growth, self-directed and employee attitude) and employee performance variable.

(Management, 2011)Right Management proved that- Engaged employees lead to increased productivity. Employee engagement drives improved organizational performance. The research confirmed that engagement leads to higher financial performance, higher customer satisfaction and higher employee retention.

(V.K. Khanna, 2007)V. K. Khanna, B. S. Sahay, PremVrat& Ravi Shankar studied the main contributing variables to enhance TQM index are leadership, strategic planning, customer and market focus, and human resource focus in both the market scenario. Indian automobile sector had also adopted TQM path but it is still a player of little consequences in the global perspective. One of the major reasons for dismal performance of the Indian automobile sector can be attributed to the fact that it has not been able to prioritize and focus on key variables, which are instrumental in enhancing human performance.

(K.S., 2005)Divakaran Nair K.S attempted to develop an instrument for assessing human resource quality. It also aimed at measuring the impact of total quality management efforts on human resource quality using the instrument. The study identified two such tools namely quality improvement teams and quality control circles.

(Sasmita Palo, 2003)Sasmita Palo and Nayantara Padhi found that training creates awareness, builds employees commitment to quality policy and strategy, facilitates team work, enhances performance standards and bolsters the skills and abilities of employees. However, the organization needs to focus more upon improving communication competencies, multiple skill development and customer value training successful training in the organization needs more budgetary allocation and commitment, support and enthusiasm of the top management.

2.6.2 ISO and Total Quality Management

Mr. Hongyi Sun(Sun, 2000) , in his research paper “Total Quality Management, ISO 9000 Certification and performance improvement “ states that the TQM criteria like human resource development , quality leadership , quality information directly contributes to the improvement of business performance and customer satisfaction. But none of the above criteria guarantees about enhanced performance. Collectively these criteria contribute to the

improvement of the performance. Further the author recommends that ISO 9000 should be incorporated with the philosophy and methods of TQM.

Mr. S.SubbaRao, T.S. Raghu-Nathan and Luis E. Solis (S.Subba Rao, 1997) in his research paper, “Does ISO 9000 have an effect on quality management practices? An International empirical study” carries out the research to find out the impact of ISO certification on the quality management systems in the organization. He states that, in the past few years, it has been observed that, industries have shown great interest in ISO 9000 standards. Millions of companies are already ISO certified. However it is necessary to find out whether only the effectiveness of ISO 9000 standards helps to bring the quality culture within the organization? The findings of the research paper shows that the ISO certified and registered companies shows higher level of quality culture , strategic quality planning , Human resource development , customer satisfaction, supplier relationship , information and analysis.

Smaller Enterprises’ Experiences with ISO 9000(Alan Brown, 1997)The Study done in Australia, showcases few facts about the ISO certification requirements in Smaller Organizations, which are as follows:

1. Worldwide push of ISO has impacted smaller organization than the larger organizations.
2. To meet the customer demands or to maintain the competitive position in the market, smaller organizations face a strong pressure to undergo ISO certification.
3. Larger organizations also put pressure on their suppliers to do the ISO 9000 series certification
4. In some states of Australia, government departments have set the requirements of ISO certification for filing the tender

Author also notes that the smaller organizations in Australia were reluctant to undergo the certification due to the high cost of the certification and its limited benefits for smaller organizations. However to address this issue, Australian Quality Council has introduced a low cost partial ISO 9000 training course especially for SMEs.

Further research by the author states that though there are several driving forces for the ISO certification, market related factors; customer service, efficiency and kick-start for quality management are the three stronger factors amongst them. He divided these driving forces into two categories viz. internal reasons pertaining to the quality and efficiency improvement and external reasons which are based on the market need. Some of the internal factors are base for quality improvement, change in culture, new direction for restructuring, improved efficiency etc.; while some of the external factors are be considered for tenders, increased market share, stay in business, gain market share etc. Author found that, overall the external reasons / factors seem to be far more important than the internal reasons. However, he further states that the larger SMEs (branch or life-long supplier of the large company) undergo the certification just because the headquarters ask them to do so and they are least bother about the demands of the tenders, hence are reluctant about the external reasons. While the small SMEs are keener about the external reasons than the internal reasons as they do not aim at changing their culture.

Another purview is, most of the SMEs felt that both TQM and ISO could not be implemented simultaneously. Only few of them thought implementing TQM before ISO certification is better. It was also observed that, unless employees actively take part in forming the system, they will not wholeheartedly follow its processes. Also the respondents had a say that certification hasn't brought them any significant improvement in productivity, rate of wastage, staff motivation and retention. Ahead to that, they have not observed any significant increase in their market share both local and international.

This was also concluded that, the organizations which chose to undergo the certification for internal reasons got a better perspective about the realized improvements. This underlines the fact that success is not only dependent on external reasons.

Most commonly faced issue was the lack of commitment from managers, employees and unrealistic time commitments are the biggest issues faced by these organizations.

Many SMEs also recorded that, the some of the assessors have the knowledge of a particular industry, just fault-finding auditors, inflexibility of standards and assessors who cannot view outside their discipline. Also most importantly standards were seen as appropriate and

suitable only for manufacturing and not for other disciplines like construction, retail, wholesale distribution etc. Also the language used for writing these standards is not a layman's language, which makes them difficult for the common man to understand the standards fully and correctly. More precisely, if organizations go for this certification just as a reaction of the external pressures from governments or customers, it becomes even more difficult to achieve the improvements and the certification becomes the 'necessary evil'.

Similar research done in UK(Raynor, 1991), especially in the engineering and machinery manufacturing industry also states that the customer pressure is major factor behind ISO 9000 certification.

Another study done in Australia(Chan, 1996) also states that cost is the biggest factor which prevents small organization from undergoing ISO certification.

(O'Brien, 1995)In the study done in Australia on large, medium and small scale industries, author found that following 5 factors are less hindering factors for small scale industries viz. fewer levels of management, lack of management commitment, lack of inter departmental communication, less time spent and shorter targeted timeframes. These are the factors which can enhance the capability of the smaller industries in TQM.

The organizations in Northern Ireland (Taylor, Outcomes of consultancy interventions for ISO initiatives, June , 1993)were not willing to measure and quantify the benefits certification. According to the author, the main reason behind it could be the fact that they are driven for the certification by the external factors.

(Lloyds, 1994)A different view was found in UK, which states that the organizations have attained some benefits by ISO certification like using it as marketing tool, increased ability to bid for contract, reduced customer audits and gateway to the international market.

The study done in 442 Spanish Manufacturing Companies(Angel R. Martinez-Lorente, 2004) states that when TQM is applied with ISO standard, it doesn't really work out. ISO can provide good start for the implementation of TQM but going ahead, it has some opposing elements which hinder the TQM. Author states the similarities, differences and contradictory factors in TQM and ISO are given in the table below.

Similarities between TQM and ISO	Differences between TQM and ISO	Conflicts between TQM and ISO
Both speaks about process flow management	ISO speaks about improvements through prevention and closing NCs which is a passive focus. This is unlike the pro-activeness of TQM.	ISO demonstrates excessive bureaucracy that may lead to de motivation of the employees.
Both demands for data collection on Quality	ISO sets the procedures which focus on meeting only the design specifications completely.	Lack of flexibility and apply control on the suppliers. TQM speaks about establishing the relationship with the suppliers based on mutual trust.
Both apply Statistical Tools	Work development and participation is not addressed in ISO	TQM emphasizes on prevention, ISO emphasizes inspection

He concludes the research by saying that after implementation of TQM, the conflicting factors between ISO and TQM can affect the efficiency of the organization resulting in obtaining fewer results. Hence if the organization is a TQM organization, ISO certification is not required and would be a waste.

(www.researchgate.net)The study was conducted in 176 firms in Tunisia. Most of the Tunisian companies believe that implementing ISO 9000 before TQM leads to better performance. But author recommend that the ISO 9000 implementation shall include the philosophy and methods of TQM.

(Rap S.S., 1997)In the combine study done in USA, Mexico, India and China to form a global context; it was found that ISO 9000 companies exhibits higher level of Quality Leadership, Strategic Planning of Quality, Information and Analysis, Human Resource Development, Supply Relationship, Quality Assurance, Quality Results and Customer Orientation. However, it fails to deal with some important Facets of TQM like Leadership, Strategic Planning and Employee Engagement. Further to this study, a similar study was done in Singapore.(Hesan A. Quazi))The study done in 93 services industries, followed by construction and

manufacturing in Singapore reveals that the ISO certification does not affect quality management practices and quality results of firms in Singapore. However, hypothesis written for this research paper based on the literature review done states, that ISO 9000 quality programme improves participants' quality of work life, reduces cost of training and reduces supervision. ISO 9000 quality management system has a positive impact on human resource planning of an organization. (Anderson, 1999) In manufacturing firms in North America adopted ISO 9000 to signify the quality assurance to the external parties. The study also found that ISO 9000 complements TQM rather than substituting it.

(Kumar, 2011)Madhu Ranjan Kumar aimed to study how ISO context can be used to transform Indian bureaucracy. Study was conducted in six units of Indian Government. The study showed that, within the context of ISO, a prevalence of robust corrective and process based quality procedures and quality objectives aid the transition of ISO certified units toward total Quality Management.

(Joseph, 2010)Mathew Joseph analyzed the role of total quality management in selected ISO 9000 certified manufacturing organizations in Kerala and identified the specific role played by total quality management practices in getting ISO certification.

(R, 2010)Unnikrishnan Kartha N R conducted a study to analyze the impact of ISO 9001-2000 on quality management practices in various organizations in Kerala. The study revealed that ISO 9001-2000 had a great impact on quality and quality management practices in the identified organizations in Kerala.

(Nitin, 2006)Singh and Singla state that the quality management has assumed greater importance in today's highly competitive manufacturing industry. Quality Management System (QMS) has been widely implemented throughout the world. Many firms have arrived at the conclusion that effective QMS implementation can improve their competitive abilities and provide strategic advantage in the market place. The researchers are of the opinion that a flexible approach for implementation be adopted taking into account, the factors and forces prevalent in the industry.

(Lakhal L, 2006)Lakhal L,Pasin and Liman Mohammed explored the relation between quality management practices and their impact on Organizational performance. The practices were classified into three categories: management, infrastructure and core practices. There after a model linking these practices and performance is posed and empirically tested. The empirical data were obtained from a survey of 133 Tunisian companies from the plastic sector. The findings revealed a positive relationship between quality management practices and organizational performance.

2.6.3 HRM & TQM

The research paper titled as “The impact of human resource management practices on the implementation of total quality management: An empirical study on high tech firms”(Yang, 2006) , authored by Ching-Chow Yang expresses his views as – the major advantages of TQM implementation are improved quality and efficiency, increasing customer satisfaction which directly relates to improving competitiveness of the organization in the market. But many a times it is observed that the TQM is not successfully implemented and the major reason behind this is companies give very little attention to the human resource management. The findings of the research papers are HRM has significant impact on implementation of TQM practices. Further HRM practices have positive impact on TQM implementation. Successful implementation of HRM practices have direct impact on employee satisfaction, quality awareness of employees, also needs to focus aggressively on HRM, to increase the firms performance.

The author, Arif Hassan(Arif Hassan, 2006) explains the aim of the research paper titled “Human resource development practices as determinant of HRD climate and quality orientation” as to measure employees perception of HRD practices, to find out whether ISO certification leads to any improvement in HRD systems of the organization and to find out the role of HRD practices on overall development of the employees and quality orientation in the company. Further in the findings of the research paper , the authors says that organizations with better training and development , learning system , reward and recognition system , information system promoted HRD practices. Career planning, role efficacy, reward and recognition systems, employee performance helped to promote quality orientation in the organization.

(Lawler)David and Edward state in their article that the quality experts are now a days encouraging the companies to bring some basic changes in Recruitment, Training, Performance Appraisals and Pay Systems; but before HR department can stand as a change agent it needs to scrutinize its own practices. Study also states a belief that “People really do make quality happen.”

(Adrian Wilkinson, 1994)Adrian Wilkinson, Mich Marchington & Barrie Dale , examined the issues of Total Quality Management and the management of human resources. It suggested that while TQM had been identified as a major innovation in management practice, there had been a preoccupation with the ‘hard’ production – oriented aspects of TQM rather than the softer HRM elements. However, increasing attention is being paid to HR issues currently.

(Mathew, 1992)Mathew P Cevaluated the personnel management practices in the cooperative sector in Kerala and suggested the need for introducing modern personal management practices to improve the efficiency of the employees in the sector.

2.7 Research Gap in Literature review –

Following base research papers were considered by the researcher to carry out the present research.

1. The research paper titled “ **A comparative study of Human Resource Management practices and advanced technology adoption of SMEs with and without ISO certification** “ (Swamy D Renuka) , authored by Swami D Renuka and Balaji A Venkateshwara , focuses on two major aspects viz. adoption of advanced technology and implementation of ISO certification on HRM practices in SMEs in India. The research paper compares the effectiveness of HRM practices followed in SMEs and large scale organization. Also it compares the impact of ISO certification and adoption of advanced technology on HRM practices. In this research , the researcher has covered HRM practices like Human resource planning , systematic recruitment and selection , training and development program , written job description, regular performance appraisal , growth plan and strategies , management techniques like TQM. The finding of the research paper related to HRM practices are – ISO certified companies use more latest HR management techniques than non ISO firms , rigorously training need assessment is

done in ISO certified firms, for R & S and T & D , firms will prefer to take the help of external HR consultant , ISO certified firms place more emphasis on HRM practices than non ISO firms.

Renuka and Venkateshwara made a comparison between ISO-certified and non-ISO certified small and medium enterprises (SMEs) in India on the adoption of HRM practices and found few significant differences. The former were found to be better in terms of using professional services in recruitment, in organizing training and development programmes and in conducting regular performance appraisal. For example, among ISO-certified firms, 88 per cent conducted training need analysis as compared to 60 per cent of the SMEs that did not have ISO certification

Here the researcher of the above research paper compares the HRM practices in ISO certified and non ISO SMEs. All major HRM practices are covered by the researcher.

2. The research paper titled “ **ISO certification and Human Resource Management** “ (Hassan, ISO CERTIFICATION AND HUMAN RESOURCE MANAGEMENT, 2009) , **authored by Arif** Hassan tries to examine whether ISO certification are linked to improvement in HRM practices in Malaysian companies . Employee involvement and commitment is less at the initial stage of quality management plans. Employees contribution is restricted and training is provided only to the production department and employees involved in the QMS process. Researcher in this research, has covered total 8 Malaysian companies , out of which 4 were ISO certified and 4 companies were non ISO certified. The selected organizations represented different industries, size of operations, and technology. The researcher covered career system (i.e. manpower planning and recruitment , appraisal and promotion , career planning and development) , work system (i.e. role analysis, contextual analysis and performance appraisal) , development system (i.e. training and learning , performance development) , self renewal system (i.e. role efficacy , effectiveness of OD systems) and HRD systems (i.e. Organizational culture, reward and recognition , quality orientation).

The findings of the research were no significant difference was obtained on career systems, ISO-certified organizations obtained a significantly higher score on the contextual analysis aspect of work planning, Development system - No significant

difference was obtained between the two groups on any of the facets of the development system. Self renewal systems - endorsement for the self-renewal system was quite low, particularly for the action research and organizational development system. HRD Systems - no significant difference was found between the ISO and non-ISO groups on the overall HRD system. Both groups obtained low ratings on these dimensions.

In conclusion, the organizations with ISO certifications were more similar than different and better off with those who did not have these certifications on most of the HRM systems and practices. The HR department had only a peripheral role. This seems to apply to the ISO-certified companies included in the study.

3. The research paper titled “ **The Human Factor in Quality – Examining the ISO 9000 and Business Excellence frameworks in selected Greek Organizations**” (Vouzaz, The Human Factor in Quality – Examining the ISO 9000 and Business Excellence frameworks in selected Greek Organizations, 2011) authored by Dr. Fotis Vouzas , focuses to theoretically investigate the impact of ISO 9001:2000 on HR issues in selected Greek industrial organizations , with reference to quality improvement . The researcher selected two industrial organizations. Data was collected through extensive and in depth interviews. The study exhibits that organizations approach of quality is of great important for effective human resource utilization. The research is carried out on general HR practices implemented in the organization like performance appraisal , employee engagement , recruitment & selection , employee training, rewards and recognition . It also talks about the Quality awards like European Quality Award. in relation to people management and satisfaction/results. The ISO 9000:2000 seemed to represent the minimum effort on HR practices and policies an organization should present in order to achieve third party certification but quality award and specifically EQA award requires proof of systematic design and implementation of HR policies and practices. However, many argue that a company cannot win one of the quality awards without first being able to satisfy the requirements of the ISO 9000.

2.8 Conclusion -

The literature on implementation of Human Resources practices and its utilization related to quality improvement efforts is very limited, especially when the focus is on the relationship and the impact of the implementation of the ISO 9001: 2008 . The majority

of these studies is descriptive in nature, with many generalizations, and basically put the basis for a better understanding of the role of the personnel function in quality improvement efforts. **It appears that there are very few studies which has systematically investigated the impact of ISO certification on selected HRM practices , implemented in large scale automobile industries.**

After extensive Literature Review done by the researcher, it has been observed that, over a last two decades, many studies have carried out the impact ISO certification on the organizations. Until recently, there have been only few attempts made to check the impact of ISO certification on prevailing HRM practices.

Researcher primarily found that, substantial research has taken place to study correlation between HRM, TQM and ISO across the globe. This research has been done in different types of Industries. It is also observed that the impact studied varies from industry to industry. Not only that, but the impact also varies from country to country. The research that was carried out in some of the developed countries and some of the rapidly developing countries shows daisy results about the effectiveness of ISO implementation on HRM. On the other hand, they also found that ISO is very effective in Supply Chain, HRD, Quality Assurance, Customer Satisfaction etc. Some of the researchers also questioned the sustainability of the results of ISO Certification. The primary three reasons behind the ineffectiveness and un sustainability of ISO certification could be:

- 1) Failure in maintaining the ISO practices after certification
- 2) Lack of future development plan about Quality Improvements
- 3) Lack of understanding the actual concept of ISO certification and doing it for the sake of fulfilling the customers' requirements

Researcher also found that though the research underlines the role of HR in TQM, the real-time impacts of ISO on HR practices were hardly studied in India. Hence researcher decided to consider it, as her research topic. The Experts' Panel suggested the researcher to restrict the scope to limited HR practices and also restrict it geographically. Based upon these suggestions, researcher focused on three major HR practices viz. R&S, T&D and OD. Being resident of Pune, Researcher chose Pune region for research as it gave her

maximum opportunities to carry out her research. Researcher chose Automobile Industries, as Pune is a hub of many National and International Automobile Industries.

ISO Certification has a substantial positive impact on few HR parameters like Improvement in Quality, Process Improvement, Personal Development, and Increased Motivational Level, Better understanding of Processes, Skill Up-gradation and Increased Decision-Making Skills. It is also observed that PMS is used as a platform to link the personal and organizational goals.

Training and Development is a very important function as far as Quality Improvement is considered. The Literature Review underlines the fact that there is a need of improvement in it. Housekeeping initiatives for waste management are needed to be taken up by the industries. Literature Review shows that there is vast scope of improvement in Housekeeping.

Literature Review states that the Human Resources are at the core of the Quality Mission of the organizations and their effective participation in the training programs and dedication for the implementation of QMS defines the success of the organizations in their Quality Mission.

Chapter 3

Research Methodology

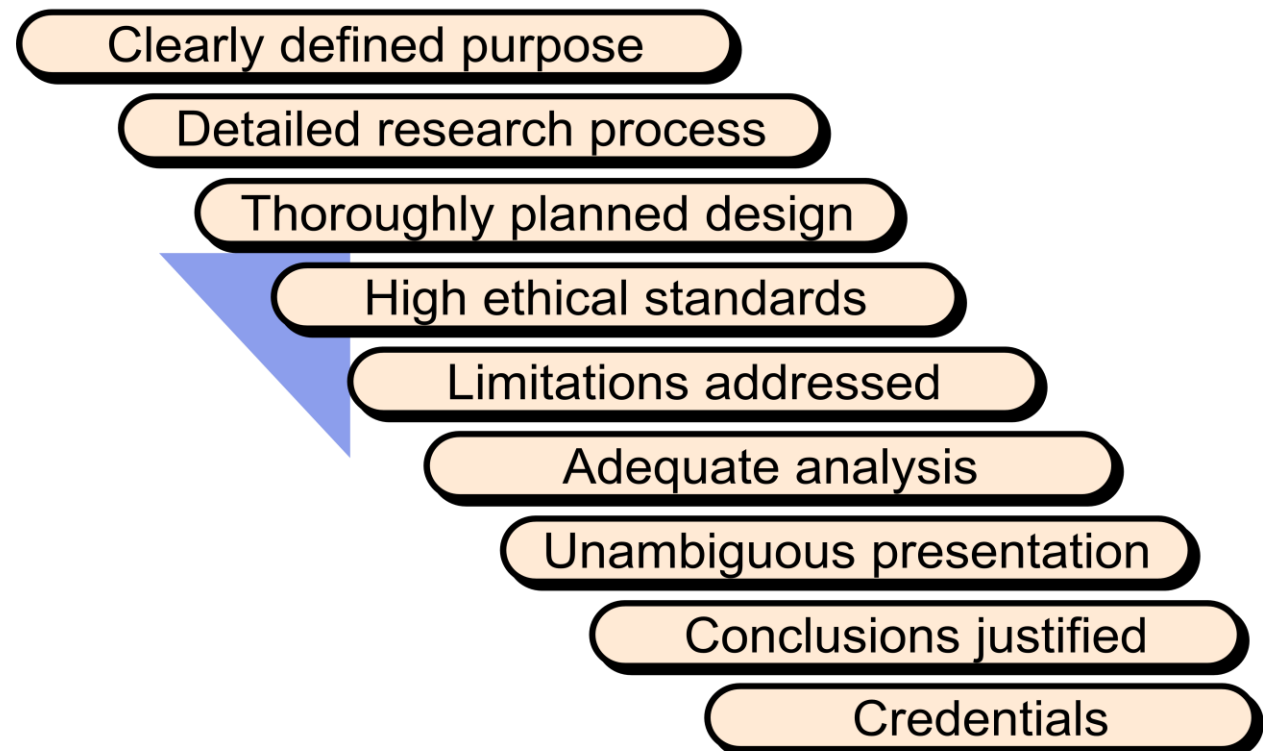
- 3.1 Introduction**
- 3.2 Sampling Design**
- 3.3 Company profile**
- 3.4 Sampling Criteria**
- 3.5 Collection of Data**
- 3.6 Primary Data**
- 3.7 Secondary Data**
- 3.8 Processing of the Data**
- 3.9 Reliability of the questionnaire**
 - 3.9.1 Reliability of the questionnaire for HR and QA Managers**
 - 3.9.2 Reliability of the questionnaire for Employees of the various departments**
- 3.10 Statistical Methods used to test the Hypothesis**
- 3.11 Mapping of research objectives with the questionnaire**
 - 3.11.1 Questionnaire 1- for HR & QA Managers and employees**
 - 3.11.2 Questionnaire 2 – for Employees of the various departments.**
 - 3.11.3 Questionnaire 3- for ISO Consultant**

RESEARCH METHODOLOGY

3.1 Introduction

Research can be defined to be search for knowledge or as systematic investigation, with an open mind, to establish novel facts, solve new or existing problems, prove new ideas, or develop new theories, usually using scientific methods. Research is the systematic process of collecting and analyzing information to increase the understanding of the research problem under study. It is the responsibility of the researcher to contribute to the understanding of the research problem and to communicate that understanding to others. It is organized; structured and purposeful investigation aimed at discovering, interpreting and revising human knowledge, on different aspects of the world by someone first hand. The setting may vary from natural, real world to highly constrained and carefully controlled laboratory environment. The more information we have, the closer we get of making our own decisions. **Research is the result of advancing knowledge created in the past.**

Characteristics of good research

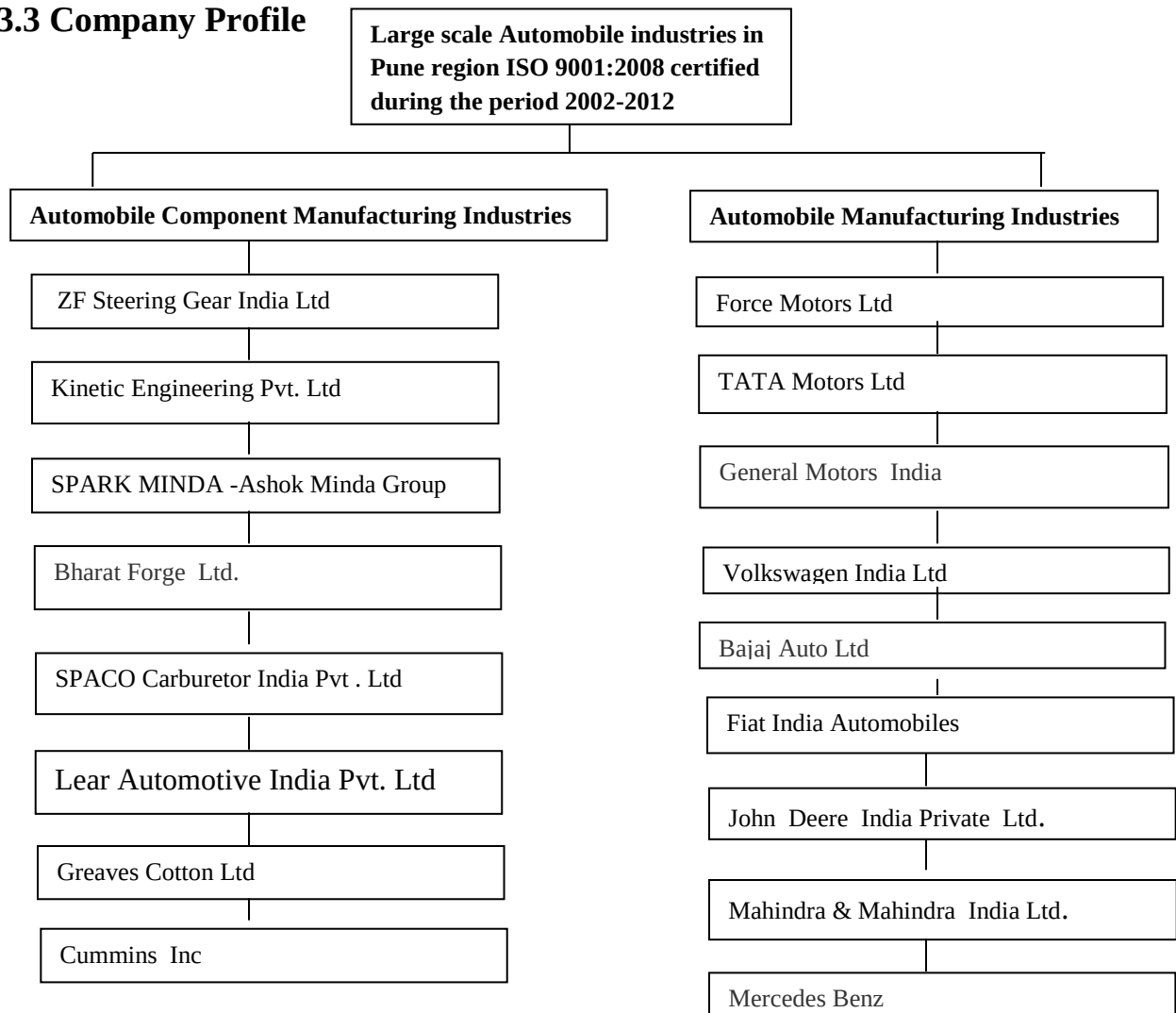


The aim of this research was to study the impact and effectiveness of ISO 9001:2008 certification on selected HR practices in large scale automobile industries in Pune region; that are certified during the period 2002-2012. The selected HR practices are Recruitment & Selection, Training & Development, and Organization Development. Also the objective of the research was to find out the benefits received by the company and the employees after implementation of ISO 9001:2008 certification. Researcher feels that there is positive impact of ISO Certification on HR practices especially in large scale automotive industries in Pune region.

3.2 Sampling Design

The survey was conducted on the basis of random sampling method. For developing sample design, the researcher conducted survey at major 17 large scale automobile industries in Pune region. The data was also collected from ISO consultants through questionnaire.

3.3 Company Profile



1. **ZF Steering Gear India Ltd** (<http://www.zfindia.com/profile/profile.php>) –



ZF Steering Gear India Ltd , is popularly known as **ZF India**. The co. was incorporated in 1981 as a joint venture of ZF Friedrichshafen AG . ZF India is one of the leading co. in manufacturing and supply of **Ball and Nut Integral Hydraulic Power and Worm and Roller Mechanical Steering System**. The co. is located in **Shirur** , twenty eight kilometers away from Pune . Co. has a state of art technology in design and manufacturing various types of power steering and mechanical steering systems.

ZF India has an established business management system with certification for **QMS vide ISO : TS :16949 : 2009 and ISO 14001**. With the help of effective network of around sixty dealers , co. carries out the business in India , Nepal , South Africa , Middle East , Bangladesh etc.

ZF India , strictly follows the norms provided by **ISO : TS : 16949** , in the process of manufacturing functions. Company received the first ISO 9001: 2008 certification in 2002. Co. has effectively adopted the **Lean manufacturing systems**. The employee strength is around 1000 personnel.

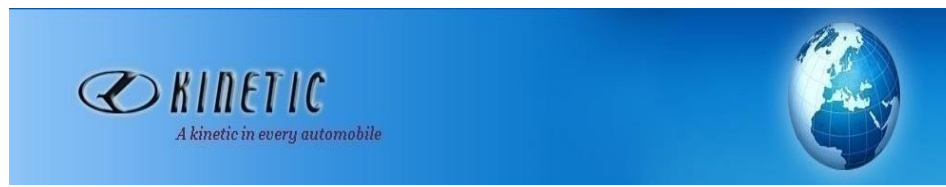
The quality policy of the co. includes –

- Promoting culture of Continuous development
- Promoting and ensuring safe working environment
- Improving skill sets of employees.

Company has received many awards for its excellent performance in the automobile sector e.g. the prestigious award for its Green initiative from Government of Gujarat

TUV Rheinland Germany issued ISO 9001:2008 certification to the co., Consultancy regarding ISO certification was provided by TUV Rheinland Germany. Company required six months to one year for getting the ISO 9001:2008 certification. The version of ISO/TS 16949 is 2009 . Company is in the process of upgrading the version to ISO/TS 16949:2015, which will be implemented in the month of August 2017. The process of up gradation took almost six months. Website - <http://www.zfindia.com>

2. **Kinetic Engineering Pvt. Ltd.** - (<http://www.kineticindia.com/vision.html>)



Firodiya Group of companies, is one of the pioneering group in Automobile industries in India . **Kinetic Engineering Ltd** is one of the flagship co. working under the umbrella of **Firodiya Group. Co.**, started in 1972. Companies philosophy is “**Quality – the only way**”. KEL implements DNC certified ISO/TS 16949:2002 Quality management System. Kinetic Engineering is in the business of manufacturing gear , shafts, axles (i.e. transmission components) , crankshaft , cylinder head , camshafts etc (i.e. engine component) , complete gear box and engine assemblies for auto and non auto products. The employee strength is around 3500 personnel. Company is ISO 9001:2008 and ISO/TS 16969 certified in the year 2010. Company follows the norms provided by ISO/TS 16949 in its day today functioning. Company is located in Chichwad, Pune

Force Motos , Tata Motors , Mahindra , Jaihind Sciaky , Carraro are the few major customers of the company and they are very happy with the KEL’s product and the services.

Company has received the ISO certification from TUV NORD agency. There was no external ISO consultant appointed by the co, employees of the company were involved in the ISO certification process. Company required six months to get the ISO certification. The version is ISO/TS 16949:2009. Company is in the process of implementing the latest version ISO 9001:2015 , is expecting it within next four months.

Website - <http://www.kineticindia.com>

3. **Force Motors Ltd.** – (<http://www.forcemotors.com/home/index>)



It is one of the leading large scale Automobile company in Pune located at Akurdi. Force motors established in 1958. Company is in the business of manufacturing variety of vehicles like it is in the manufacturing of Sports Utility Vehicles (Force One), Agricultural Vehicles (Balwan and Orchard Tractor) , Multi Utility Vehicles (Trax), Small Commercial Vehicles (Traveler) , Off Roaders Vehicles (Force Gurkha). The employee strength of the co. is 8500. It is highly flexible and vertically integrated automotive company which takes care of all types of customer requirements like small commercial vehicles, light commercial vehicles, agricultural vehicles , multi utility vehicles. Company exports all types of vehicles to various countries in Asia , Latin America , Africa, Middle East. Force provides right solution for transport of good as well as passengers . These vehicles are reliable and efficient to satisfy every need. All (https://en.wikipedia.org/wiki/Force_Motors) the manufacturing facilities of Force Motors are certified for ISO 14001 for effectively implementing Environmental Management System, OHSAS 18001 Occupational, Health & Safety certification and TS 16949 for continuous improvement, defect prevention and reduction of waste and variation.

Force Motors has received the ISO 9001:2008 certification in 2008 and strictly follows all norms specified in the ISO process. The agency which has issued the ISO certification to the co. is TUV. The entire process of ISO certification took one year. The version is ISO/TS 16949:2009. Shortly company will initiated the process of shifting to new version of ISO 9001:2015 and expecting it to get within next 6 months.

Website - <http://www.forcemotors.com>

4. **SPARK MINDA** – (<http://www.minda.co.in/minda/Overview.aspx>)



SPARK MINDA functions under the umbrella of **Ashok Minda Group** which was founded in 1958 . In the last fifty years SPARK MINDA has shown major presence in India's Automobile industry. The company is dedicated R&D department which helps to promotes technological innovations in the automobile industry. . For the year 2015-16 the turn over of the co. was around **Rs.3500/- CR.** and employs more than **15,800** employees in India and Overseas.

The Group companies are accredited with **QMS ISO 9001:2008 ISO/TS 16949:2009 and ISO 14001 Certification.** Company has received this certification in the year 2007. The co. is in the business of manufacturing of **Safety , Security and Restrain systems , Driver information and telemetric systems , Interior systems etc.** Also it manufactures various components for four wheeler and two wheeler. In its quality policy , co. claims that it is committed for creating an environment to encourage all the employees and suppliers to prevent any type of defects and strive for excellence. To ensure the consistency in the quality of the products and to validate new products , company has installed International level laboratory. Along with the **Quality Policy** , co, effectively implements the **Safety Policy** and **Environmental Policy.**

Company has received the ISO certification from the agency called TUV. No consultant was appointed to carry out the ISO certification task. Period required for getting the ISO certification was almost one year. Surveillance audit is carried out every year in the co. It has received ISO/TS 16949:2009 certification. Company has planned the version up gradation in the next year i.e. in 2018.

Website - <http://www.minda.co.in>

5. **TATA MOTORS Ltd.** (<http://www.tatamotors.com/about-us/company-profile/>)



TATA Motors is one of the leading global automobile manufacturer, which is in the business of manufacturing of wide range of cars, sport vehicles, defence vehicles, trucks , buses. The major

cars and utility vehicles manufactured by co. consists of Tiago , Gen X Nano , Indica , Bolt , Zest , Indigo , Hexa , Safari Storme , Sumo Gold , Aria and Tigor. The new cars are famous for comfort, connectivity and performance .It is the largest Automobile company which was established in 1945. Sustainability , the spirit of “giving back to the society” and good corporate citizen ship is the philosophy followed by the co. The turnover of the co. is USD 42 Billion and it employs around 60000 employees. Till now it has sold almost more than 9 million vehicles across the world. TATA Motors is a part of TATA Group which was founded by late Jameshedji Tata. To cope up with the changing requirements and taste of customers co. has established strong R & D departments, which are located in India , Italy and Korea. Co. focuses more on to the customer satisfaction. The mission of the company is “ To be passionate in anticipating and providing the best vehicles and the experiences that excite our customers globally”. The plants of Tata Motors are certified for world class manufacturing and quality standers like ISO 9001:2008 and ISO/TS 16949. Company received this certification in 2007. Because of its commitment to quality , co. has received many awards . One of the quality award received by co is Golden peacock award in 2015. Tata Motors has received the ISO certification through the agency called TUV. The version of ISO/TS is 16949:2009. Company is in the process of upgrading the ISO 2015 version and it is expected in next 4 months.

Website - <http://www.tatamotors.com>

6. **General Motors India** - (<http://www.gm.com/company/about-gm.html>)



GM India started its journey in Indian Automobile market in 1996 , under the brand **Chevrolet**. **It is one of the famous brand in automobile sector in India. “Earning customers for life is the foundational promise of General Motors”** . Customer satisfaction is most important for the co. As a result, management is committed to maintain highest quality standards and safety It is in the business of manufacturing electric cars to heavy duty full size trucks. There are ten distinctive automotive brands under the General Motors corporate umbrella: Chevrolet, Buick, GMC, Cadillac, Opel, Vauxhall, Holden, Baojun, Wuling, and Jiefang.

As customer satisfaction and customer well being has a highest priority in General motors , company is driven to maintain highest quality standards. Company never compromises for quality and safety in the company. Company has received / revised its ISO 9001:2008 certification in the year 2011. It follows all the specified norms in ISO 9001:2008 and ISO/TS 16949. The company has around 2000 employee strength in Talegaon factory.

To promote the innovations in the area of automobile industry and to give maximum to the customer , the company supports imagination , creation and inspiration. Freedom is given to the employees to share their ideas , talent , passion , determination and become a part of revolution that is designing , building and selling the best vehicles.

The agency TUV (SUD) has issued the ISO 9001:2008 certificate to General Motors. Almost 8 months required for getting the ISO certification. No consultant was employed by the co. while ISO certification process was going on. Company has already implemented the ISO 9001:2015 in January 2017.

Website: www.gm.com

7. Volkswagen India Ltd -

(http://www.volkswagen.co.in/en/volkswagen_world/heritage.html)



Volkswagen

“ Indian spirit meets German Excellence” . In India company launched SKODA in 2001 . Volkswagen India is a part of Volkswagen AG , which is represented by twelve brands – seven from European countries. Company manufactures total eleven automotive brands , from low cost customer cars to luxury vehicles , like Audi , SKODA, Volkswagen Passenger, Bentley , Bugatti , Lamborghini, Scania , Porsche , SEAT , Volkswagen Commercial vehicles , MAN , and one famous brand of two wheeler i.e. Ducati. The car manufacturing capacity of Chakan plant is almost 200000 vehicles per year. It is the largest investment by a German Company to date in the Indian growing market. Company is ISO 9001:2008 and ISO/TS 16949 certified in the year 2010. Volkswagen permits the people to tour the plant and experience the German technology . Today over 3500 employees work in Pune plant. Company is famous for its quality and the latest technology which it uses to manufacture the cars. The Chakan plant is one of the most modern plant in Volkswagen group.

The agency TUV has issued the ISO certification to the company. It took almost seven to eight months to get the ISO certification the version for which co. is certified is ISO/TS 16949:2009. Company is in the process of upgrading the latest version of ISO 9001:2015 and expecting it in December 2017.

Website - <http://www.volkswagen.co.in>

8. Bajaj Auto Ltd. – (http://www.bajajauto.com/bajaj_corporate.asp)



Bajaj group is amongst the top ten business group in India. Company was established in 1926 i.e. before the independence . Company started its business in manufacturing two wheelers and three wheelers , but at present it has its existence in variety of areas like insurance , home appliances , lighting, travel and finance etc. Bajaj Auto is ranked as world's fourth largest two wheeler and three wheeler manufacturing company and the brand is well known in the world. Integrity , dedication , resourcefulness and determination are the key success factors of the company. Company has received many awards for the quality of vehicles manufactured by the co. Employee strength in Pune plant is almost 10000. Company has received many awards and recognitions for the vehicles manufactured by it. Company has received the ISO 9001:2008 certification and ISO/TS 96949 certification in the year 2009. It follows all the parameters specified in the ISO certification process. Bajaj Auto has total three plants two at Valunj and Chakan in Maharashtra , one at Pnat Nagar , Utaranchal.

Name of the agency who has issued ISO 9001:2008 certification to the co. is **Bureau Veritas** . No consultant was appointed to carry out the process of ISO certification. It took three months to get the ISO Certification. Company has already implemented the latest version ISO 9001: 2015 in the month of January 2017.

Website - <http://www.bajajauto.com>

9. Mercedes Benz (<https://en.wikipedia.org/wiki/Mercedes-Benz>) –



Mercedes-Benz

The tag line of the co. is “ **Luxury that goes beyond the vehicle** “. Mercedes Benz is a global automobile manufacturer . It is a division of Daimler AG , a German company. The renowned brand, Mercedes Benz is known for, luxury buses , cars , trucks and coaches . The brand is famous for its quality and durability. Company offers full range of passenger cars , heavy weight and light weight commercial vehicles. The vehicles are manufactured at various plants in the world. Company is ISO 9001:2008 and ISO/TS 16949 certified in the year 2008. First time in automobile world , Mercedes Benz introduced Air bags and seat belts to the four wheeler vehicles.

The **TUV** agency has issued the ISO certificate to the company. Period required for the certification was almost six months. The current version which is implemented in the co. is ISO/TS 16949:2009. It is in the process of up gradation of the latest version i.e. 9001:2015 , and it is expected to implement it by this year end i.e. December 2017.

Website - www.mercedes-benz.com

10. Bharat Forge Ltd. – (<http://bharatforge.com/company/about-us.html>)



Bharat Forge Ltd. is the Pune based , worlds largest forging manufacturing company which is the part of Kalyani Group. Company was founded in 1961 by **Dr.N.A. Kalyani**. BFL is a technology driven global company , serving various sectors like power , automotive , oil & gas , constructions and manufacturing , aerospace , rail , marine . Company employees almost 10000 global workforce. BFL is India’s largest manufacturer and exporter of automotive components and leading manufacturer of chassis in the world. The company aims at “ Expanding into new horizons “. It will give a completely new growth perspective to the company. The vision of the

company is “We’re Building India’s Economic Backbone, Strengthening National Capabilities and Ensuring a Bigger Global Imprint–For Ourselves And Our Country”. BFL is certified with ISO 9001:2008 and ISO/TS 16949:2009 and follows all quality norms specified in the standard. Bharat Forge is ISO certified in the year 2008. Company has received many prestigious awards , to recognize its contribution towards customers, technology , society etc.

UL DQS Inc. has issued the ISO certificate to the company. ISO consultant was appointed by the company to complete the certification process smoothly. Six months were required to get the ISO certification to the co. The co. is ISO/TS 16949:2009 certified. It has started working on upgrading the certification to the latest version i.e. ISO/TS 16949:2015 , and is expecting to get it within next four months.

Website : <http://bharatforge.com>

11. Fiat India Automobiles – (<https://www.fiat.com/where-we-are>)



Fiat brand in India , which was earlier represented through a joint venture company named Fiat India Automobiles Pvt. Ltd. , (later on name changed to Fiat India Automobiles Ltd.) was founded in 1997. FIAT and Tata Motors were the two partners came together to manufacture the cars of the both brands at a Ranjjangaon plant. The major car brands of are Fiat Grande Punto , Fiat Palio , Fiat Avventura , Fiat Linea, TATA vista and Tata Manza. Even as on today Tata Fiat JV plant operates under the name of FIAL as a independent entity. Company is ISO 9001:2008 and ISO/TS 16949 certified in the year 2007. At present co. employees 2600 employees.

The company has received the ISO certification through TUV (SUD) agency . No ISO consultant was deputed by the co. It required almost six months for completing the process of ISO certification. Co. has ISO/TS 16949: 2009 version. It has started the process of upgrading to the next version i.e. 9001:2015, and is expecting to get it by November 2017.

Website : <https://www.fiat.com>

12. **John Deere India Private Ltd. -**

(https://www.deere.co.in/en_IN/our_company/about_us/history/history.page)



The tag line of the company is **“We are committed to the people who are connected to the Land”**. The company is linked with the farmers , landowners , launchers , builders and loggers. John Deere India Pvt Ltd. Is a subsidiary of Deere & Company from USA. The company was established in 1999 at Sanaswadi, as a green field project. Company started working in association with Larson & Toubro [One of the famous engineering company in India] , as a 50:50 joint venture. The core values of the company like integrity , commitment , quality and innovation. At present company has a wide port folio in India . Company is in the business of Tractor manufacturing , grain combine harvester, drip irrigation factory , Engineering & IT services, construction & forestry equipments , financial solutions and electronic solutions. Company exports their agricultural products to 75 countries worldwide. Company is ISO 9001:2008 certified in the year 2010. To recognize the performance of the company in agricultural sector , for consecutive twelve years company has received “Export Excellence Award” from Engineering Export Promotional Council . Company across the India employees more than 6000 employees.

Company has received the ISO certificate from TUV agency. Company appointed the ISO consultant , to complete the certification process systematically. Company required almost nine months to get the ISO certificate. Co. is ISO/TS 16949:2009 certified. It has initiated the process of up gradation of ISO/TS 9001:2015 version.

Website - <https://www.deere.co.in>

13. **Mahindra & Mahindra India Ltd.** – (<http://www.mahindra.com/resources/pdf/about-us/Mahindra-Fact-Sheet-Mar-2017.pdf>)



It is one of the big brand in India. Company started its journey in 1945 by entering in to Steel industry. In 1947 , company entered into manufacturing of jeep named “Willy” . It is leader in tractor manufacturing and utility vehicle space in India. Today the turnover of the company is US \$ 17.8 billion. Company is famous for its rugged and reliable automobiles. Company has shown its existence in diversified areas like financial services , IT , hospitality , components , aerospace and logistics. Company employees more than 200000 employees around the globe. Company aims at “ To make Mahindra , one of the 50 admired global brand by 2021” . A brand that empowers people to rise to their dreams and achieve their full potential. Company is ISO 9001:2008 and ISO/TS 16949 certified . It is certified in the year 2011. Company has a reputation of maintaining the quality. So it follows all the parameters specified in ISO process. Company has received many prestigious awards like – the only tractor co. in the world , that has received the Deming Prize and the Japan Quality Medal.

The agency called Intertek , helped the co. to get the ISO certification . No consultant was appointed by the co . to carry out the process of ISO certification. At present co. is ISO/TS 1694: 2002 certified. It has planed the up gradation process to ISO/TS 16949:2015 in the next year.

Website : www.mahindra.com

14. **SPACO Carburetor India Pvt . Ltd.** – (<http://www.spaco.co.in/about-us.php#Introduction>)



SPACO Carburetors Pvt Ltd was established in 1971 , and is in the business of manufacturing of carburetors for two wheelers. The company is recognized as a pioneer of manufacturing of carburetors of two and three wheeler in India. Company has a technical tie ups with renowned companies from Europe and Japan. The carburetors manufactured by these companies are used in two wheelers and three wheelers like scooter , moped, motor cycles etc. Company is also in the business of manufacturing of carburetors for stationary engines. SPACO follows a strict quality norms while manufacturing carburetors. Company is committed to quality and excellence in the product manufacturing. Companies both the plants , i.e. Chinchwad plant and Madhwas plant from Gujrat are certified with ISO 9001:2008 and ISO/TS 16949 in the year 2003. Customer satisfaction and delight is the goal of the co. SPACO Carburetor Pvt. Ltd. is the recipient of many awards for its contribution in the automobile industry.

Company has received ISO certification from the agency called TUV. No consultant was appointed in the process of ISO certification. It took almost seven to eight months to get the ISO certification. The version which company is certified is ISO/TS 16949:2009. Company has started the process of up gradation to next version i.e. ISO/TS 16949:2015 and is expected to get it in the month of November 2017.

Website : <http://www.spaco.co.in>

15. **Lear Automotive India Pvt. Ltd.** - (<http://lear.com/Site/Company/History.aspx>)



Company is a leading supplier of automotive seating and electrical systems worldwide . Company is ranked in Fortune 500 companies for its world class product designed , engineered and manufactured by its skilled and talented employees. The ranking was #154. The company has its plants in 35 countries, almost at 235 locations with global employee strength of 1,35,000. The success of the company is the result of commitment , strong relationship with employees , customers and suppliers. Company is ISO 9001:2008 and ISO /TS 16949 certified in the year 2008 and critically follows all the norms of ISO processes.

Name of the agency who has issued ISO 9001:2008 certification to co . – **Intertek**. No consultant was appointed by the co. Certification process took almost 8 to 9 months. At

present company is ISO/TS 16949:2009 certified and is in the process of shifting to the latest version ISO/TS 16949:2015 .

Website : <http://lear.com>

16. **Greaves Cotton Ltd.-** (<http://www.greavescotton.com/aboutus/mission.aspx>)



It is India's one of the leading and diversified Engineering company , established in 1859. Company is in the business of manufacturing of diesel/petrol engines , Gensets , Pump sets , and construction equipments. The engines are highly fuel efficient, light weight and are used in three wheeler and four wheeler. Company is ISO 9001:2008 and ISO/TS 16949 certified in the year 2007.

Name of the agency who has issued ISO 9001:2008 certification to the co. is **Bureau Veritas** . Company appointed **Ms TechnoSysCon, Chinchwad**, as a ISO consultant to help in carrying out the ISO certification process. The present ISO version is ISO 9001 & 14001:2015. Company is already in the process of implementing the latest version i.e. ISO/TS 16049:2015.

Website : <http://www.greavescotton.com>

17. **Cummins Inc** – (<https://www.cummins.com/company/overview>)



Cummins in India is recognized as a power leader. It is a group of complementary business units which design , manufacture , distribute and service engines and related technologies like fuel system , air handling , emission , filtration etc. Company's performance is very high because of its core values like customer focus, integrity and skill set of the employees. Cummins in India is

a group of seven legal entities across 200 locations in the country. Its combined turnover is around Rs.10,880 crores in 2016 and total employee strength is around 54600.

Company has received the iso Certification in the year 2012. And the management is very proud to state that they follows all the norms specified in the ISO/TS 16949 standard.

Cummins India is a leading manufacturer of diesel and natural gas engines. It comprises of three units engine, power systems and distribution. Company ranked 154 in the ranking of Fortune 500 companies in 2015.

The agency TUV has helped the co. in getting the ISO certification. No consultant was appointed by the company. It took almost 8 to 9 months to get the ISO certification . The current version for which the co. is certified , is ISO/TS 16949:2009. Company will soon start the process of up gradation to the next version. And expecting it to get in the next year.

Website - <https://www.cummins.com>

3.4 Sampling Criteria

The sampling criteria included the following

- The organization should be from automobile manufacturing or automobile component manufacturing domain.
- The operations in organization must use power machines or equipment in its operation.
- The organization must be located in or be in close proximity to the Pune region.
- The company must effectively implement labor wages act and Factories Act 1948 .

Sampling Procedure

The probability sampling technique involved in this study is a two stage random sampling method. Thus the method is employed to select respondents in a random fashion according to the following steps: first researcher considered all the automobile manufacturing / component manufacturing industries at first stage of sampling and then researcher has chosen large scale automobile manufacturing companies , which are ISO 9001:2008 certified during the period 2002-2012 , in random fashion (where the total number of companies in study is 17).

Sampling Frame

The study will be conducted in the Pune region of the state keeping in mind the time and cost involved in collecting data. Therefore, the sampling frame was developed from two sources:

- Directory of Mahratta Chamber of Commerce and Industries.
- Directory of Maharashtra Industrial Development Corporation.

Sample Extent

The Industrial Scene of Pune- The various companies in The Pune region are engaged in manufacturing auto components, locomotives, agro-based products, electronic consumer durables, pharmaceuticals, chemicals and IT software among others. Companies like Philips India, Mahindra and Mahindra, Mercedes Benz India Ltd., Alfa Laval, SKF Bearing etc. are some of the large-scale companies located in and around Pune.

Pune region is blessed with major national / international automobile industries in and around it. Researcher has covered two wheeler , four wheeler manufacturing automobile industries as well as automobile components / parts manufacturing industries in Pune region. According to the details provided by Maratha Chamber Of Commerce , during the period 2002- 2012 , there were 17 large scale automobile industries which were ISO certified, Researcher has covered all those industries for data collection. Out of total 17 automobile industries , 9 are automobile manufacturing industries where as 8 are automobile components / parts manufacturing industries.

According to the definition given by International Research Institute for Manufacturing Industrial Product, the term large scale automobile industries refers to the, industry whose turn over is ≥ 500 Cr. and < 2000 Cr.

Sample Duration

The time taken to complete the data for research of all the required sample elements (i.e. respondents) took almost 10 months' time.

3.5 Collection of Data

Total seventeen large scale automobile industries from Pune region were selected for the data collection. These automobile industries were ISO certified during the period 2002-2012. There were three questionnaires prepared for collection of data. One was prepared for the employees from HR department and Quality Assurance department, who experienced the pre and post ISO certification era. Second questionnaire was prepared for the senior employees from the various departments, who witnessed the pre and post ISO certification process in the organization. The third questionnaire was prepared to take the feedback about the impact and effectiveness of ISO certification on HR practices, from ISO consultants.

Through the analysis of this questionnaire researcher could reach to the fact that ISO 9001:2008 certification has a positive impact on selected HR practices in the organization, which helps to the employees as well as the co. It has been observed by the researcher that , on few parameters of selected HR practices , there is extremely improvement whereas on few parameters , it is moderately improvement. Also there are few factors which show non significant impact. Over and above responses to questionnaire, interviews of ISO consultant and HR managers were also conducted to collect data.

3.6 Primary Data

In order to understand the facts and figures, researcher prepared a pilot questionnaire. The questionnaire was given to the respondents from four companies. All three questionnaires were distributed in the company to the eligible respondents. Almost 54 respondents from these four companies responded to the questionnaires. These respondents were asked to choose the most appropriate choice for the questions asked in the questionnaire. Based on the pilot survey and the comments from the respondents about the questionnaire a normal distribution curve was observed. After detailed analysis and repeated discussions with the guide and the experts, the defects in the questionnaire were removed and gaps were covered to include all the aspects stated in the objectives and the hypothesis.

In addition to the information through questionnaire, interviews of few respondents, especially HR heads of the company were also conducted. Interview is the direct and most effective way of collecting the data. It is the form of oral- verbal stimuli and response. Few senior employees working in various departments were also interviewed to get the opinions related to satisfaction,

motivation, co operation from top management, human resource practices, organizational culture, relationship and response from the seniors. The researcher collected minute details of all the aspects of the research topic through informal interaction and observation.

In the present study, researcher used various types of observations – like participative and non participative observations. With the help of this, the researcher collected the information for its validation and objectivity.

3.7 Secondary Data -

Information related to the ISO certification, HR practices was collected from various books available in the libraries. Relevant official literature survey was carried out in various libraries, news papers, magazines, journals – published weekly, fortnightly or monthly and same were considered during analysis. Various sites were surfed for getting the information related to research topic, company profiles of the respondent companies etc.

3.8 Processing of the Data

The main objective of the present research was to study the impact and the effectiveness of ISO certification on selected HR practices in large scale automobile industries , in Pune region , during the period 2002- 2012. Thus, collected data was processed with the help of computer and is presented in the form of tables, charts, graphs, bar charts, pie charts. For the analysis of data standard statistical tools were used. Finally inferences, conclusions and suggestions, recommendations were drawn which are placed in the appropriate places in the respective chapters. Findings are presented in the fourth chapter. Bibliography is given at the end of the report.

3.9 Reliability of the questionnaire –

After collecting the data of almost 55 respondents, the researcher has carried out the pilot analysis. Then the reliability of the both questionnaire was checked. The observation shows that cronbach alpha i.e. reliability of both the questionnaire is good.

3.9.1 Reliability of the questionnaire for HR and QA Managers:

The questionnaire includes 5 sections & 26 questions (103 sub-questions) in all related to study.

The reliability of the questionnaire using 26 questions along with sub-questions related to study is calculated as follows.

The reliability of the questionnaire i.e. the Cronbach alpha is given as

Reliability Statistics	
Cronbach's Alpha	N of Items
.770	103

Hence the cronbach alpha that is reliability of the questionnaire is good.

3.9.2 Reliability of the questionnaire for Employees of the various departments

The questionnaire includes 9 questions (56 sub-questions) in all related to study.

The reliability of the questionnaire using 9 questions along with sub-questions related to study is calculated as follows.

The reliability of the questionnaire i.e. the Cronbach alpha is given as

Reliability Statistics	
Cronbach's Alpha	N of Items
.821	56

Hence the cronbach alpha that is reliability of the questionnaire is good.

3. 10 Statistical Methods Used To Test Hypotheses

To understand the impact and effectiveness of ISO certification on selected HR practices in automobile industries **Chi-Square Tests , One way Anova, Spearman Rank Co-relation,** Statistical tests are used for data analysis , **Cronbach's Alpha test used for checking the reliability of the questionnaire .**

3.11 Mapping of research objectives with the questionnaire

3.11.1 Questionnaire 1- for HR & QA Managers and employees

1. **Objective – 1** - To study the process of ISO 9001:2008 in large scale automobile industries, related to selected HR practices.

B| Training & Development aspect of HRM

Q1. Were there following major HR issues in your organization prior to ISO Certification?

Sr. No.	HR Practices	Yes	No
1.	Recruitment & Selection		
2.	Training & Development		
3.	Organizational Development interventions		

(C) Recruitment & Selection Aspect Of HRM

Q.1. Please tick the source/s of recruitment in the organization before ISO certification and after ISO certification?

Sr. No.	Source of Recruitment	Before ISO	After ISO
1	Through Placement Agency		
2	Through Online / web portal		
3	Through advertisement		
4	Employee referral		
5	Any other , please specify		

(D) OD INTERVENTIONS

Q.1. Enlist OD Interventions in place before to ISO Certification and after ISO Certification -

Sr. No.	OD Interventions	Before ISO	After ISO
1.	Performance Management System		
2.	Training & Development		
3.	Career Planning & Succession planning		

4.	Industrial Safety		
5.	Housekeeping Initiative		

2. Objective-2. - To study the process of ISO 9001:2008 in large scale automobile industries, with respect to Training and development practice of HRM.

Q.2. Whether refresher courses were conducted for new version of ISO?

1. Yes ☐ 2. No ☐

Q3. Tick the Training programs conducted by your co related to ISO certification your organization.

- | | |
|---|--------------------------|
| 1. Training program on ISO QMS Awareness | ☐ |
| 2. Training program on ISO Documentation | ☐ |
| 3. Training program on ISO Process Mapping | ☐ |
| 4. Training program on ISO Internal Auditor Training | ☐ |
| 5. Training program on Disciplined Problem Solving | ☐ |
| 6. Training program on Corrective & Preventive Action | ☐ |
| 7. Training program on Continual Improvement | ☐ |
| 8. All of the above | ☐ |

Q.4. Furnish the following details regarding ISO training programs provided to employees.

Sr No	No Of Employees	Feedback was taken		Course Material was provided		Course Material developed by	
		Yes 1	No 2	Yes 1	No 2	In House 1	ISO Consultant 2
1.	All employees of the co						
2.	Selected * Employees						

* If selected, then what were the criteria?

Q. 5. Was there any training need identification done for ISO Training program by your co.?

1. Yes ☐ 2. No ☐

3. Objective - 3 - To study the process of ISO 9001:2008 in large scale automobile industries, with respect to Recruitment and Selection practice of HRM.

(C) Recruitment & Selection Aspect Of HRM

Q.1. Please tick the source/s of recruitment in the organization before ISO certification and after ISO certification?

Sr. No.	Source of Recruitment	Before ISO	After ISO
1	Through Placement Agency		
2	Through Online / web portal		
3	Through advertisement		
4	Employee referral		
5	Any other , please specify		

4. Objective - 4 - To study the process of ISO 9001:2008 in large scale automobile industries, with respect to Organizational Development practice of HRM

(D) OD INTERVENTIONS

Q.1. Enlist OD Interventions in place before to ISO Certification and after ISO Certification –

Sr. No.	OD Interventions	Before ISO	After ISO
1.	Performance Management System		
2.	Training & Development		
3.	Career Planning & Succession planning		
4.	Industrial Safety		
5.	Housekeeping Initiative		

5. Objective- 5. To study the impact of changes in the Training and Development due to ISO 9001: 2008 certifications.

Q.6. Please express your responses towards the result of ISO Certification training provided to employees

[1- Not At All Improved (0%), 2- Slightly Improved (1% - 25%), 3- Somewhat improved (26% - 50%), 4- Moderately Improved (51% - 75%), 5- Extremely Improved (76% - 100%)]

Sr. No	The training provided resulted in	1 (0%)	2 (1% - 25%)	3 (26% - 50%)	4 (51% - 5%)	5 (76% - 100%)
1.	Increased awareness about ISO QMS					
2.	Improved performance of dept. during internal/external audits					
3.	Effective audits					
4.	System discipline					
5.	Proper documentation, record keeping					
6.	Consistent Product Quality					
7.	Improved housekeeping					
8.	Increase in Productivity level					

Q7. Has ISO certification improved Training & Development process in your organization, in terms of -

[1- Not At All Improved (0%), 2- Slightly Improved (1% - 25%), 3- Somewhat improved (26% - 50%), 4- Moderately Improved (51% - 75%), 5- Extremely Improved (76% - 100%)]

Sr. No.	Terms	1 (0%)	2 (1% - 25%)	3 (26% - 50%)	4 (51% - 75%)	5 (76% - 100%)
1.	Approach					
2.	Seriousness towards training					
3.	Periodicity					
4.	Enhancement in On-job-performance					

Q.8. Do you assess the impact/ effectiveness of ISO training program provided to employees in the organization?

1. Yes ☐ 2. No ☐

Q. 9. Please tick the responses for measuring the effectiveness of ISO training program in your co.

[1- Not At All Improved (0%), 2- Slightly Improved (1% - 25%), 3- Somewhat improved (26% - 50%), 4- Moderately Improved (51% - 75%), 5- Extremely Improved (76% - 100%)]

Sr. No.	Terms	1 (0%)	2 (1% - 25%)	3 (26% - 50%)	4 (51% - 75%)	5 (76% - 100%)
1	Increase in team work					
2	Increase in the morale of the employees					
3	Increase in productivity					
4	Increase in quality of work					
5	Reduction in errors at work place					
6	Reduction in conflicts					
7	Reduction in Complaints					
8	All of the above					

6. Objective - 6 - To study the impact of changes in the Recruitment and Selection due to ISO 9001: 2008 certifications.

(C) Recruitment & Selection Aspect Of HRM

Q 4. If yes, then in which areas of recruitment & selection there are improvement –

[1- Not At All Improved (0%), 2- Slightly Improved (1% - 25%), 3- Somewhat improved (26% - 50%), 4- Moderately Improved (51% - 75%), 5- Extremely Improved (76% - 100%)]

Sr. No.	Areas of improvement	1 (0%)	2 (1% - 25%)	3 (26% - 50%)	4 (51% - 75%)	5 (76% - 100%)
1.	Planning the recruitment & selection process					
2.	Job analysis and determining the required capabilities					
3.	Selection process: Interviewing and additional assessment					
4.	Reference checking					
5.	Making a selection decision					
6.	Induction / orientation					
7.	Determine job outcomes or Key Result Area (KRAs)					
8.	Assessing person organization fit					
9.	Developing/revisiting position descriptions					
10.	Attrition rate has gone down					
11.	Reduction in Recruitment cost and cycle time					
12.	Lead time or hiring cycle					
13.	Quality of hire					
14.	New hire failure rate					
15.	Cost per hire					
16.	Offer acceptance rate					
17.	Interviews per job offer					
18.	Turnover of the new hire					
19.	Making Recruitment and Selection as smooth function					

7. Objective - 7 - To study the impact of changes in the Organizational Development due to ISO 9001: 2008 certifications.

(D) OD INTERVENTIONS

Q.2. Has ISO certification improved OD Interventions process in your organization, in terms of –

[1- Not At All Improved (0%), 2- Slightly Improved (1% - 25%), 3- Somewhat improved (26% - 50%), 4- Moderately Improved (51% - 75%), 5- Extremely Improved (76% - 100%)]

Sr. No.	OD Intervention	1 (0%)	2 (1% - 25%)	3 (26% - 50%)	4 (51% - 75%)	5 (76% - 100%)
1.	Performance Management System [PMS]					
2.	Training & Development					
3.	Career Planning & Succession planning					
4.	Industrial Safety					
5.	Housekeeping Initiative					

Q.3. ISO QMS Implementation has brought following changes in Organizational Development -

[1- Not At All Improved (0%), 2- Slightly Improved (1% - 25%), 3- Somewhat improved (26% - 50%), 4- Moderately Improved (51% - 75%), 5- Extremely Improved (76% - 100%)]

Sr. No.	Changes in Organizational Development	1 (0%)	2 (1% - 25%)	3 (26% - 50%)	4 (51% - 75%)	5 (76% - 100%)
1.	System Discipline improved					
2.	HR Processes put in place					
3.	Customer satisfaction					
4.	Enhancement in effectiveness of HR function in the organization					
5.	Improved productivity					
6.	Improved efficiency					
7.	Improved quality					
8.	Employee satisfaction					
9.	Reduction in errors					
10.	Increase in organizational commitment					

(E) OVERALL

Q .1. Does Recruitment and Selection, Training &Development, and Organizational Development have improved functioning of the organization after ISO QMS implementation.

Sr. No.	HR Processes	1 (0%)	2 (1% - 25%)	3 (26% - 50%)	4 (51% - 75%)	5 (76% - 100%)
1.	Recruitment and Selection					
2.	Training & Development					
3.	Organizational Development					

8. Objective 8 - To study the various benefits received by the employees due to the implementation of ISO 9001:2008.

Q.2. How the ISO certification has benefited to the employees?

[1- Not At All Improved (0%), 2- Slightly Improved (1% - 25%), 3- Somewhat improved (26% - 50%), 4- Moderately Improved (51% - 75%), 5- Extremely Improved (76% - 100%)]

Srno	HR Practices	1 (0%)	2 (1% - 25%)	3 (26% - 50%)	4 (51% - 75%)	5 (76% - 100%)
1	Enhancement in On-job-performance					
2	Reduced attrition rate					
3	Improvement in the competency of the employees					
4	Increase in the morale of the employees					
5	Increased motivation of the employees					
6	Increase in quality of work					
7	Reduction in errors at work place					
8	Reduction in conflicts					
9	Reduction in Complaints					
10	Enhancement in effectiveness of HR function in the organization					

9. Objectives - 9 - To study the benefits received by the automobile industry itself, due to the implementation of ISO 9001:2008

Q.3. How the ISO certification has benefited to the company?

[1- Not At All Improved (0%), 2- Slightly Improved (1% - 25%), 3- Somewhat improved (26% - 50%), 4- Moderately Improved (51% - 75%), 5- Extremely Improved (76% - 100%)]

Sr No	HR Practices	1 (0%)	2 (1% - 25%)	3 (26% - 50%)	4 (51% - 75%)	5 (76% - 100%)
1	System Discipline improved					
2	HR Processes put in place					
3	Customer satisfaction					
4	Enhancement in effectiveness of HR function in the organization					
5	Improved productivity					
6	Improved efficiency					
7	Improved quality					
8	Employee satisfaction					
9	Reduction in errors					
10	Increase in organizational commitment					

10 Objective - 10 - To study the evaluation of impact of ISO 9001:2008 is associated with the tenure of person served with the organization.

Q. 1 How long you are associated with this organization?

1. < 3 years ☐
2. 3 to 6 years ☐
3. 6 to 9 years ☐
4. 9 to 12 years ☐
5. More than 12 years. ☐

3.11.2 Questionnaire 2 – for Employees of the various the departments.

1. Objective – 1 To study the process of ISO 9001:2008 in large scale automobile industries, related to selected HR practices.

Q. 7. From the following, in which areas you think there is improvement?

[1- Not At All Improved (0%), 2- Slightly Improved (1% - 25%), 3- Somewhat improved (26% - 50%), 4- Moderately Improved (51% - 75%), 5- Extremely Improved (76% - 100%)]

Srno	HR Practices	Pre ISO					Post ISO				
		1	2	3	4	5	1	2	3	4	5
1	Planning of the recruitment & selection process										
2	Selection process: Interviewing and additional assessment										
3	Making a selection decision										
4	Induction / orientation										
5	Attrition rate has gone down										
6	Offer acceptance rate										
7	Developing/revising position descriptions										
8	Interviews per job offer										
9	Making Recruitment and Selection as smooth function										
10	Identification of Training needs (TD1)										
11	Design of Training Programme										
12	Implementation Of Training Programme										

13	Evaluation of Training Programme										
14	Increase in team work										
15	Increase in the morale of the employees										
16	Increase in productivity										
17	Increase in quality of work										
18	Reduction in errors at work place										
19	Reduction in conflicts										
20	Reduction in Complaints										
21	Career Planning										
22	Performance Management System										
23	Succession Planning										
24	Training and development										
25	Industrial Safety										
26	Housekeeping Initiative										

5. Objective 5 To study the impact of changes in the Training and Development due to ISO 9001: 2008 certifications.

6. Objective 6 To study the impact of changes in the Recruitment and Selection due to ISO 9001: 2008 certifications.

7. Objective 7 To study the impact of changes in the Organizational Development due to ISO 9001: 2008 certifications.

Q .6. In which HR practices do you think improvement is shown?

[1- Not At All Improved (0%), 2- Slightly Improved (1% - 25%), 3- Somewhat improved (26% - 50%), 4- Moderately Improved (51% - 75%), 5- Extremely Improved (76% - 100%)]

Sr. No.	HR Practices	1 (0%)	2 (1% - 25%)	3 (26% - 50%)	4 (51% - 75%)	5 (76% - 100%)
1	Recruitment & Selection					
2	Training and Development					
3	Organizational Development					
4	Performance Management					
5	Payroll and Compensation					
6	Industrial Relations					

Q. 7. From the following, in which areas you think there is improvement?

[1- Not At All Improved (0%), 2- Slightly Improved (1% - 25%), 3- Somewhat improved (26% - 50%), 4- Moderately Improved (51% - 75%), 5- Extremely Improved (76% - 100%)]

Srno	HR Practices	Pre ISO					Post ISO				
		1	2	3	4	5	1	2	3	4	5
1	Planning the recruitment & selection process										
2	Selection process: Interviewing and additional assessment										
3	Making a selection decision										
4	Induction / orientation										
5	Attrition rate has gone down										
6	Offer acceptance rate										
7	Developing/revising position										

	descriptions										
8	Interviews per job offer										
9	Making Recruitment and Selection as smooth function										
10	Identification of Training needs (TD1)										
11	Design of Training Programme										
12	Implementation Of Training Programme										
13	Evaluation of Training Programme										
14	Increase in team work										
15	Increase in the morale of the employees										
16	Increase in productivity										
17	Increase in quality of work										
18	Reduction in errors at work place										
19	Reduction in conflicts										
20	Reduction in Complaints										
21	Career Planning										
22	Performance Management System										
23	Succession Planning										
24	Training and development										
25	Industrial Safety										
26	Housekeeping Initiative										

8. Objective - 8. To study the various benefits received by the employees due to the implementation of ISO 9001:2008.

Q.8. How the ISO certification has benefited to the employees?

[1- Not At All Improved (0%), 2- Slightly Improved (1% - 25%), 3- Somewhat improved (26% - 50%), 4- Moderately Improved (51% - 75%), 5- Extremely Improved (76% - 100%)]

Srno	HR Practices	1 (0%)	2 (1% - 25%)	3 (26% - 50%)	4 (51% - 75%)	5 (76% - 100%)
1	Enhancement in On-job-performance					
2	Reduced attrition rate					
3	Improvement in the competency of the employees					
4	Increase in the morale of the employees					
5	Increased motivation of the employees					
6	Increase in quality of work					
7	Reduction in errors at work place					
8	Reduction in conflicts					
9	Reduction in Complaints					
10	Enhancement in effectiveness of HR function in the organization					

9.Objective - 9 To study the benefits received by the automobile industry itself, due to the implementation of ISO 9001:2008.

Q.9. How the ISO certification has benefited to the company?

[1- Not At All Improved (0%), 2- Slightly Improved (1% - 25%), 3- Somewhat improved (26% - 50%), 4- Moderately Improved (51% - 75%), 5- Extremely Improved (76% - 100%)]

Sr. No	HR Practices	1 (0%)	2 (1% - 25%)	3 (26% - 50%)	4 (51% - 75%)	5 (76% - 100%)
1	System Discipline improved					
2	HR Processes put in place					
3	Customer satisfaction					
4	Enhancement in effectiveness of HR function in the organization					
5	Improved productivity					
6	Improved efficiency					
7	Improved quality					
8	Employee satisfaction					
9	Reduction in errors					
10	Increase in organizational commitment					

Mapping of research objectives with the questionnaire

3.11.3 Questionnaire 3- for ISO Consultant

1. Objective – 1 To study the process of ISO 9001:2008 in large scale automobile industries, related to selected HR practices.

Q17. Your comments on impact of ISO certification as QMS on selected HR (i.e T &D , Recruitment & Selection , Organizational Development) :

5.Objective 5 To study the impact of changes in the Training and Development due to ISO 9001: 2008 certifications.

6. Objective 6 To study the impact of changes in the Recruitment and Selection due to ISO 9001: 2008 certifications.

7. Objective 7 To study the impact of changes in the Organizational Development due to ISO 9001: 2008 certifications.

Q11. Do you gauge impact of ISO on working systems of your clients- Before and after certification?

(a) Yes ☐

(b) No ☐

Q12. If yes, has ISO QMS shown improvement in following for your clients?

[1- Not At All Improved (0%), 2- Slightly Improved (1% - 25%), 3- Somewhat improved (26% - 50%), 4- Moderately Improved (51% - 75%), 5- Extremely Improved (76% - 100%)]

Srno	Terms	1	2	3	4	5
1	Product/ Service Quality					
2	Productivity					
3	Waste reduction/elimination					
4	Housekeeping awareness					
5	Market Share					
6	Customer base					
7	Employee attitude and behavior					
8	All of the above					
9	Any other- pl specify					

Q10. How do you rate the impact of ISO QMS on improvement in following HR practices of your clients- [

[1- Not At All Improved (0%), 2- Slightly Improved (1% - 25%), 3- Somewhat improved (26% - 50%), 4- Moderately Improved (51% - 75%), 5- Extremely Improved (76% - 100%)]

HR practices	1	2	3	4	5
Training and Development					
Recruitment and Selection					
Organizational Development					

Q15. Has ISO 9001:2008 brought changes/improvements in-

[1- Not At All Improved (0%), 2- Slightly Improved (1% - 25%), 3- Somewhat improved (26% - 50%), 4- Moderately Improved (51% - 75%), 5- Extremely Improved (76% - 100%)]

Terms	1	2	3	4	5
Systems					
Documentation (paper work)					
Approach of employees					
Infrastructure and facilities					
Work environment					
Any other					

Chapter 4

Data Analysis, Interpretation and Findings

- 4.1 Introduction**
- 4.2 Tabulation and Graphical representation**
 - 4.2.1 Questionnaire for HR and QA Department**
 - 4.2.1.1 General Information**
 - 4.2.1.2 Training and Development aspect of HRM**
 - 4.2.1.3 Recruitment & Selection aspect of HRM**
 - 4.2.1.4 Organization Development Interventions**
 - 4.2.1.5 Overall**
 - 4.2.2 Questionnaire for Employees of Various Departments**
 - 4.2.2.1 General Information**
 - 4.2.2.2 T &D, R & S, OD Interventions and overall impact**
- 4.3 Questionnaire for ISO Consultant**
 - 4.3.1 General Information**
 - 4.3.2 Overall Impact**
- 4.4 Testing of Hypotheses**

DATA ANALYSIS, INTERPRETATION AND FINDINGS

4.1 Introduction –

Data collection is an important part of this research. It has helped the researcher in reaching to the final conclusions. Primary data was collected with the help of questionnaire. There are total three questionnaires 1. Questionnaire designed for the employees of HR & QA department, 2. Questionnaire designed for the employees of the various departments, those who has witnessed the pre & post ISO certification era. 3. Questionnaire designed for the ISO consultants. Analysis of the collected data is done after proper coding , software used is SPSS. The resulting analysis is presented in the form of tables , bar charts and pie charts for the easy interpretation.

4.2 Tabulation and Graphical Representation –

Data represented in the form of tables & graphs has a greater impact on the reader also it has made the task of researcher easy. For the better understanding, researcher has represented the data in the same sequence in which the questions were asked. Data from the questionnaire designed for employees of HR & QA department has presented first, followed by data from questionnaire designed for the employees of the various departments, those who has witnessed the pre & post ISO certification era. At the end data from the questionnaire designed for ISO consultants is presented. Detailed data analysis has presented the clear picture about the impact of ISO 9001:2008 Certification on selected HR practices in automobile industry, certified during the period of 2002-2012.

4.2.1 Questionnaire for Employees from HR & QA department –

To assess the impact and effectiveness of ISO 9001:2008 certification on selected HR practices in automobile industry , in Pune region , certified during the period of 2002-2012, a questionnaire was prepared to collect the data from the employees working in HR & QA department , those who were the part of ISO certification process . After collection of the data from 17 large scale automobile industries in Pune region through well designed structured questionnaire , it is processed and analyzed in accordance with the outline laid for the purpose at

the time of developing the research plan. The researcher has all relevant data for making comparisons and analysis.

The term data analysis refers to certain measures in which the researcher is interested to get the pattern of relationship that exists in the collected data. In the process of data analysis , differences or relationships supporting or conflicting with the hypothesis is subjected to the statistical test of significance to determine with what validity data can be said to indicate any conclusions. To represent the raw data in the proper manner/format , various processing operations are performed on it like editing, coding, classification, tabulation. The important statistical measures that are used to summarize the research data are Z- test for proportion , Chi square and Kruskal Wallis test. Data is interpreted using SPSS Software.

4.2.1 Questionnaire for Employees from HR & QA department

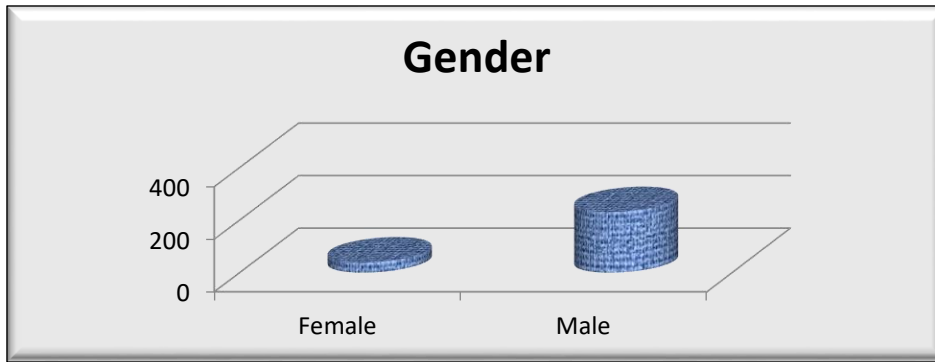
4.2.1.1 General Information-

- The researcher has observed that out of 100% respondents 85.6% respondents are male respondents where as only 14.4 are female respondents

Table 4.1 Frequency distribution of respondents according to Gender

Gender	Frequency	Percent
Female	39	14.4
Male	231	85.6
Total	270	100.0

Graph 4.1 Frequency distribution of respondents according to Gender

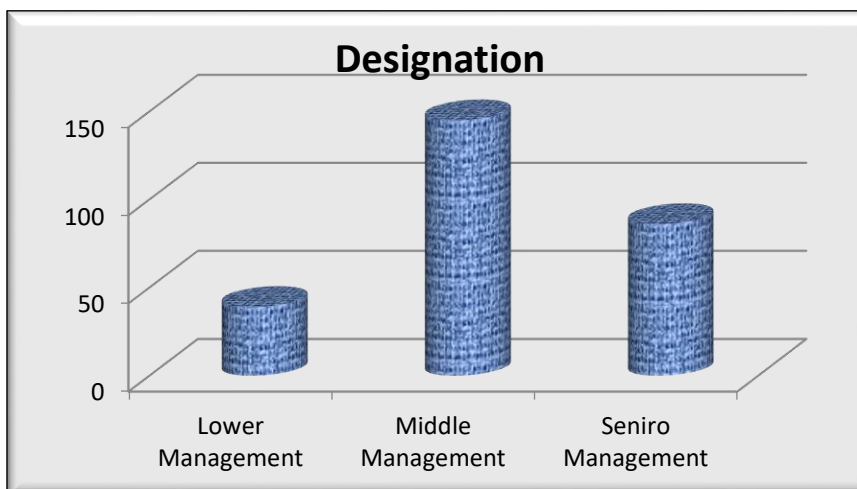


- The observation of researcher from the following analysis is that 53.7% respondents belongs to middle management. It is greater than the lower and senior management which is 14.4% and 31.9% respectively.

Table 4.2 Frequency distribution of respondents according to Designation

Designation	Frequency	Percent
Lower Management	39	14.4
Middle Management	145	53.7
Senior Management	86	31.9
Total	270	100.0

Graph 4.2 Frequency distribution of respondents according to Designation

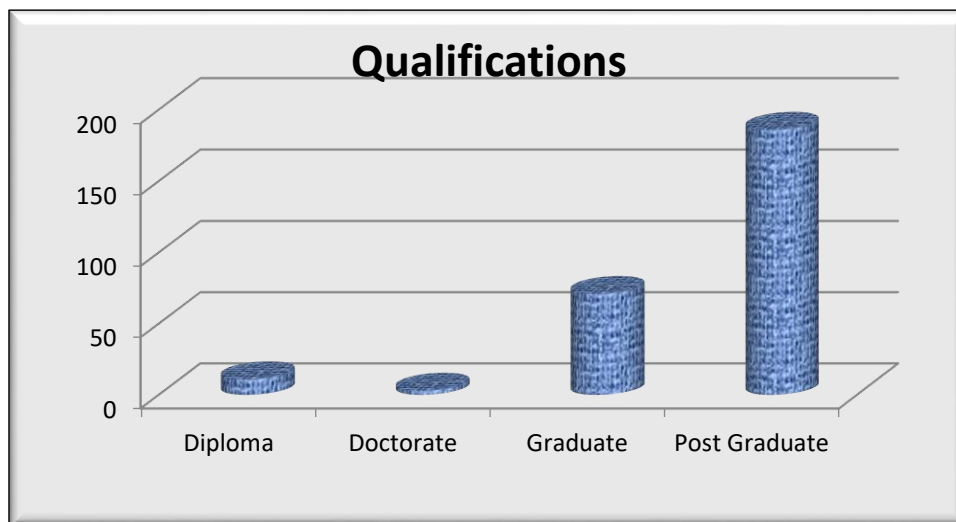


- The researcher has observed that the percentage of respondent who are post graduate is quite high i.e. 68.9% ,where as diploma holder are 4.1% , graduates are 26.3% and doctorate are very less i.e. only 1.1% out of 100%.

Table 4.3 Frequency distribution of respondents according to Qualifications

Qualifications	Frequency	Percent
Diploma	11	4.1
Doctorate	3	1.1
Graduate	71	26.3
Post Graduate	186	68.9
Total	270	100.0

Graph 4.3 Frequency distribution of respondents according to Qualifications



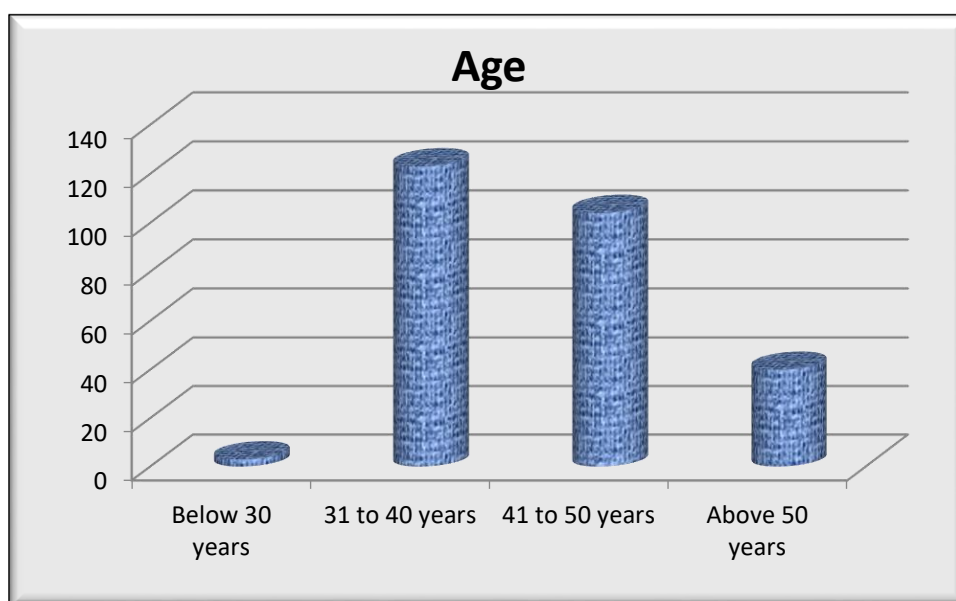
- While the researcher was comparing the respondent, age wise , it has been observed that , the percentage of respondents who belongs to 41 to 50 is greater i.e. almost 38.5% where as respondents below 30 years old are just 1.1%

Table 4.4 Frequency distribution of respondents according to Age

Age	Frequency	Percent
Below 30 years	3	1.1
31 to 40 years	123	45.6
41 to 50 years	104	38.5

Above 50 years	40	14.8
Total	270	100.0

Graph 4.4 Frequency distribution of respondents according to Age



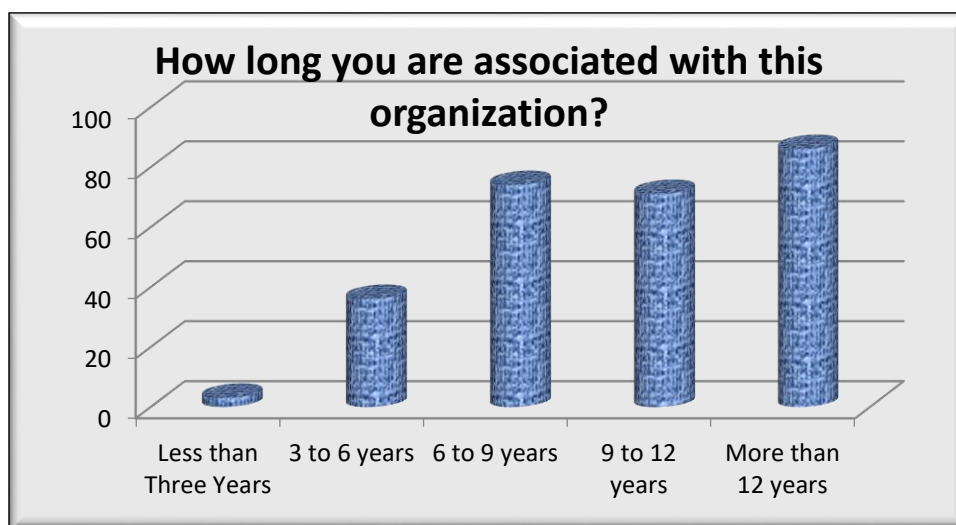
- To understand the work experience ratio in the organization, the researcher has designed this question. The observation says that almost 86 respondents i.e. 31.9% respondents' has greater than 12 years of experience. On the contrary only 1.1% respondents have less than three years association with the organization.

Table 4.5 Frequency distribution of respondents according to period of association with this organization

Period Of Association	Frequency	Percent
Less than Three Years	3	1.1

3 to 6 years	36	13.3
6 to 9 years	74	27.4
9 to 12 years	71	26.3
More than 12 years	86	31.9
Total	270	100.0

Graph 4.5 Frequency distribution of respondents according to their tenure with the organization



- The scope of this research was ISO certified Automobile industries in the period 2002 to 2012 in Pune region. The following table shows companies registered during the period 2002 to 2012.

Table 4.6 The frequency distribution of respondents according to year of ISO Certification

Year Of ISO certification	Frequency	Percent
2002	33	12.2
2003	38	14.1
2007	28	10.4

2008	52	19.3
2009	9	3.3
2010	60	22.2
2011	40	14.8
2012	10	3.7
Total	270	100.0

Graph 4.6 Frequency distribution of respondents according to year of ISO Certification



- The researcher was interested in getting the responses from the respondent those who have observed the pre ISO certification era in the organization. 95.9% respondents have observed the pre ISO certification era in the organization.

Table 4.7 Frequency distribution of respondents according to witnessing the Pre-ISO era in the organization

Have you witnessed /observed Pre-ISO era in your organization?	Frequency	Percent
No	11	4.1

Yes	259	95.9
Total	270	100.0

Graph 4.7 Frequency distribution of respondents according to witnessing the Pre-ISO era in the organization



- To find out the impact of ISO certification in evaluating the effectiveness of HR practices, researcher has included this question in the questionnaire. Almost 59.6% respondent agrees that it is most significant. 37.0% respondents say it is significant, 1.9% respondents are neutral, where as 1.5% respondents are of the opinion that it is not significant.

Table 4.8 Frequency distribution of respondents according to role of ISO Certification in evaluating effectiveness of HR Practices

Role of ISO Certification in evaluating effectiveness of HR Practices	Frequency	Percent
Most Significant	161	59.6
Significant	100	37.0

Neutral	5	1.9
Not Significant	4	1.5
Total	270	100.0

Graph 4.8 Frequency distribution of respondents according to role of ISO Certification in evaluating effectiveness of HR Practices.



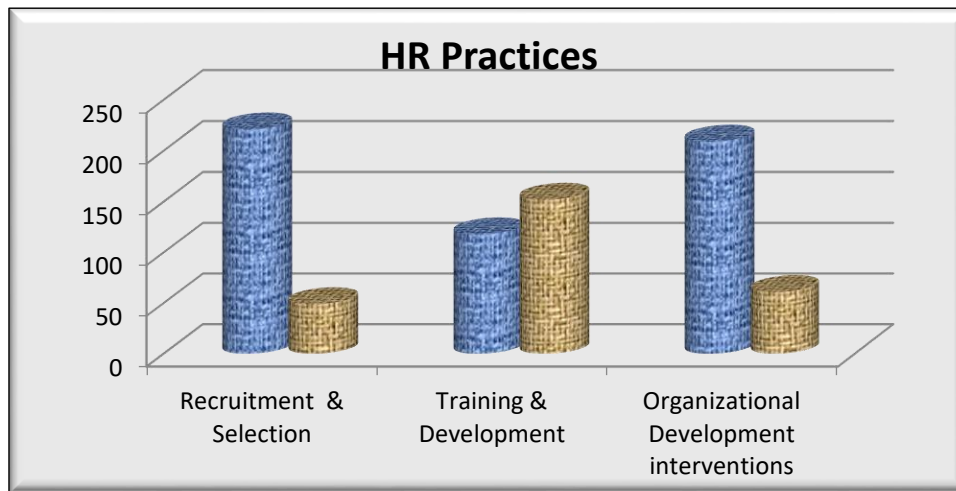
4.2.1.2 Training and Development aspect of HRM

- To assess the issues in selected HR practices prior to ISO certification, researcher has designed this question, majority respondents has claimed that as compared to T&D , there were more HR issues in R & S and OD interventions.

Table 4.9 Frequency distribution of respondents according to HR issues prior to ISO

HR Practices	Yes	%	No	%
Recruitment & Selection	221	81.9	49	18.1
Training & Development	118	43.7	152	56.3
Organizational Development interventions	209	77.4	61	22.6

Graph 4.9 Frequency distribution of respondents according to HR issues prior to ISO



The above graph indicates that , there were major HR issue among the listed ones is ‘Recruitment & Selection’; then ‘Organizational Development interventions’ & lastly ‘Training & Development’.

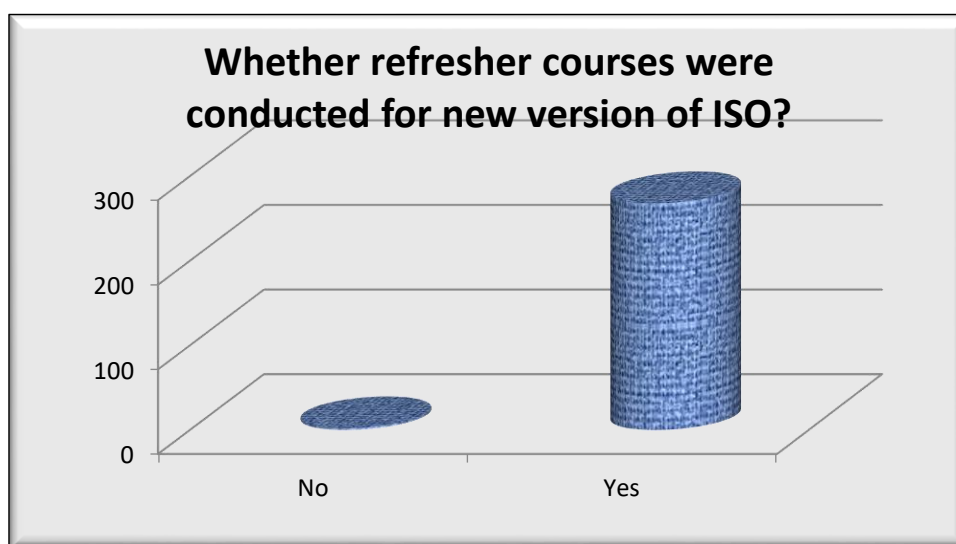
- To upgrade the knowledge of employees, refresher courses regarding the new version of ISO are conducted by the company. It is the observation of the respondent that , out of 270 respondents almost 268 i.e. 99.3% employees states that the refresher courses are conducted where as only 2 respondents i.e. .7% respondents says that refresher courses for new ISO version were not conducted.

Table 4.10 Frequency distribution of respondents according to whether refresher courses were conducted

Whether refresher courses were conducted for new version of ISO?	Frequency	Percent
No	2	.7
Yes	268	99.3

Total	270	100.0
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Graph 4.10 Frequency distribution of respondents according to whether refresher courses



The percentage of respondents saying ‘Yes’ is much larger than that saying ‘No’.

- In the process of ISO certification, company is expected to conduct basic training programs for its employees, to make them aware about the ISO QMS system. Following all training programs are important from the view point of company and employees. The researcher has observed that the percentage of all listed training programs conducted by the company is greater than 90%. It shows that almost all training programs are conducted by the automobile industries.

Table 4.11 Frequency distribution of respondents according to Training programs conducted by the company, related to ISO certification

Training programs conducted by the co related to ISO certification	Frequency	Percent
Training program on ISO QMS Awareness	264	97.8
Training program on ISO Documentation	257	95.2
Training program on ISO Process Mapping	255	94.4

Training program on ISO Internal Auditor Training	262	97.0
Training program on Disciplined Problem Solving	257	95.2
Training program on Corrective & Preventive Action	259	95.9
Training program on Continual Improvement	251	93.0

Graph 4.11 Frequency distribution of respondents according to Training programs, conducted by the company, related to ISO certification



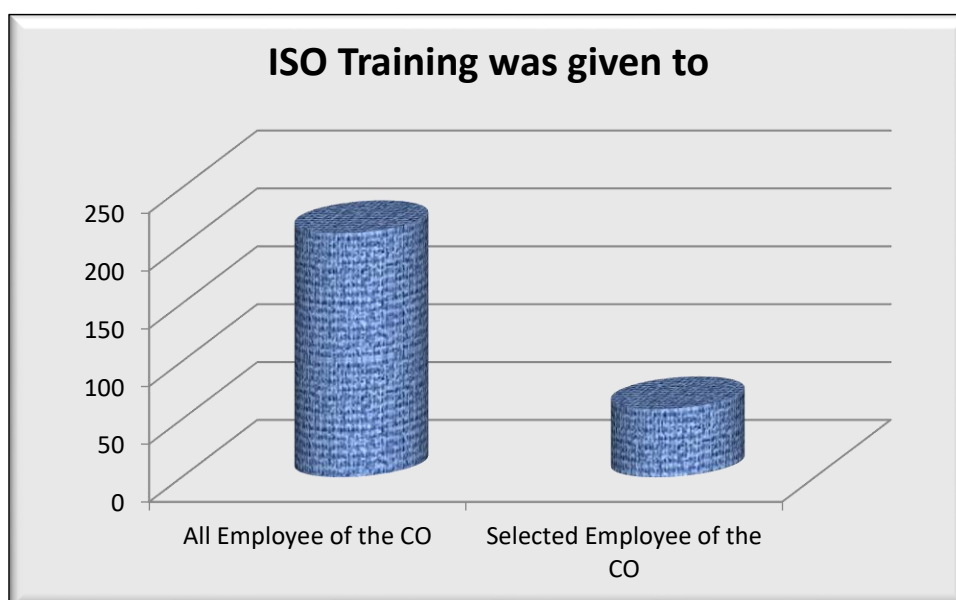
The highest response for training program ‘Training program on ISO QMS Awareness’; then ‘Training program on ISO Internal Auditor Training’; then ‘Training program on Corrective & Preventive Action’; then ‘Training program on ISO Documentation’; then ‘Training program on ISO Process Mapping’ & ‘Training program on Disciplined Problem Solving’; then ‘Training program on Continual Improvement’.

- The researcher has observed that almost 78.1% respondents claims that the above mentioned training programs are conducted for all employees of the organization, But 21.9% says, it is conducted for selected employees in the organization. The selection criteria is generally the representatives of the various department, sometimes seniority , sometimes people involved in the ISO certification process etc.

Table 4.12 Frequency distribution of respondents according to the criteria for providing ISO Training

ISO Training was given to	Frequency	Percent
All Employee of the CO	211	78.1
Selected Employee of the CO	59	21.9
Total	270	100.0

Graph 4.12 Frequency distribution of respondents according to criteria for providing ISO Training



It is observed by the researcher that every co. has a training policy regarding whom to give training programs. But in case of ISO , irrespective of the functional area of the employee, generally basic ISO training programs are provided to all the employees of the organization. But some times co. may have a policy to provide the ISO training programs to the selected employees of the organization. The criteria used may be employees directly involved in the ISO certification process, representatives of the various departments etc. In the present study , researcher has found that , most of the co. provide training programs to all the employees of the organization. It will help to inculcate the habit of maintaining quality in all functional areas of the organization.

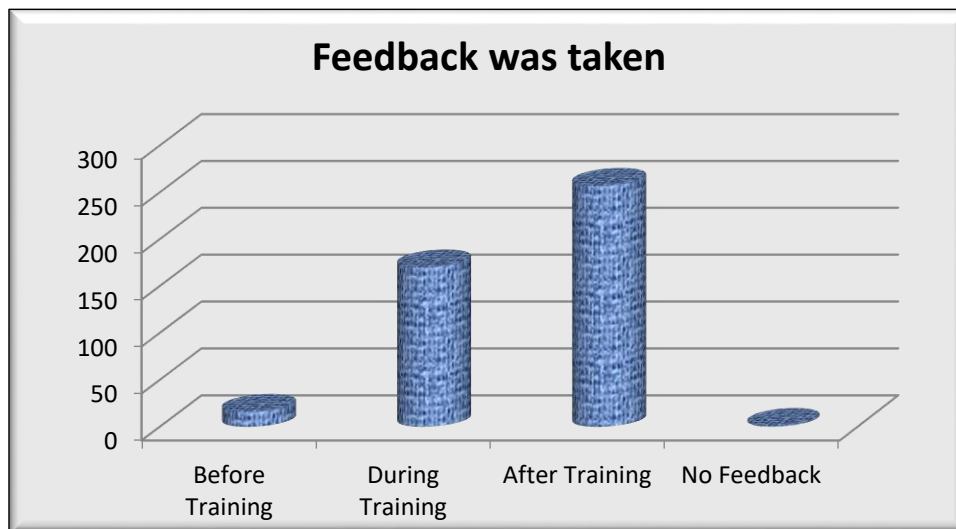
- It is observed by the researcher that , 95.2 % respondents has given the response that feedback is conducted after the training , 63.0% responses states that feedback is taken

during the training , 5.9% responses indicates that feedback is taken before training and only .4% responses says no feedback is conducted.

Table 4.13 Frequency distribution of respondents according to feedback method on ISO Training

Feedback Method	Frequency	Percent
Before Training	16	5.9
During Training	170	63.0
After Training	257	95.2
No Feedback	1	.4

Graph 4.13 Frequency distribution of respondents according to feedback method



While providing the training, feedback is the important mechanism in knowing the impact of training. There are various methods of taking the feedback. Generally to

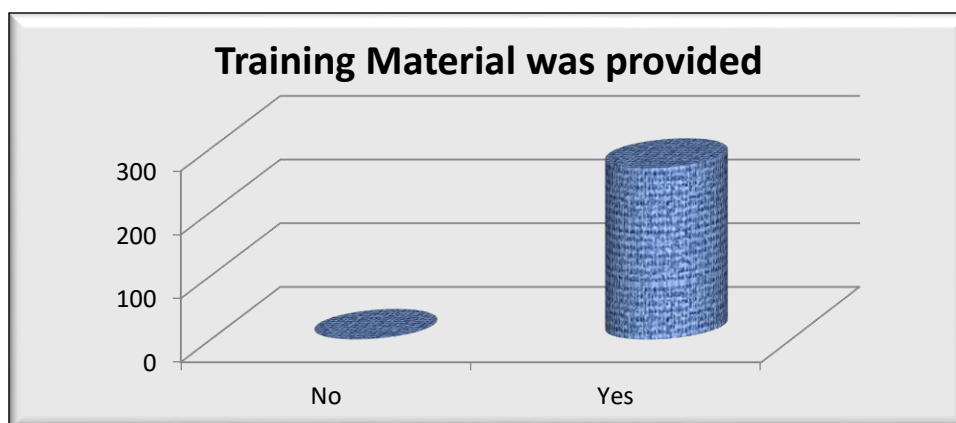
understand the expectations from training program, feedback may be taken before training. Feedback taken during the training may be useful for knowing it in time, whether the candidates attending the training programs are happy with it. To know the final opinion about the training program, generally after training feedback is conducted. Rarely it may be observed, that the organizations are confident about the training programs, may not take the feedback. Even it is found that some organizations may take feedback at every stage. Off course feedback taken is always helpful to decide the future course of action. The researcher found that many respondents have selected the option feedback is taken during training and after training.

- Training material is useful for the candidates to refer it whenever required. It is the researchers observation that the ISO training material was provided to almost 99.6% i.e. 269 respondents out of 270.

Table 4.14 Frequency distribution of respondents according to Training Material provided

Training Material was provided	Frequency	Percent
No	1	.4
Yes	269	99.6
Total	270	100.0

Graph 4.14 Frequency distribution of respondents according to Training Material provided



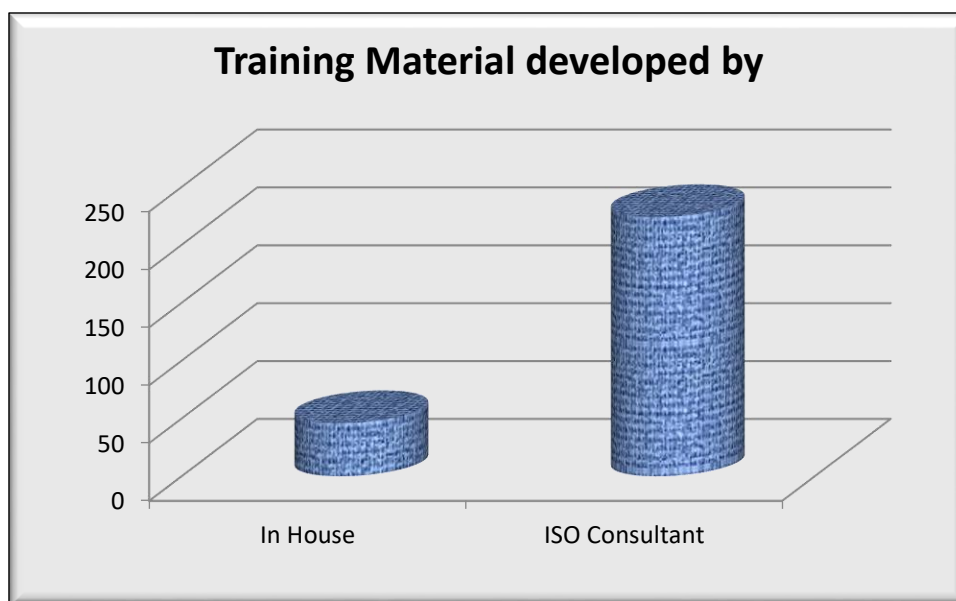
Training material is generally provided to the candidates during the training programmes. It helps them to refer , if required, in future. It is the observation of the researcher that the ISO training program material , which is generally developed by the ISO consultant is provided to the candidates.

- ISO training programs are generally conducted by the experts like ISO consultant. He/ she may be in house ISO expert or ISO consultant. In the present research, 83.0% respondents claims that training material is developed by the ISO consultant and only 17.0% respondent says , it is developed by in house expert.

Table 4.15 Frequency distribution of respondents according to Training Material developed by in house expert / ISO consultant.

Training Material developed by	Frequency	Percent
In House	46	17.0
ISO Consultant	224	83.0
Total	270	100.0

Graph 4.15 Frequency distribution of respondents according to Training Material developed by In house expert / ISO Consultant

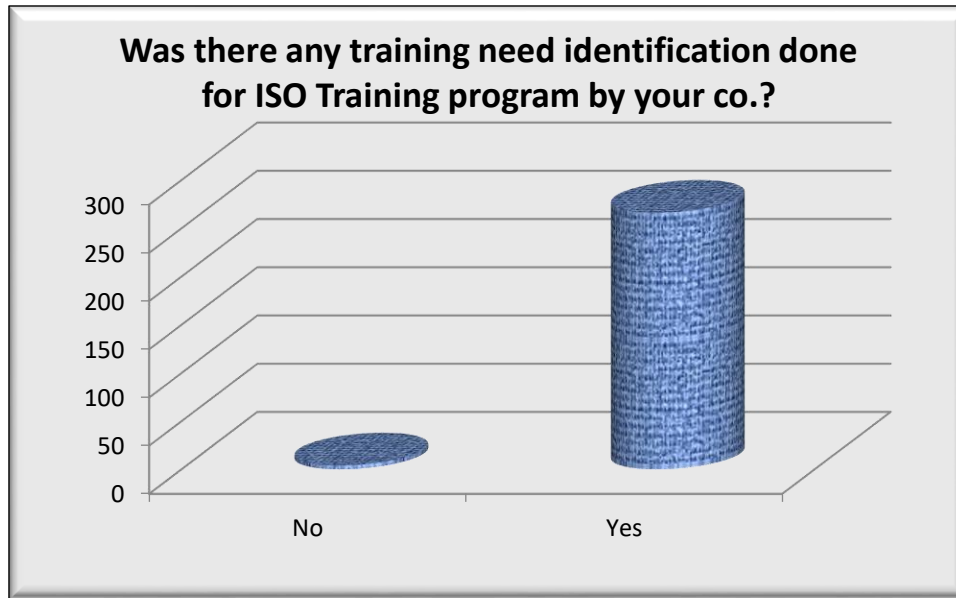


- Before designing of the training program, generally training need identification is done by the management to assess the exact training requirements of the employees. Even it gives input to the management about the training expectations of the candidates. The researcher has designed this question to highlight whether training need identification activity was carried out for ISO training program. The analysis shows that in most of the automobile industries training need identification is done. Almost 98.5% respondents states that training need identification is done for ISO training program.

Table 4.16 Frequency distribution of respondents according to the responses for training need identification done for ISO Training program

Training Need Identification Done	Frequency	Percent
No	4	1.5
Yes	266	98.5
Total	270	100.0

Graph 4.16 Frequency distribution of respondents according to the responses for training need identification done for ISO Training program



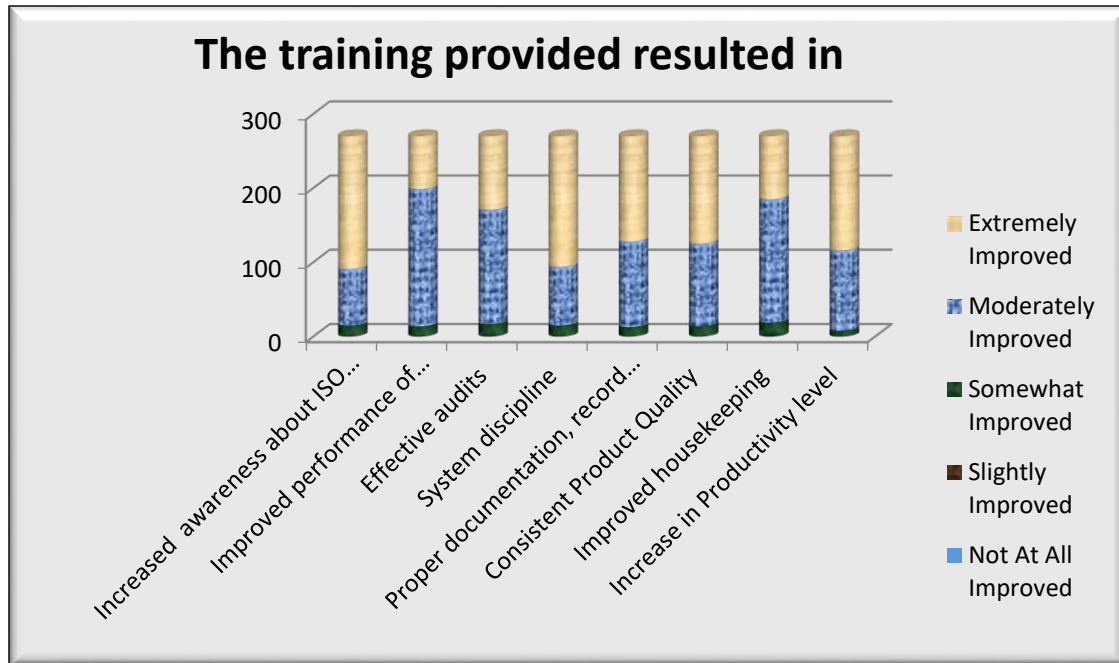
- To understand the exact impact of the training provided to the employees , the researcher has designed few parameters in the questionnaire , which are related to organization or to the employees, those who have undergone the training. There were almost eight various parameters. Out of those parameters , five parameters i.e. **increased awareness about QMS, system discipline improved, proper documentation & record keeping , consistent product quality , increased productivity level** have shown extremely improvement. At the same time improved **performance of the department during audit, effective audit, improved housekeeping** exhibits moderate improvement. It gives the knowledge to the researcher that there is a positive impact of training on all stated parameter.

Table 4.17 Frequency distribution of respondents according to the impact of training provided to the employees

The training provided resulted in	Not At All Improved	Slightly Improved	Somewhat Improved	Moderately Improved	Extremely Improved
Increased awareness about ISO QMS	0	1	14	76	179
%	0.0	0.4	5.2	28.1	66.3
Improved performance of departments during	0	1	13	185	71

internal/external audits					
%	0.0	0.4	4.8	68.5	26.3
Effective audits	0	1	16	154	99
%	0.0	0.4	5.9	57.0	36.7
System discipline	0	1	14	79	176
%	0.0	0.4	5.2	29.3	65.2
Proper documentation, record keeping	0	0	13	115	142
%	0.0	0.0	4.8	42.6	52.6
Consistent Product Quality	0	0	14	111	145
%	0.0	0.0	5.2	41.1	53.7
Improved housekeeping	0	0	19	166	85
%	0.0	0.0	7.0	61.5	31.5
Increase in Productivity level	0	1	7	108	154
%	0.0	0.4	2.6	40.0	57.0

Graph 4.17 Frequency distribution of respondents according to the impact of training provided to the employees



The Maximum response is for ‘Increase in Productivity level’; then ‘Proper documentation, record keeping’; then ‘Improved performance of departments during internal/external audits’ & ‘Consistent Product Quality’; then ‘Increased awareness about ISO QMS’ & ‘System discipline’; then ‘Effective audits’; & lastly ‘Improved housekeeping’.

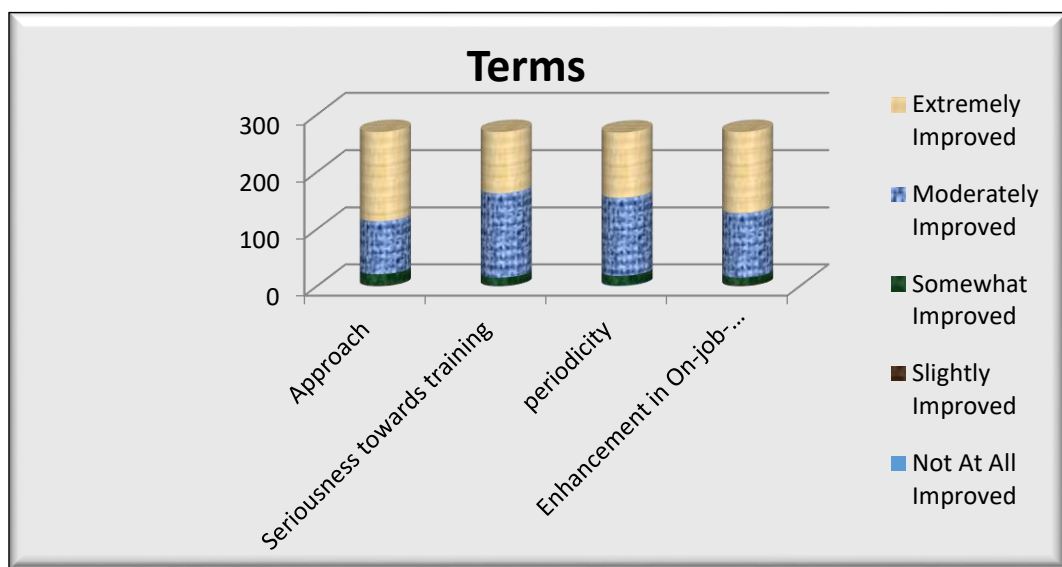
- The researcher has used the different parameters , while assessing the impact/ result of improved T & D process like approach , seriousness towards training, periodicity, enhancement in on the job performance. It is observed by the researcher that maximum respondents claims - approach & enhancement in on the job performance are extremely improved , where as seriousness towards training and periodicity shows moderately improvement.

Table 4.18 Frequency distribution of respondents according to impact of improved Training & Development process in organization

Terms	Not At All	Slightly	Somewhat	Moderately	Extremely
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	Improved	Improved	Improved	Improved	Improved
Approach	0	2	19	93	156
%	0.0	0.7	7.0	34.4	57.8
Seriousness towards training	0	1	14	148	107
%	0.0	0.4	5.2	54.8	39.6
periodicity	1	0	17	137	114
%	0.4	0.0	6.3	50.7	42.2
Enhancement in On-job-performance	0	2	13	113	142
%	0.0	0.7	4.8	41.9	52.6

Graph 4.18Frequency distribution of respondents according to impact of improved Training & Development process in organization



While talking about candidates approach , seriousness towards training program, periodicity , enhancement on the job performance, the researcher has observed that the approach of candidates towards training program is positive. They are interested in

attending the training programs. Employees are quite serious while attending the training programs. Periodicity talks about the frequency of the training program, employees are happy with the periodicity followed by the organization. Definitely there is an enhancement in on the job performance of the employees after attending the training program.

The researcher was interested in knowing whether the impact or effectiveness of ISO training programmes provided to the employees is assessed or not. . Almost 98.1% respondents say that the assessment of impact of ISO training is done in the organization.

4.19 Frequency distribution of respondents according to is whether the impact/ effectiveness of ISO training program is assessed

Assessment of impact/ effectiveness of ISO training program provided to employees in the organization	Frequency	Percent
No	5	1.9
Yes	265	98.1
Total	270	100.0

Graph4.19 Frequency distribution of respondents according to is whether the impact/ effectiveness of ISO training program is assessed



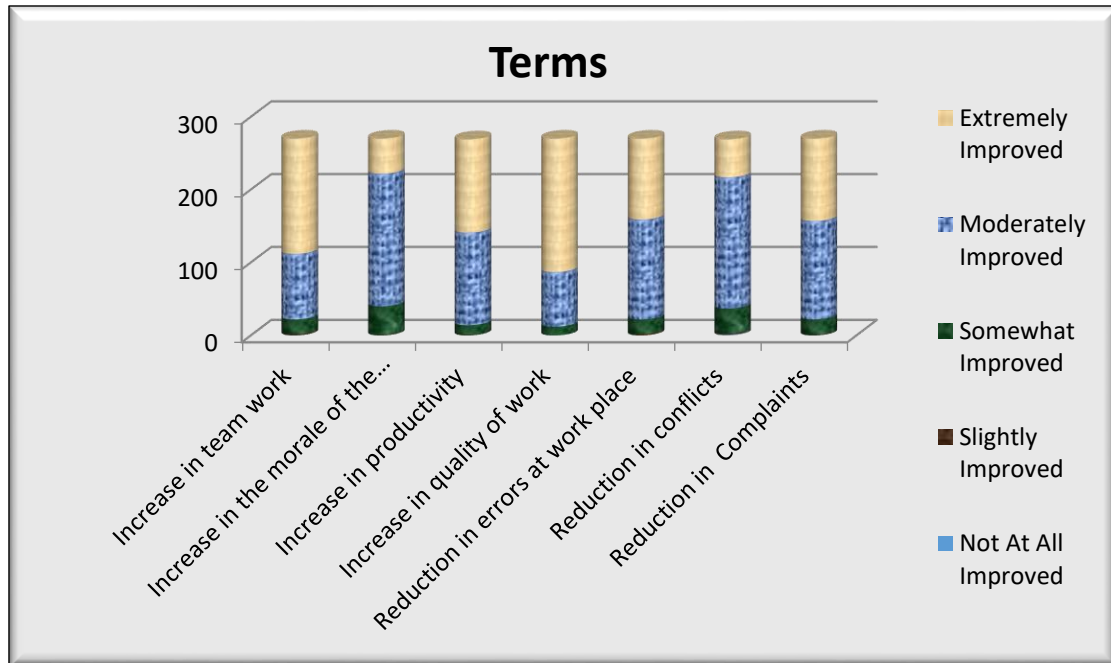
- The researcher has measured the effectiveness of ISO training program on seven different parameters like **increase in team work** , **increase in morale of the employees** , **increase in productivity** , **increase in quality of work** , **reduction in errors at work place** , **reduction in conflicts** , and **reduction in complaints**. The analysis shows a very

significant impact on all these parameters. **Increase in team work , increase in productivity , increase in quality of work** exhibits extremely improvement , where as **increase in morale of the employees, reduction in errors at work place, reduction in conflicts , and reduction in complaints** show moderate improvement.

Table 4.20 Frequency distribution of respondents according to measuring the effectiveness of ISO training program in your co is given below along with its bar chart.

Terms	Not At All Improved	Slightly Improved	Somewhat Improved	Moderately Improved	Extremely Improved
Increase in team work	0	2	20	90	158
%	0.0	0.7	7.4	33.3	58.5
Increase in the morale of the employees	0	1	39	182	48
%	0.0	0.4	14.4	67.4	17.8
Increase in productivity	0	1	13	127	128
%	0.0	0.4	4.8	47.0	47.4
Increase in quality of work	0	0	12	75	183
%	0.0	0.0	4.4	27.8	67.8
Reduction in errors at work place	0	2	20	137	111
%	0.0	0.7	7.4	50.7	41.1
Reduction in conflicts	1	2	34	180	52
%	0.4	0.7	12.6	66.7	19.3
Reduction in Complaints	0	1	21	135	113
%	0.0	0.4	7.8	50.0	41.9

Graph 4.20 Frequency distribution of respondents according to measuring the effectiveness of ISO training program in your co



The Maximum response is for 'Increase in quality of work'; then 'Increase in productivity'; then 'Increase in team work' & 'Reduction in errors at work place' & 'Reduction in Complaints'; then 'Reduction in conflicts'; then 'Increase in the morale of the employees'.

The overall impact of ISO certification shows remarkable improvement in T & D.

4.2.1.3 Recruitment and Selection aspect of HRM

Recruitment & Selection is the process, which is responsible for recruiting & selecting the right person, for the right job , at right cost. If this happens , that right person is employed in the organization , definitely he will give his 100% to the organization and thereby will contribute in the performance of the organization. This is the reason, why R & S is treated as the important HR function.

To understand the impact of ISO certification on R & S aspect of HRM , the researcher has designed the questionnaire considering all angles of R & S , which are very important. To analysis the impact of ISO certification on R & S researcher has taken the

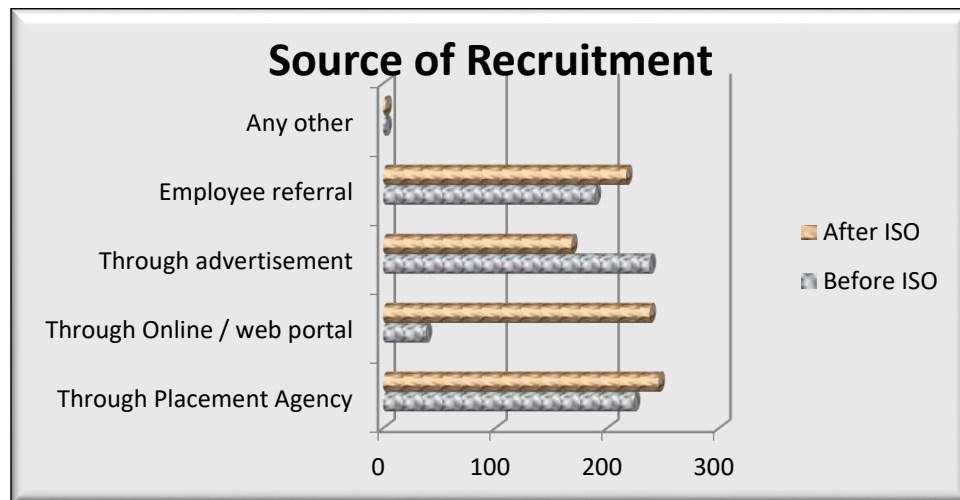
feedback on various parameters prior to ISO and post ISO. This has helped the researcher to compare the difference between two eras.

While comparing the sources of recruitment before ISO and after ISO , the researcher has observed that the prominently used sources before ISO were through placement agency , through advertisement and through employee referral. Hardly any companies used recruitment through web portal. Whereas after ISO , maximum used sources of recruitment were through placement agency, web portal and employee referral.

Table 4.21 Frequency distribution of respondents according to source of Recruitment

Source of Recruitment	Before ISO	%	After ISO	%
Through Placement Agency	224	83.0	246	91.1
Through Online / web portal	38	14.1	238	88.1
Through advertisement	238	88.1	168	62.2
Employee referral	189	70.0	217	80.4
Any other , please specify	2	0.7	2	0.7

Graph 4.21 Frequency distribution of respondents according to source of Recruitment



Before ISO the source of recruitment in the organization mostly is ‘Through advertisement’; then ‘Through Placement Agency’; then ‘Employee referral’; then ‘Through Online / web portal’ & lastly ‘Any Other’ that is ‘Top Management Selection’ & ‘Walk in interviews’.

After ISO the source of recruitment in the organization mostly is ‘Through Placement Agency’; then ‘Through Online / web portal’; then ‘Employee referral’; then ‘Through advertisement’ & lastly ‘Any Other’ that is ‘Top Management Selection’ & ‘Walk in interviews’.

‘Through Placement Agency’; ‘Through Online / web portal’; ‘Employee referral’ are on higher side after ISO & ‘Through advertisement’ is on lower side after ISO.

- While observing whether organization follows the guidelines of ISO in the process of recruitment and selection, the researcher has seen that 98.5% organizations follow the guidelines.

Table 4.22 Frequency distribution of respondents according to whether ISO guidelines are followed in the process of recruitment& selection of employees

Whether organization follow ISO guidelines in the process of recruitment& selection of employees at different levels	Frequency	Percent
No	4	1.5
Yes	266	98.5
Total	270	100.0

Graph 4.22 Frequency distribution of respondents according to whether ISO guidelines are followed in the process of recruitment& selection of employees



- The following analysis gives the knowledge to the researcher that, almost 99.3% respondents claims that there is an improvement in the process of recruitment and selection.

Table 4.23 Frequency distribution of respondents according to improvement in recruitment and selection process in organization after ISO certification

Do you think there is improvement in recruitment and selection process in organization after ISO certification?	Frequency	Percent
No	2	0.7
Yes	268	99.3
Total	270	100.0

Graph 4.23 Frequency distribution of respondents according to improvement in recruitment and selection process in organization after ISO certification.



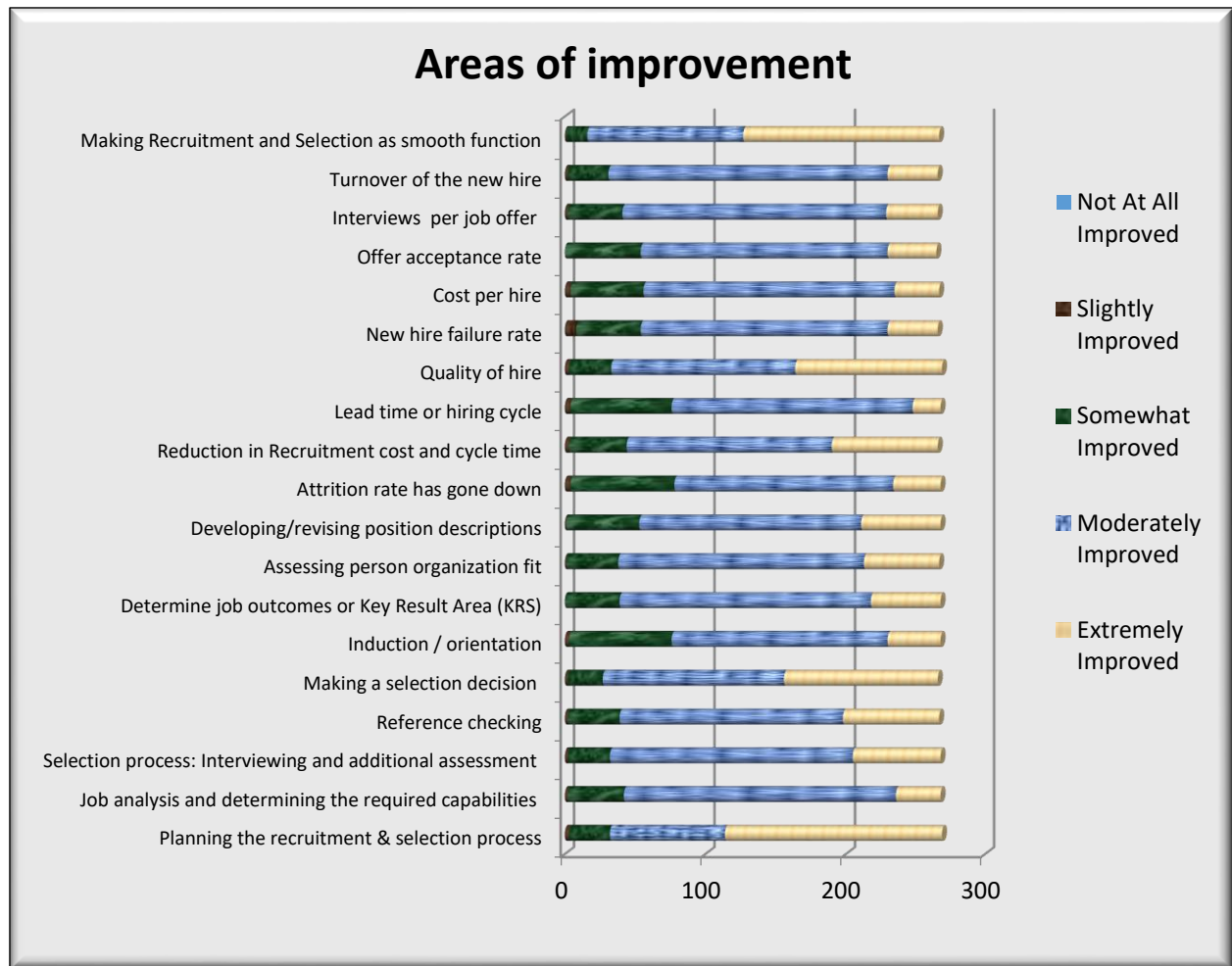
- To study the impact of ISO certification on R&S from all angles , researcher has used 19 parameters related to R&S in the questionnaire. Out of 19 parameters , six parameters , i.e. Induction/orientation, attrition rate has gone down, lead time or hiring cycle, new hire failure rate , cost per hire , offer acceptance rate has shown moderately improvement ,rest all 13 parameters are shows extremely improvement.

Table 4.24 Frequency distribution of respondents according to areas of improvement is given below along with its bar chart.

Areas of improvement	Not At All Improved	Slightly Improved	Somewhat Improved	Moderately Improved	Extremely Improved
Planning the recruitment & selection process	0	3	29	82	155
%	0.0	1.1	10.7	30.4	57.4
Job analysis and determining the required capabilities	0	2	40	194	32
%	0.0	0.7	14.8	71.9	11.9
Selection process: Interviewing and additional assessment	0	2	30	173	63
%	0.0	0.7	11.1	64.1	23.3
Reference checking	0	2	37	159	69
%	0.0	0.7	13.7	58.9	25.6
Making a selection decision	0	2	25	129	110
%	0.0	0.7	9.3	47.8	40.7
Induction / orientation	0	3	73	154	38
%	0.0	1.1	27.0	57.0	14.1
Determine job outcomes or Key Result Area (KRS)	0	0	39	179	50
%	0.0	0.0	14.4	66.3	18.5
Assessing person organization fit	0	1	37	175	54
%	0.0	0.4	13.7	64.8	20.0

Areas of improvement	Not At All Improved	Slightly Improved	Somewhat Improved	Moderately Improved	Extremely Improved
Developing/revising position descriptions	0	1	52	158	57
%	0.0	0.4	19.3	58.5	21.1
Attrition rate has gone down	0	4	74	156	34
%	0.0	1.5	27.4	57.8	12.6
Reduction in Recruitment cost and cycle time	0	3	41	146	76
%	0.0	1.1	15.2	54.1	28.1
Lead time or hiring cycle	0	4	72	172	20
%	0.0	1.5	26.7	63.7	7.4
Quality of hire	0	3	30	131	105
%	0.0	1.1	11.1	48.5	38.9
New hire failure rate	0	8	46	176	36
%	0.0	3.0	17.0	65.2	13.3
Cost per hire	0	4	52	179	32
%	0.0	1.5	19.3	66.3	11.9
Offer acceptance rate	0	0	54	176	35
%	0.0	0.0	20.0	65.2	13.0
Interviews per job offer	0	2	39	188	37
%	0.0	0.7	14.4	69.6	13.7
Turnover of the new hire	0	2	29	199	36
%	0.0	0.7	10.7	73.7	13.3
Making Recruitment and Selection as smooth function.	0	1	15	111	140
%	0.0	0.4	5.6	41.1	51.9

Graph 4.24 Frequency distribution of respondents according to areas of improvement



The researcher has used various 19 parameters related to R & S., for testing the impact of ISO certification. All these 19 parameters extensively cover the R& S process. It is observed by the researcher that , 6 parameters out of 19 can be further improved by taking corrective actions. These 6 parameters are – **Induction / orientation program** – Induction programs are designed for the newly joined employees , to make them aware of the co , employees , bosses, organizational structure , various policies etc. Properly designed induction programs , makes the newly joined employees comfortable in the organization. **Attrition rate** talk about the rate of employees leaving the organization. If better opportunities and better working conditions and environment are provided to the employees, then hardly employees will leave the organization.

Lead time or hiring cycle means time required for recruitment and selection process. If the R & S process is planned properly , obviously less time will be required for hiring the employees. **New hire failure rate**, means candidates selected may not join the organization. It is a loss for the organization. There can be many reasons for this like working environment of the organization , pay scale offered, brand image of the organization in the market etc. **Cost per hire** pertains to the amount spent by the organization on R & S process. The cost involves many factors like advertisement , organizing interviews, selection process, and cost involved in other processes of R & S. If the R & S process is planned properly then definitely the cost per hire will reduce. The last parameter is **offer acceptance rate**. After selecting the candidate , offer letters are issued to the candidate. If the candidate finds the offer suitable then, he/she will accept it. Other than these 6 , rest of the 13 parameters have shown extremely improvement due to ISO certification. The following statistical analysis shows that except above mentioned 6 parameters which shows non significant results , all other i.e. 13 parameters shows significant results. It shows HR has to take additional efforts on those non significant parameters.

4.2.1.4 Organization Development Interventions

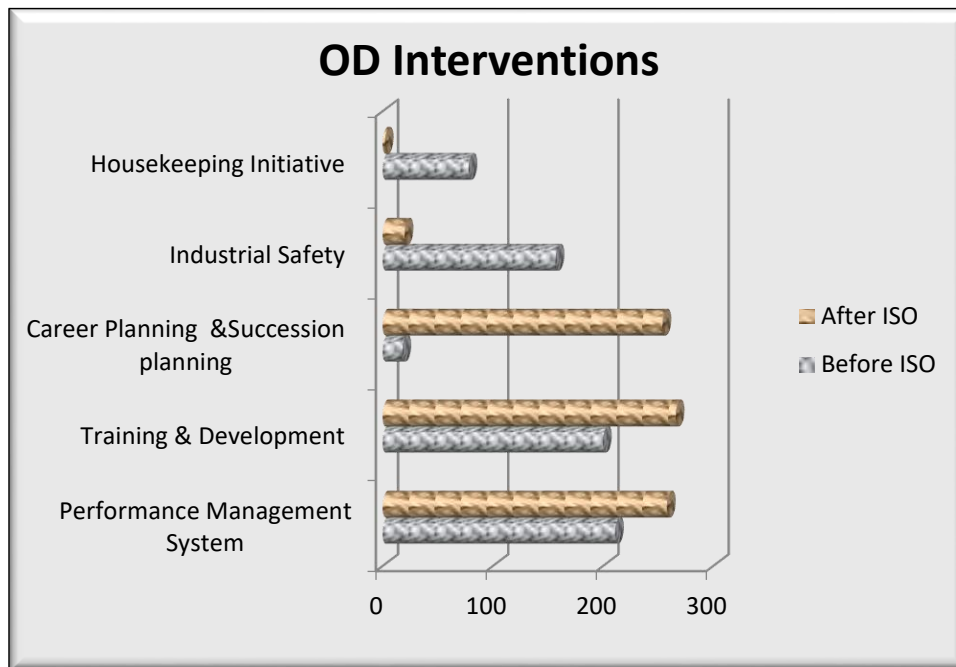
Every organization continuously strives for its progress, and make its position , so that it will prosper and will sustain in the market. Organization Development is nothing but the change management. OD believes on the continuous improvement in the organization. Most of the time , these changes must be a planned change. HR plays important role in managing this change.

- Five OD interventions were considered to assess the pre & post ISO certification impact. The researcher observed from the following analysis that, in most of the automobile industries, before ISO , PMS and T & D and Industrial safety were successfully implemented, as compared to career & succession planning and housekeeping initiatives. Whereas, after ISO certification, PMS ,T & D and career & succession planning were successfully implemented as compared Industrial safety and house keeping initiatives.

Table 4.25 Frequency distribution of respondents according to OD Interventions implemented before and after ISO

OD Interventions	Before ISO	%	After ISO	%
Performance Management System [PMS]	211	78.1	258	95.6
Training & Development	200	74.1	266	98.5
Career Planning & Succession planning	18	6.7	254	94.1
Industrial Safety	157	58.1	20	7.4
Housekeeping Initiative	78	28.9	2	0.7

Graph 4.25 Frequency distribution of respondents according to OD Interventions implemented before and after ISO



Before ISO the OD Interventions mostly is ‘Performance Management System [PMS]’; then ‘Training & Development’; then ‘Industrial Safety’; then ‘Housekeeping Initiative’ & lastly ‘Career Planning & Succession planning’.

After ISO the OD Interventions mostly is ‘Training & Development’; then ‘Performance Management System [PMS]’; then ‘Career Planning & Succession planning’; then ‘Industrial Safety’; then ‘Housekeeping Initiative’.

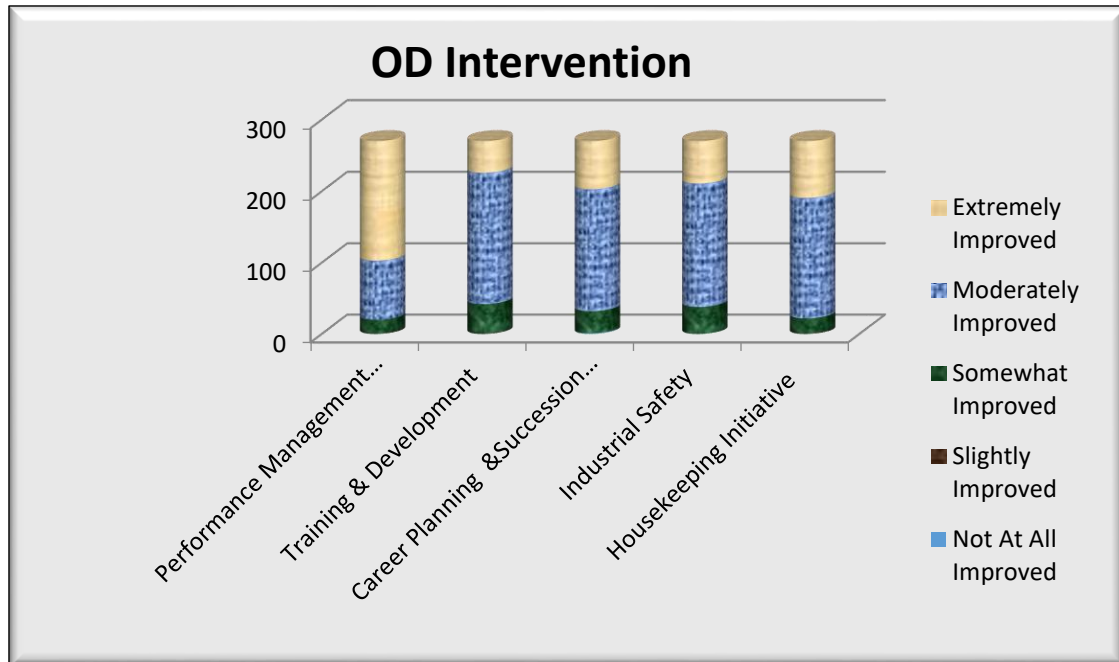
Performance Management System [PMS]'; 'Training & Development'; 'Career Planning & Succession planning' are on higher side after ISO & 'Industrial Safety'; 'Housekeeping Initiative' are on lower side after ISO.

- Out of five major OD interventions, i.e. PMS , T & D, career & succession planning, industrial safety, housekeeping initiatives, the observation of the researcher is that there is extremely improvement in PMS (61.9%), whereas there is moderate improvement shown in T & D(68.1%), career & succession planning(63.3), industrial safety(64.1%), housekeeping initiatives (62.6%) after ISO certification.

Table 4.26 Frequency distribution of respondents according to OD Intervention is given below along with its bar chart.

OD Intervention	Not At All Improved	Slightly Improved	Somewhat Improved	Moderately Improved	Extremely Improved
Performance Management System	0	1	19	83	167
%	0.0	0.4	7.0	30.7	61.9
Training & Development	0	1	41	184	44
%	0.0	0.4	15.2	68.1	16.3
Career Planning & Succession planning	1	0	31	171	67
%	0.4	0.0	11.5	63.3	24.8
Industrial Safety	0	0	38	173	59
%	0.0	0.0	14.1	64.1	21.9
Housekeeping Initiative	0	1	21	169	79
%	0.0	0.4	7.8	62.6	29.3

Graph 4.26 Frequency distribution of respondents according to OD Intervention



The Maximum response is for 'Performance Management System [PMS]'; then 'Housekeeping Initiative'; then 'Career Planning & Succession planning'; then 'Industrial Safety'; then lastly 'Training & Development'

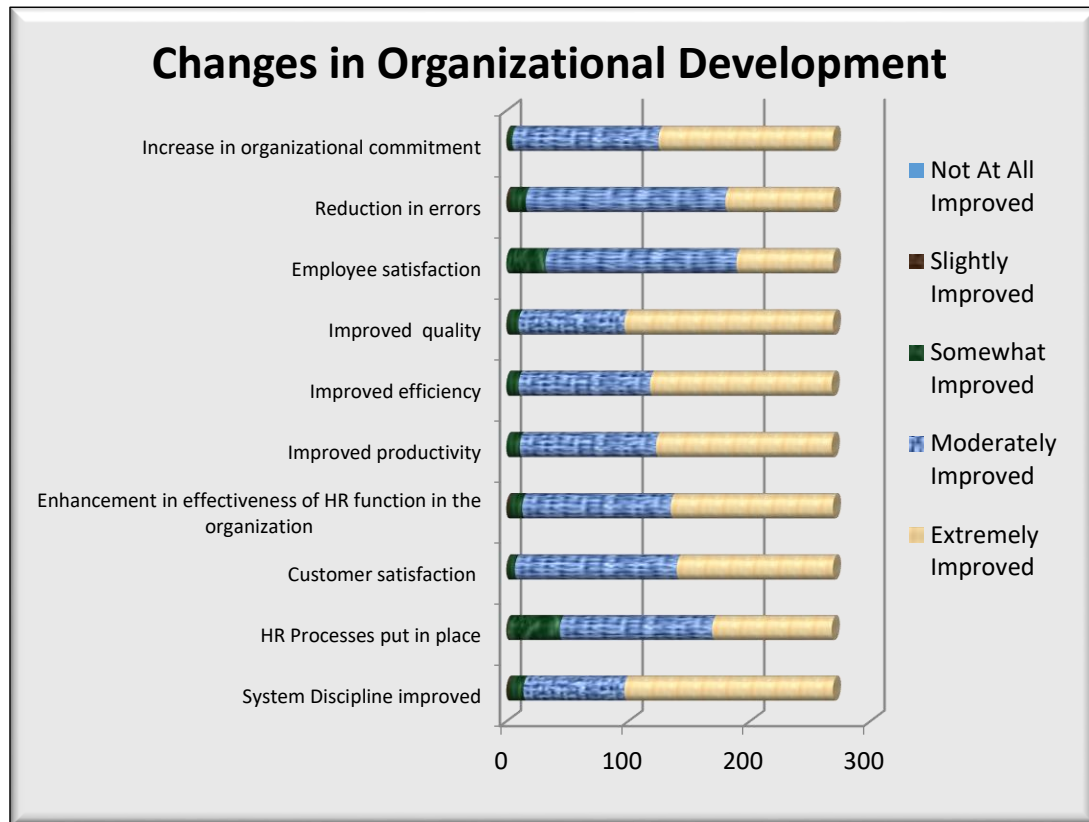
- To assess the impact/ changes due to OD intervention, researcher has used 10 parameters. Out of those 10 parameters , system discipline improved, enhancement in the effectiveness of HR functions in the organization, improved productivity, improved quality , improved efficiency , increase in organizational commitment shows extremely improvement . At the same time HR processes put in place, customer satisfaction, employee satisfaction , reduction in errors shows moderate improvement.

Table 4.27 Frequency distribution of respondents according to Changes in Organizational Development

Changes in Organizational Development	Not At All Improved	Slightly Improved	Somewhat Improved	Moderately Improved	Extremely Improved
System Discipline improved	0	2	12	83	172
%	0.0	0.7	4.4	30.7	63.7
HR Processes put in place	0	1	43	125	99
%	0.0	0.4	15.9	46.3	36.7
Customer satisfaction	0	1	6	133	129
%	0.0	0.4	2.2	49.3	47.8
Enhancement in effectiveness of HR function in the organization	0	2	11	122	134
%	0.0	0.7	4.1	45.2	49.6
Improved productivity	0	0	11	112	145
%	0.0	0.0	4.1	41.5	53.7
Improved efficiency	0	0	10	108	150
%	0.0	0.0	3.7	40.0	55.6
Improved quality	0	1	9	87	172
%	0.0	0.4	3.3	32.2	63.7

Changes in Organizational Development	Not At All Improved	Slightly Improved	Somewhat Improved	Moderately Improved	Extremely Improved
Employee satisfaction	0	0	32	157	80
%	0.0	0.0	11.9	58.1	29.6
Reduction in errors	0	2	14	164	89
%	0.0	0.7	5.2	60.7	33.0
Increase in organizational commitment	0	1	4	120	144
%	0.0	0.4	1.5	44.4	53.3

Graph 4.27 Frequency distribution of respondents according to Changes in Organizational Development



The researcher has judged the impact of OD interventions on 10 major parameters. It shows how OD intervention has made positive change in the organization. **Improvement in System discipline** indicates that, the processes or systems are standardized. It is always said that the organizations should be system based and not position/ person based. If the systems are standardized then any employee can work effectively without taking any ones help. **Enhancement in the effectiveness of HR functions** , it talks about how HR improves it functioning and provides all types of HR related support to every employee in the organization. **Improved productivity**, OD interventions always aims at improving the productivity and the **quality** in the organization. It helps to improve the organizational performance, brand image of the co. in the market. **Improved efficiency , reduction in errors** , may be the result or outcome of effectively implemented T & D,

process in the organization. **Employee satisfaction also gives positive indications.** If HR has streamlined all its functions, definitely it will be appreciated by the employees. It will ultimately result into increase in the satisfaction level of the employees. **Increase in organizational commitment,** it may be the impact of interventions related to PMS or T & D. Employees will be willing or motivated to work hard for the individual as well as organizational performance. Naturally employees will become more committed to the organization. The following statistical analysis shows significant impact on all parameters mentioned above.

4.2.1.5 Overall

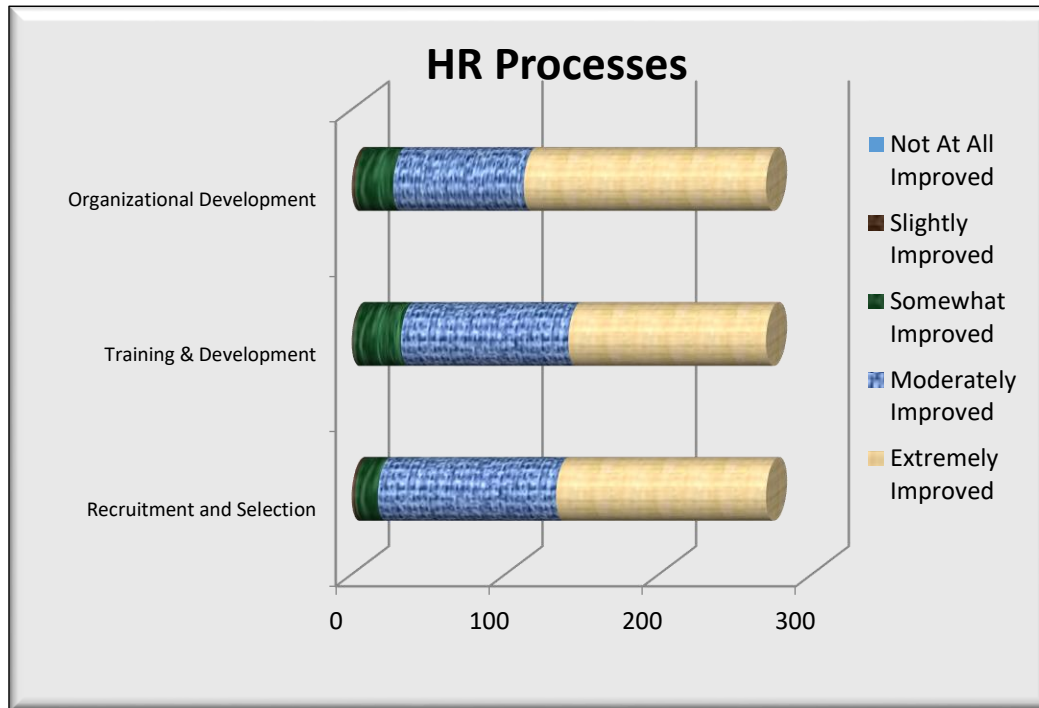
It is also important for the researcher to find out the overall impact if ISO certification on the selected HR practices like T & D, R & S and OD interventions. Also it was necessary to find out how ISO certification has benefited to the employees of the organization and the organization itself.

- Researcher observes from the following table that there is extremely improvement in selected HR practices after ISO certification. It shows the significant impact of the ISO certification on the HR practices.

Table 4.28 Frequency distribution of respondents according to improvement in selected HR processes after ISO certification.

HR Processes	Not At All Improved	Slightly Improved	Somewhat Improved	Moderately Improved	Extremely Improved
Recruitment and Selection	0	2	15	116	137
%	0.0	0.7	5.6	43.0	50.7
Training & Development	0	1	31	109	129
%	0.0	0.4	11.5	40.4	47.8
Organizational Development	0	2	25	85	158
%	0.0	0.7	9.3	31.5	58.5

Graph 4.28 Frequency distribution of respondents according to improvement in selected HR processes after ISO certification.



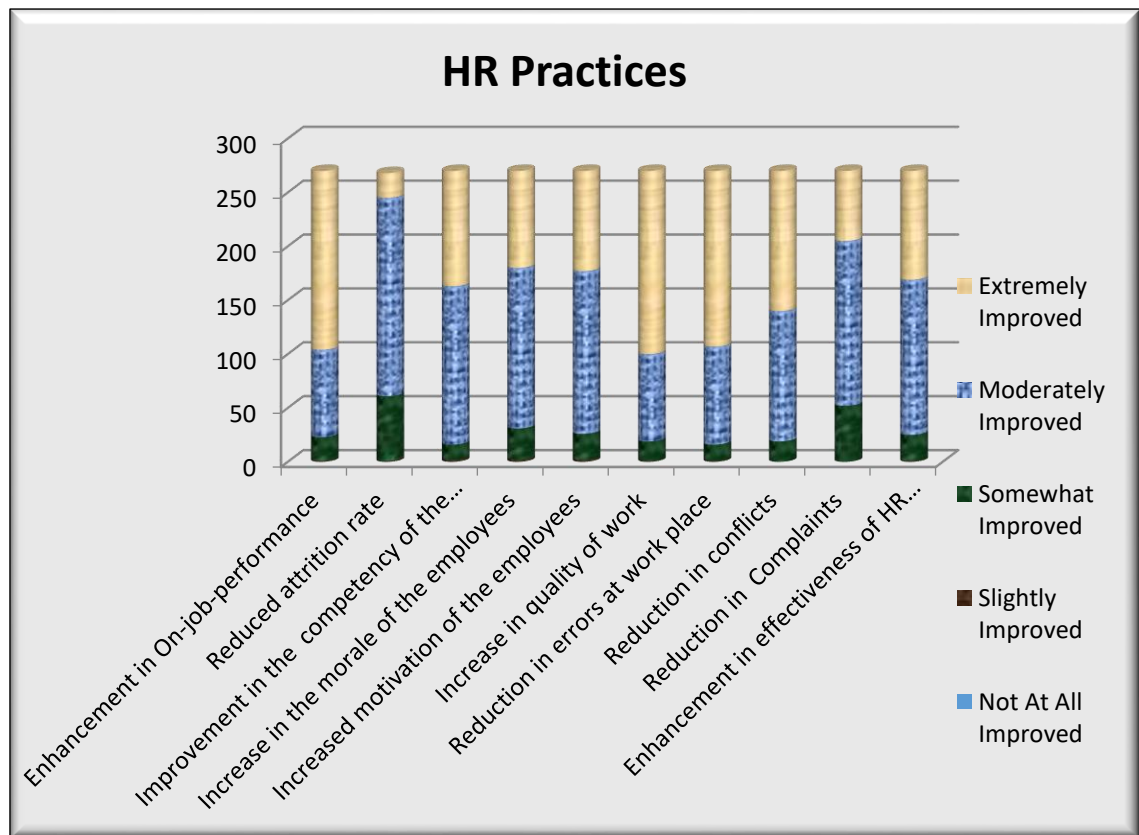
The researcher has observed that, the overall impact of the ISO certification on three, selected HR practices is very positive. There is remarkable improvement in R & S , T & D and OD interventions. There are very few responses which indicate slightly improvement and somewhat improvement in these selected HR practices. But no respondents claim that there is “not at all improvement “ in those HR practices.

- To judge the benefits received by the employees of the organizations, due to ISO certification, 10 parameters were used by the researcher in the questionnaire . Out of these 10 parameters, employees extremely benefited are, enhancement in on the job performance , increase in quality of works , reduction in errors at work place, and reduction in conflicts. Whereas moderately improvement in benefits is shown in reduction in attrition rate, improvement in the competency of employees, increase in the morale of the employees, increase in the motivation of employees, reduction in complaints, and enhancement in effectiveness of HR functions.

Table 4.29 Frequency distribution of respondents according to benefits received by the employees after ISO certifications

HR Practices	Not At All Improved	Slightly Improved	Somewhat Improved	Moderately Improved	Extremely Improved
Enhancement in On-job-performance	0	1	22	81	166
%	0.0	0.4	8.1	30.0	61.5
Reduced attrition rate	0	1	60	184	23
%	0.0	0.4	22.2	68.1	8.5
Improvement in the competency of the employees	0	2	14	147	107
%	0.0	0.7	5.2	54.4	39.6
Increase in the morale of the employees	0	2	29	149	90
%	0.0	0.7	10.7	55.2	33.3
Increased motivation of the employees	0	2	24	151	93
%	0.0	0.7	8.9	55.9	34.4
Increase in quality of work	0	1	18	81	170
%	0.0	0.4	6.7	30.0	63.0
Reduction in errors at work place	0	1	15	91	163
%	0.0	0.4	5.6	33.7	60.4
Reduction in conflicts	0	0	19	121	130
%	0.0	0.0	7.0	44.8	48.1
Reduction in Complaints	0	0	52	153	65
%	0.0	0.0	19.3	56.7	24.1
Enhancement in effectiveness of HR function in the organization	0	1	24	144	101
%	0.0	0.4	8.9	53.3	37.4

Graph 4.29 Frequency distribution of respondents according to benefits received by the employees after ISO certifications



The researcher was interested in knowing the impact of ISO certification on employees of the organization it means how the employees are benefited because of ISO certification. To assess the benefits received by the employees , researcher has used 10 different parameters. **Enhancement in on the job performance** – it indicates whether the quality of work of the employees increased due to ISO certification. This parameter indicates extremely improvement. It may be the impact of T & D process. **Reduced attrition rate** - It shows the no. of employees left the organization , during the period. In the analysis it shows moderate improvement. It means management has to take further steps for reducing the attrition rate in the organization. **Improvement in the competency of the employees** – It also indicates moderate improvement. Every organization expects to employ competent employees. The performance of the organization depends upon the performance / competency of the employees. Either R & S process should be improved or

T & D process should be improved to increase the competency of the employees. **Increase in the morale of the employees** – It shows the moderate improvement to the researcher. Increased morale boosts the confidence of the employees and motivates him to work hard for the organization. **Increased motivation of the employees** – Motivation of employees talks about the willingness or interest of the employee in his work. Motivated employees have positive approach towards the work. It shows the moderate improvement. **Increase in the quality of work** – It shows extremely improvement. It may be the impact of improvement in R & S , T & D processes or OD interventions. Performance of every employee is judged by the , quality of work of the employee. By providing adequate training , it can be ensured . **Reduction in errors at work place and reduction in conflicts** shows extremely improvement. When the quality of work is improved, naturally it will result in reduction of errors at work place. Conflicts talks about difference of opinions among the colleague/ employees. Conflicts may be concerned to the job/ task. Reduction in conflict shows , co operative or cordial relations among the colleague. **Reduction in complaints** shows moderate improvement. Here complaints are concerned with the employees complaints in the organization. If the employees are happy , motivated, definitely there will be less chance of complaints for the employees. The last parameter is **enhancement in effectiveness of HR functions** in the organization. It indicates moderate improvement. It means there is a further scope for the HR department to improve its working. To support the above findings , following statistical analysis shows significant results.

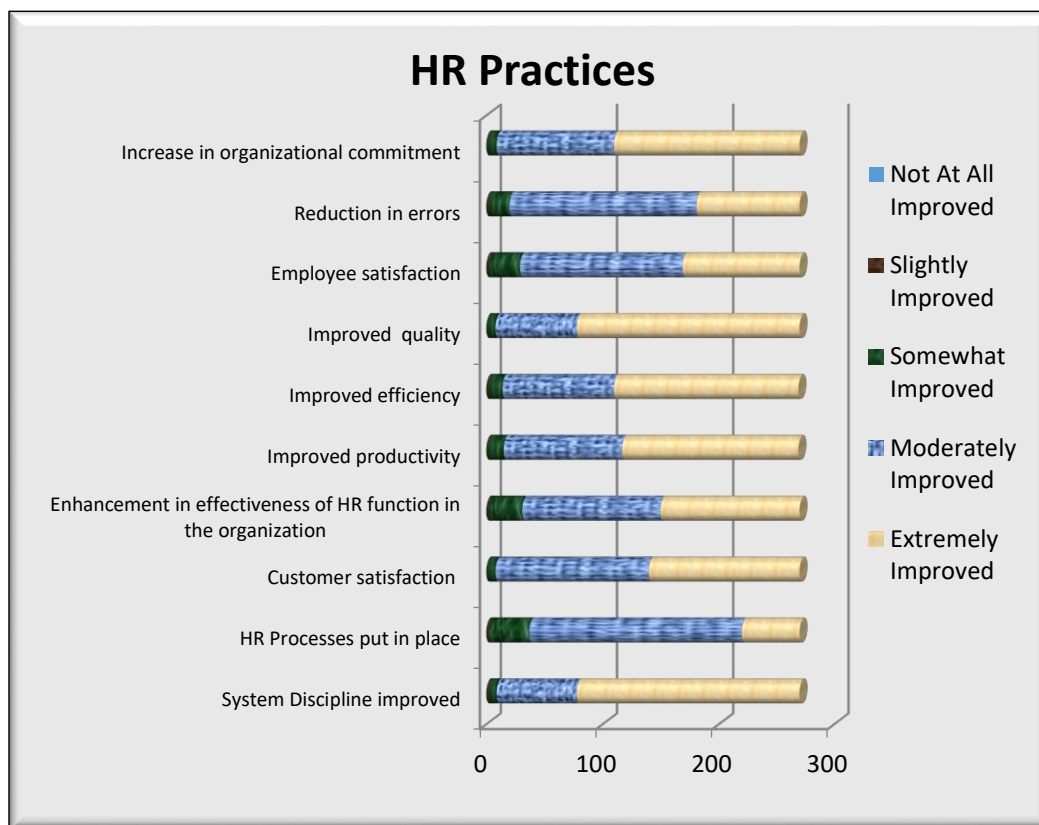
- To find out, the benefits received by the company because of ISO certification, 10 parameters were defined in the questionnaire by the researcher. The researcher has observed that out of these 10 parameters moderately improvement is shown in six parameters , those are system discipline improved, enhancement in effectiveness in HR functions, improved productivity , improved efficiency , improved quality and increase in organizational commitment . HR processes put in place, customer satisfaction, employee satisfaction & reduction in errors has shown moderate improvement.

Table 4.30 Frequency distribution of respondents according to benefits received by the organization after ISO Certification.

Benefits received in terms of	Not At All Improved	Slightly Improved	Somewhat Improved	Moderately Improved	Extremely Improved
System Discipline improved	0	2	7	69	192
%	0.0	0.7	2.6	25.6	71.1
HR Processes put in place	0	2	35	183	50
%	0.0	0.7	13.0	67.8	18.5
Customer satisfaction	0	1	7	132	130
%	0.0	0.4	2.6	48.9	48.1
Enhancement in effectiveness of HR function in the organization	0	2	29	119	120
%	0.0	0.7	10.7	44.1	44.4
Improved productivity	0	1	14	102	152
%	0.0	0.4	5.2	37.8	56.3
Improved efficiency	0	2	12	96	159
%	0.0	0.7	4.4	35.6	58.9
Improved quality	0	1	7	70	192
%	0.0	0.4	2.6	25.9	71.1
Employee satisfaction	0	2	27	140	101
Benefits received	Not At All	Slightly	Somewhat	Moderately	Extremely

in terms of	Improved	Improved	Improved	Improved	Improved
%	0.0	0.7	10.0	51.9	37.4
Reduction in errors	0	2	18	161	89
%	0.0	0.7	6.7	59.6	33.0
Increase in organizational commitment	0	1	8	101	160
%	0.0	0.4	3.0	37.4	59.3

Graph 4.30 Frequency distribution of respondents according to benefits received by the organization after ISO Certification



To understand the benefits received by the organization due to ISO certification, researcher has defined 10 parameters. **System discipline improved** – It indicates

extremely improvement. Systems talks about the standardization of the processes in the organization, which will make the working of the employees smooth. There will not be any type of ambiguity in the processes. Organizations will work on process base and not on the person base. **HR processes put in place** – It means standardization of the HR functions. It shows moderate improvement. So the researcher has understood that there is a scope for improvement to put the HR process in place. **Customer satisfaction** - It is the customer satisfaction for the product / services provided by the organization. In this research, it is automobile industry, so whether customers are happy with the vehicles manufactured by the co and after sales service. In the analysis, there is a slight difference between the moderate improvement and extremely improvement. But co can take efforts to give 100% customer satisfaction. **Enhancement in the effectiveness of HR functions in the organization** – with the slight difference it shows extremely improvement , it means HR is effectively working in the organization. **HR** department provides best services to its employees. **Improved productivity, improved efficiency, improved quality** – All these three parameters shows extremely improvement. It means improved selected HR practices, after ISO certification has shown a positive impact on all these three factors. These three factors are dependent – if the quality of work improves, it will help to improve the efficiency of the employees, which ultimately will result in improvement in the productivity of the employees. **Employee satisfaction** shows moderate improvement. It indicates that HR department has to work more to give 100% employee satisfaction. Satisfied employees of the organization are the asset of any organization. **Reduction in errors** - The researcher has observed that there is moderate improvement in reduction in errors. It seems there is no 100% reduction in errors. Measures needs to be taken to reduce the error rate to 0%. The last parameter talks about the **increase in the organizational commitment** – Here the researcher has observed that most of the respondents has given the reply “extremely improvement”. It shows that employees are committed to the organization. They are performing well and giving their 100% efforts to the organization. It may be the impact of successful implementation of OD interventions.

4.2.2 Questionnaire for Employees of various departments

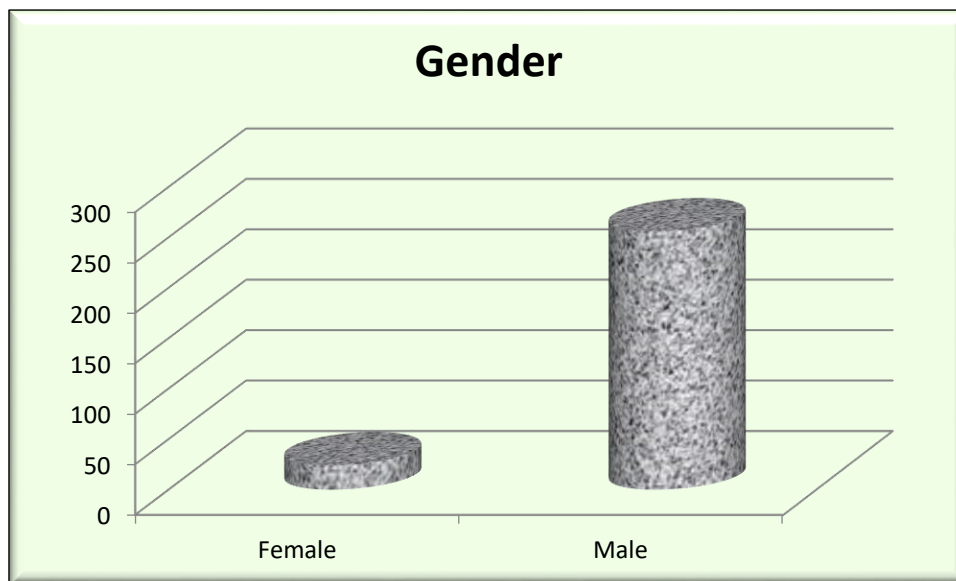
4.2.2.1 General Information

- The researcher has designed this questionnaire to take the responses/feedback of employees from various departments on impact of ISO certification on selected HR practices in the organization. The sample was selected on the basis that employees those who have observed pre / post ISO certification era in the organization. The following analysis shows that out of total 280 responses, 256 i.e. 91.4% respondents were male whereas 24 i.e. 8.6% respondents were female.

Table 4.31 Frequency distribution of respondents according to Gender

Gender	Frequency	Percent
Female	24	8.6
Male	256	91.4
Total	280	100.0

Graph 4.31 Frequency distribution of respondents according to Gender



The researcher has designed this questionnaire is for the employees of the various departments, those who have observed the pre & post ISO certification process in the

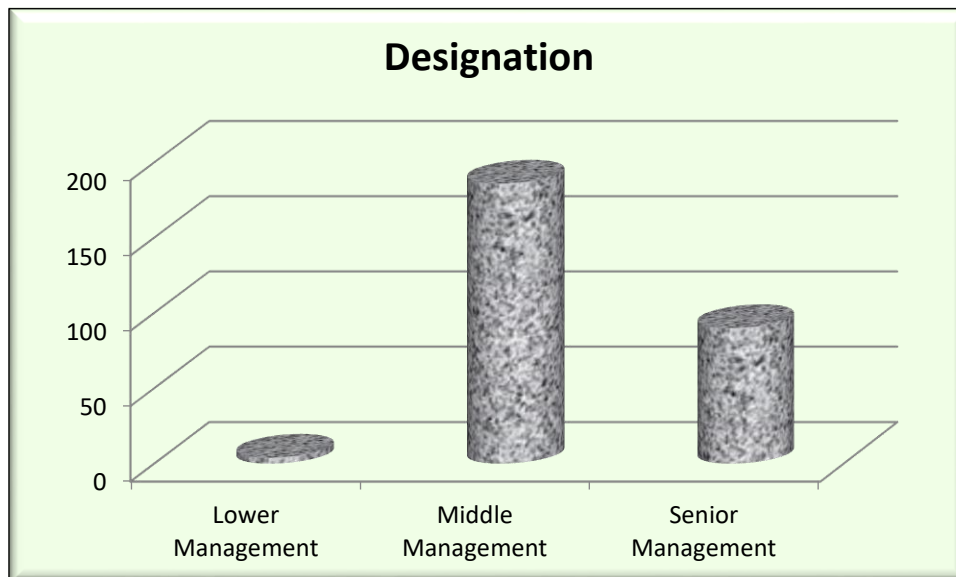
organization. So the respondents belongs to various departments like Purchase , finance , IT , production planning , production engineering , production CNC , process engineering, maintenance , marketing , materials, import department, industrial engineering etc.

In the analysis, on designation, the researcher has observed that the maximum respondents belongs to middle level management which is 66.4% , next is 32.1% senior management whereas only 1.4% respondents belongs to lower management.

Table 4.32 Frequency distribution of respondents according to Designation is given below along with its bar chart.

Designation	Frequency	Percent
Lower Management	4	1.4
Middle Management	186	66.4
Senior Management	90	32.1
Total	280	100.0

Graph 4.32 Frequency distribution of respondents according to Designation



While analyzing the responses on qualification , the researcher has observed that , out of total respondent almost 68.2% respondents possess post graduate degree 28.2% respondents are graduate ,3.6% respondents are Diploma holders, where are no respondent is doctorate.

Table 4.33 Frequency distribution of respondents according to Qualifications

Qualifications	Frequency	Percent
Diploma	10	3.6
Graduate	79	28.2
Post Graduate	191	68.2
Total	280	100.0

Graph 4.33 Frequency distribution of respondents according to Qualifications

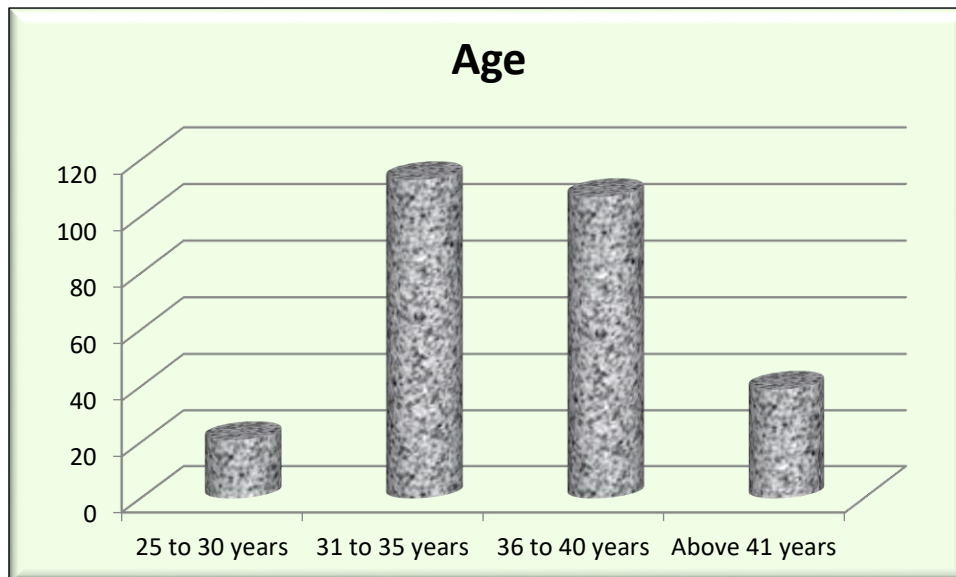


The researcher has observed that age of the maximum respondent is between 31 to 35 years i.e. 40.4%, where as only 7.5% are in the age range of 21 to 30 years.

Table 4.34 Frequency distribution of respondents according to Age

Age	Frequency	Percent
25 to 30 years	21	7.5
31 to 35 years	113	40.4
36 to 40 years	107	38.2
Above 41 years	39	13.9
Total	280	100.0

Graph 4.34 Frequency distribution of respondents according to Age



The researcher observes that the analysis on working experience in the present organization exhibits that, most of the respondents have 5 to 20 years of experience. Out of 100% , 36.8% respondents have 11 to 15 years experience, 29.6% have 5 to 10 years, 24.3% respondents have 16 to 20 years of experience, and 7.9% respondents have more than 20 years of experience. It shows that almost 98% respondents are senior employees in the organization. Only 1.4% respondents have less than 5 years of experience.

Table 4.35 Frequency distribution of respondents according to working experience in organization.

Working experience in this organization	Frequency	Percent
Less Than 5 Years	4	1.4
5 to 10 years	83	29.6
11 to 15 years	103	36.8
16 to 20 years	68	24.3
More than 20 years	22	7.9
Total	280	100.0

Graph 4.35 Frequency distribution of respondents according working experience in Organization.

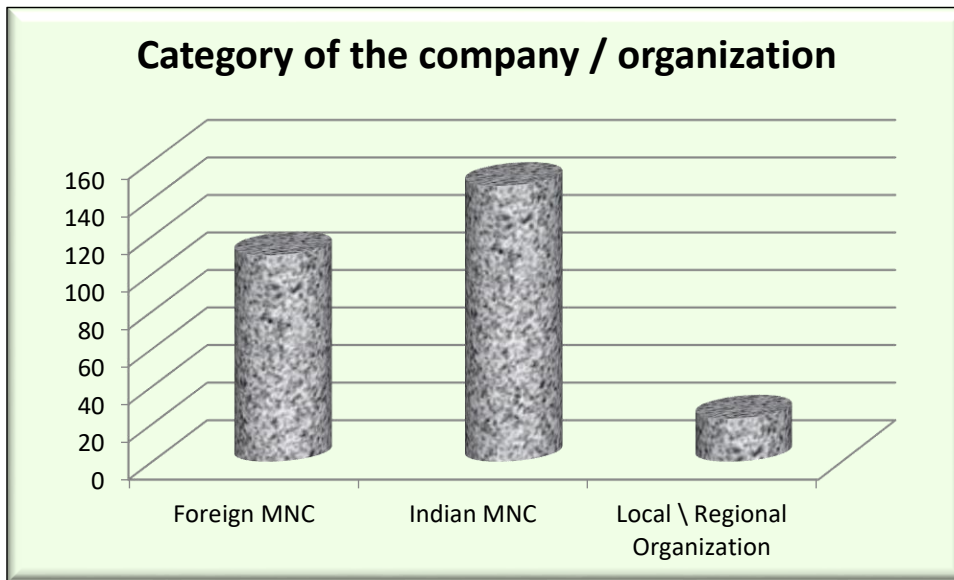


For this research only large scale industries were considered by the researcher. The researcher observes that out of total respondents 52.5% respondents belong to Indian MNC, 39.3% respondents belongs to foreign MNC whereas 8.2% belongs to Local / Regional organizations.

Table 4.36 Frequency distribution of respondents according to Category of the company

Category of the company / organization	Frequency	Percent
Foreign MNC	110	39.3
Indian MNC	147	52.5
Local \ Regional Organization	23	8.2
Total	280	100.0

Graph 4.36Frequency distribution of respondents according to Category of the company

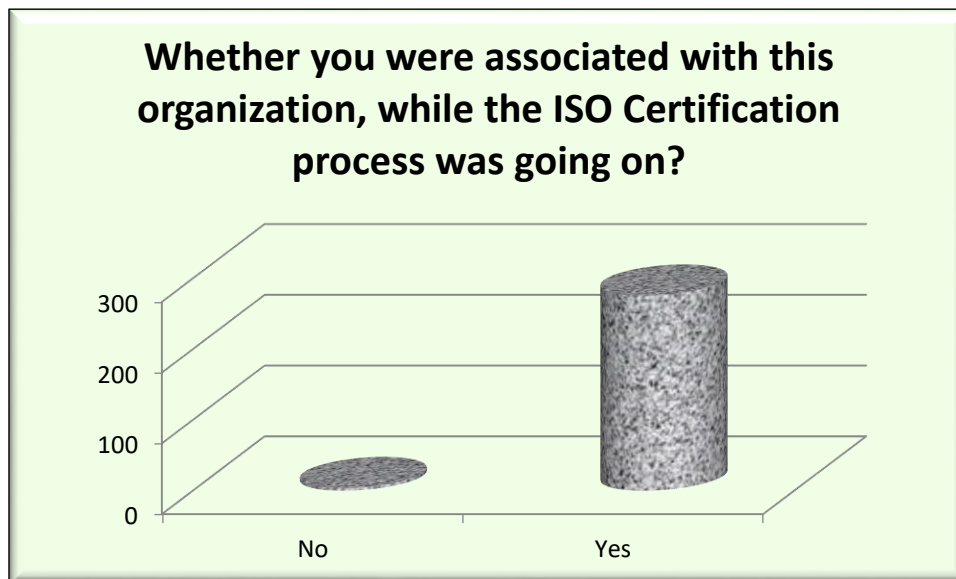


The respondents of this questionnaire were employees who have observed the pre/ post ISO certification era in the organization. The following analysis gives the knowledge to the researcher that, almost 98.6% respondents were associated with their organization while the ISO certification process was going on.

Table 4.37The frequency distribution of respondents according employees association with the organization, while the ISO Certification process was going on.

Whether you were associated with this organization, while the ISO Certification process was going on?	Frequency	Percent
No	4	1.4
Yes	276	98.6
Total	280	100.0

Graph 4.37Frequency distribution of respondents according employees association with the organization, while the ISO Certification process was going on.



The researcher designed this questionnaire to know the role of the respondent in the process of ISO certification in the organization. It was observed by the researcher, that the responses were varied, the common roles played by the respondents were ISO auditor, documentation team member, taking follow up of the documentation as per ISO standard internal audit taken. Head PDC department and responsible for documentation of the department, Internal auditor, member ISO documentation team, involved in

preparation of procedure & documentation as per the ISO requirement, responsible for documentation of purchase department, team leader ISO audit team,

4.2.2.2 T & D , R & S , OD Interventions and Overall Impact

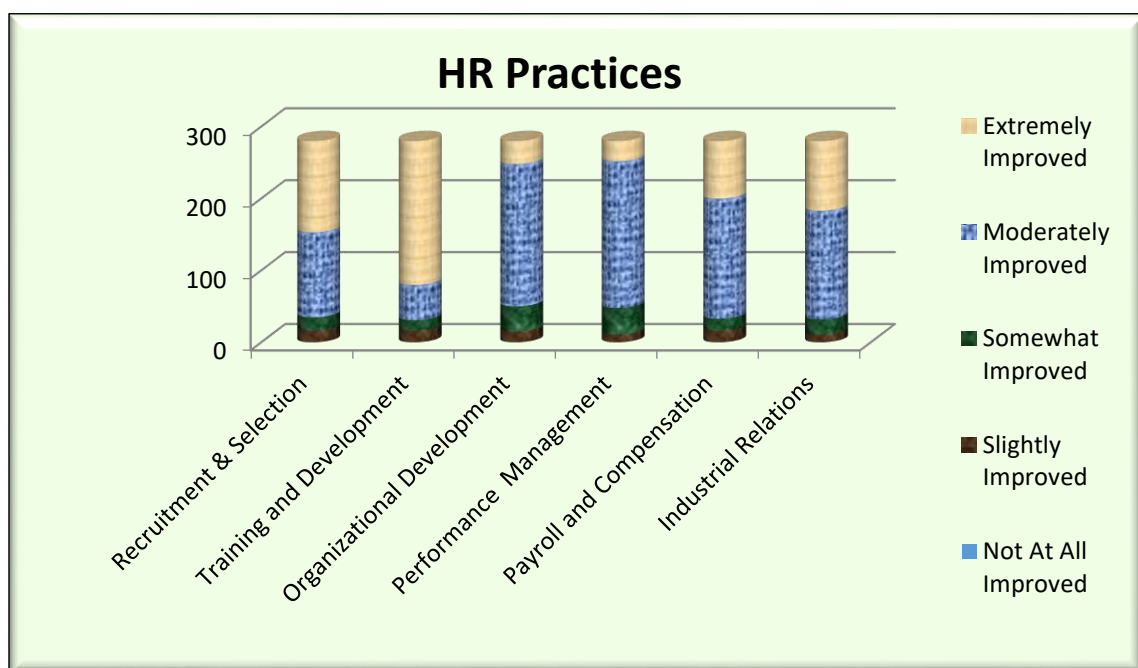
The researcher has collected the responses from the respondents about how they find the improvement in major six areas of T&D , R& S and OD Interventions after ISO certification. Maximum respondents are happy/ positive with the improvement in T&D , the percentage is 71.4 % . Improvement in R& S is also extremely improved which is 45.4%. Whereas there is a moderate improvement in OD , PM , Payroll & compensation & Industrial relations. Overall, the researcher has observed significant impact on the selected HR practices after ISO certification.

Table 4.38 Frequency distribution of respondents according to improvement in following HR Practices

HR Practices	Not At All Improved	Slightly Improved	Somewhat Improved	Moderately Improved	Extremely Improved
Recruitment & Selection	0	16	19	118	127
%	0.0	5.7	6.8	42.1	45.4
Training and Development	0	16	15	49	200
%	0.0	5.7	5.4	17.5	71.4
Organizational Development	0	15	35	198	32
%	0.0	5.4	12.5	70.7	11.4
Performance Management	0	11	37	204	28
%	0.0	3.9	13.2	72.9	10.0
Payroll and Compensation	0	16	17	167	80

HR Practices	Not At All Improved	Slightly Improved	Somewhat Improved	Moderately Improved	Extremely Improved
%	0.0	5.7	6.1	59.6	28.6
Industrial Relations	0	11	21	151	97
%	0.0	3.9	7.5	53.9	34.6

Graph 4.38Frequency distribution of respondents according to improvement in selected HR Practices



The maximum response is for 'Training and Development'; then 'Industrial Relations'; then 'Payroll and Compensation'; then 'Recruitment & Selection'; then 'Performance Management'; lastly 'Organizational Development'

- To study the selected HR practices in detail, various parameters under those three practices were considered in the questionnaire, by the researcher, to observe the impact of ISO certification. Responses about, almost 26 parameter were asked in the questionnaire. Most of the respondents have selected option three, which indicates somewhat improvement in pre ISO era. On the request of one company in this

questionnaire N.A option is added. So in pre & post ISO certification responses , even we find few responses under N.A. category.

Table 4.39 Frequency distribution of respondents according to improvement in various areas of selected HR Practices in pre ISO

HR Practices	Pre ISO					
	Not At All Improved	Slightly Improved	Somewhat Improved	Moderately Improved	Extremely Improved	N.A.
Planning the recruitment & selection process	2	23	162	81	7	5
%	0.7	8.2	57.9	28.9	2.5	1.8
Selection process: Interviewing and additional assessment	3	31	201	36	4	5
%	1.1	11.1	71.8	12.9	1.4	1.8
Making a selection decision	1	32	202	33	7	5
%	0.4	11.4	72.1	11.8	2.5	1.8
Induction / orientation	4	108	140	21	2	5
%	1.4	38.6	50.0	7.5	0.7	1.8
Attrition rate has gone down	3	112	142	15	2	6
%	1.1	40.0	50.7	5.4	0.7	2.1
Offer acceptance rate	2	109	142	16	3	8

HR Practices	Pre ISO					
	Not At All Improved	Slightly Improved	Somewhat Improved	Moderately Improved	Extremely Improved	N.A.
Developing/revising position descriptions	1	90	153	11	5	20
%	0.4	32.1	54.6	3.9	1.8	7.1
Interviews per job offer	1	88	151	16	4	20
%	0.4	31.4	53.9	5.7	1.4	7.1
Making Recruitment and Selection as smooth function	2	17	168	82	6	5
%	0.7	6.1	60.0	29.3	2.1	1.8
Identification of Training needs (TD1)	2	18	173	77	4	6
%	0.7	6.4	61.8	27.5	1.4	2.1
Design of Training Programme	3	19	175	70	8	5
%	1.1	6.8	62.5	25.0	2.9	1.8
Implementation Of Training Programme	2	15	162	89	6	6
%	0.7	5.4	57.9	31.8	2.1	2.1
Evaluation of Training Programme	2	20	164	83	5	6

HR Practices	Pre ISO					
	Not At All Improved	Slightly Improved	Somewhat Improved	Moderately Improved	Extremely Improved	N.A.
Increase in team work	1	42	196	30	5	6
%	0.4	15.0	70.0	10.7	1.8	2.1
Increase in the morale of the employees	1	62	185	23	4	5
%	0.4	22.1	66.1	8.2	1.4	1.8
Increase in productivity	2	24	185	55	8	6
%	0.7	8.6	66.1	19.6	2.9	2.1
Increase in quality of work	1	17	165	86	4	7
%	0.4	6.1	58.9	30.7	1.4	2.5
Reduction in errors at work place	1	51	174	43	6	5
%	0.4	18.2	62.1	15.4	2.1	1.8
Reduction in conflicts	4	97	152	18	4	5
%	1.4	34.6	54.3	6.4	1.4	1.8
Reduction in Complaints	2	78	161	28	4	7
%	0.7	27.9	57.5	10.0	1.4	2.5
Career Planning	4	101	151	12	7	5
%	1.4	36.1	53.9	4.3	2.5	1.8

HR Practices	Pre ISO					
	Not At All Improved	Slightly Improved	Somewhat Improved	Moderately Improved	Extremely Improved	N.A.
%	1.1	33.9	56.1	5.7	1.4	1.8
Succession Planning	3	109	146	10	6	6
%	1.1	38.9	52.1	3.6	2.1	2.1
Training and development	2	29	147	92	3	7
%	0.7	10.4	52.5	32.9	1.1	2.5
Industrial Safety	4	50	185	28	7	6
%	1.4	17.9	66.1	10.0	2.5	2.1
Housekeeping Initiative	3	86	168	11	7	5
%	1.1	30.7	60.0	3.9	2.5	1.8

The researcher has observed that after ISO certification, out of 26 parameters 12 parameters shows extremely improvement in respective HR practices. Most of the parameters are related to T&D & few of them are related to OD Interventions. . It indicates that respondents observe more improvement in T & D activity of the organization. Rest 14 parameters out of 26 , denotes moderately improvement . Maximum parameters in this belong to R& S & few from OD interventions. But definitely the analysis shows that the ISO certification has significant impact on the HR practices in the organization.

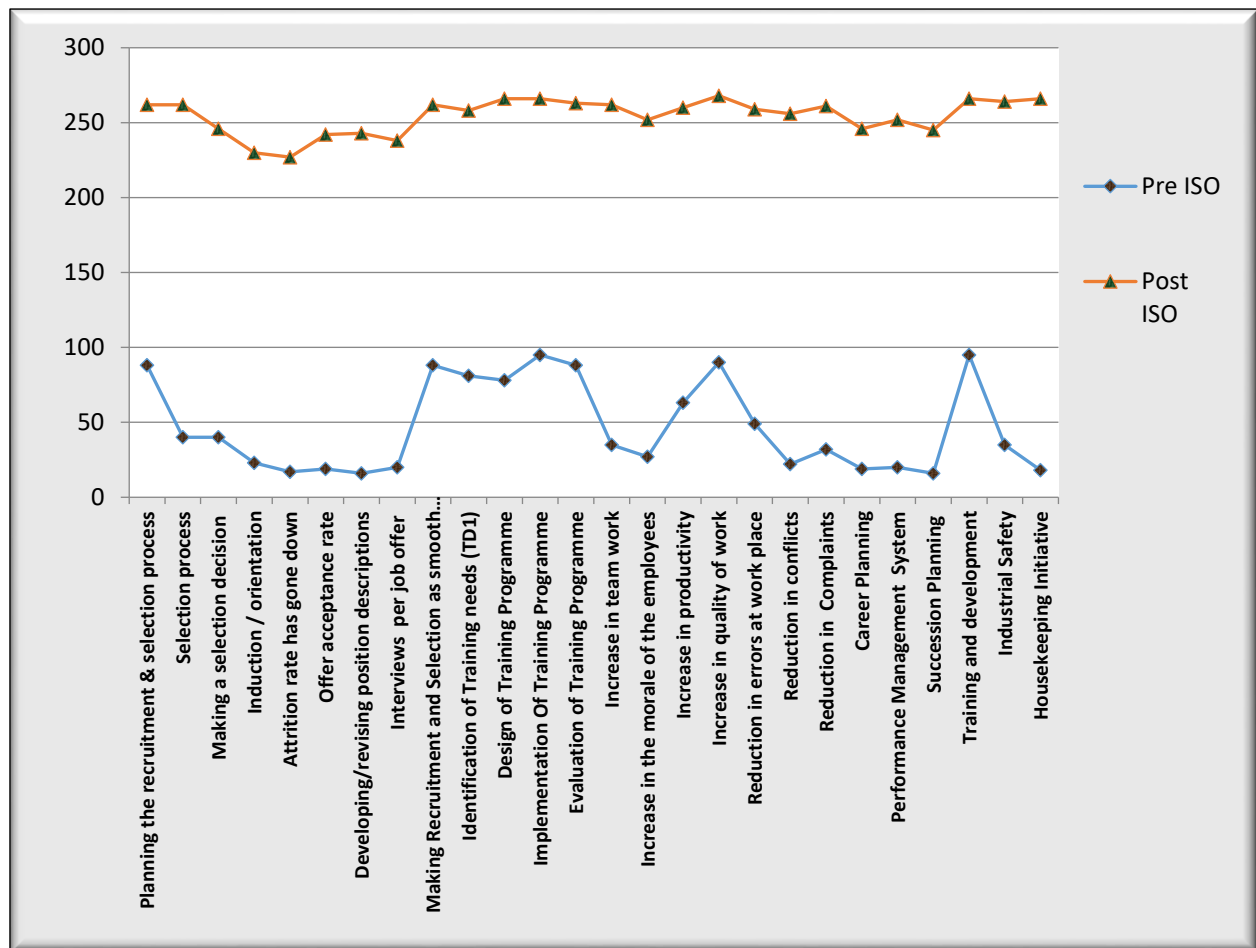
Table 4.40Frequency distribution of respondents according to improvement shown in selected HR Practices post ISO

HR Practices	Post ISO					
	Not At All Improved	Slightly Improved	Somewhat Improved	Moderately Improved	Extremely Improved	N.A.
Planning the recruitment & selection process	0	4	14	64	198	0
%	0.0	1.4	5.0	22.9	70.7	0.0
Selection process: Interviewing and additional assessment	0	3	15	152	110	0
%	0.0	1.1	5.4	54.3	39.3	0.0
Making a selection decision	2	2	30	126	120	0
%	0.7	0.7	10.7	45.0	42.9	0.0
Induction / orientation	0	2	48	176	54	0
%	0.0	0.7	17.1	62.9	19.3	0.0
Attrition rate has gone down	0	6	46	191	36	1
%	0.0	2.1	16.4	68.2	12.9	0.4
Offer acceptance rate	0	2	33	201	41	3
%	0.0	0.7	11.8	71.8	14.6	1.1
Developing/revising position descriptions	0	3	24	174	69	10
%	0.0	1.1	8.6	62.1	24.6	3.6
Interviews per job offer	0	1	32	167	71	9
%	0.0	0.4	11.4	59.6	25.4	3.2
Making Recruitment and Selection as smooth function	0	1	17	71	191	0
%	0.0	0.4	6.1	25.4	68.2	0.0

HR Practices	Post ISO					
	Not At All Improved	Slightly Improved	Somewhat Improved	Moderately Improved	Extremely Improved	N.A.
%	0.4	1.1	5.7	17.5	74.6	0.7
Design of Training Programme	1	5	7	52	214	1
%	0.4	1.8	2.5	18.6	76.4	0.4
Implementation Of Training Programme	0	4	8	53	213	2
%	0.0	1.4	2.9	18.9	76.1	0.7
Evaluation of Training Programme	0	4	11	58	205	2
%	0.0	1.4	3.9	20.7	73.2	0.7
Increase in team work	0	0	17	110	152	1
%	0.0	0.0	6.1	39.3	54.3	0.4
Increase in the morale of the employees	0	1	26	159	93	1
%	0.0	0.4	9.3	56.8	33.2	0.4
Increase in productivity	0	0	18	61	199	2
%	0.0	0.0	6.4	21.8	71.1	0.7
Increase in quality of work	0	0	9	46	222	3
%	0.0	0.0	3.2	16.4	79.3	1.1
Reduction in errors at work place	0	0	18	112	147	3
%	0.0	0.0	6.4	40.0	52.5	1.1
Reduction in conflicts	0	1	21	214	42	2
%	0.0	0.4	7.5	76.4	15.0	0.7
Reduction in Complaints	0	1	17	145	116	1

HR Practices	Post ISO					
	Not At All Improved	Slightly Improved	Somewhat Improved	Moderately Improved	Extremely Improved	N.A.
Career Planning	0	1	30	143	103	3
%	0.0	0.4	10.7	51.1	36.8	1.1
Performance Management System	1	1	23	149	103	3
%	0.4	0.4	8.2	53.2	36.8	1.1
Succession Planning	0	3	29	135	110	3
%	0.0	1.1	10.4	48.2	39.3	1.1
Training and development	0	3	9	40	226	2
%	0.0	1.1	3.2	14.3	80.7	0.7
Industrial Safety	1	1	12	101	163	2
%	0.4	0.4	4.3	36.1	58.2	0.7
Housekeeping Initiative	0	0	13	144	122	1
%	0.0	0.0	4.6	51.4	43.6	0.4

Graph 4.39 & 4.40 Frequency distribution of respondents according to improvement in various areas of selected HR Practices in pre ISO and post ISO



Researcher defined 26 parameters related to the selected HR practices in the questionnaire. These parameters are nothing but the efforts taken by the researcher to study the impact of ISO certification from all angles of the selected HR practices.

Parameters related to R & S – To understand the impact of ISO on R & S HR practice, various parameters were used by the researcher. The impact of ISO on parameters were compared in pre ISO & post ISO era.

Planning the recruitment & selection process - Every organization has its own policy of R & S. HR department is responsible for planning the entire R & S process in the organization. The researcher has observed that , pre ISO era shows somewhat improvement in the planning process which is just average. But at the same time after post ISO, it shows extremely improvement.

Selection process – interviewing and additional assessment – Selection process is important, because final selection of the employee is done in this process. For most effective selection process, various techniques are used by the HR department like interviews conducted by various panels, some additional assessments are also used by the co. The researcher has observed that in pre ISO phase selection process, was rated at somewhat improvement, again average rating, but after ISO, it has shown the moderate improvement. It means there is positive impact, but still there is a scope for improvement.

Making selection decision – It means taking the final decision about the candidate selection. The researcher has observed that , it shows average i.e. somewhat improvement prior to ISO and shows moderate improvement after ISO implementation. Still some scope for the improvement in this parameter.

Induction/ Orientation - Induction is the process / training program generally conducted for newly joined employees. When the employees joins organization , he is not aware of the companies policies, organizational structure , day to day working , history or background of the co. At that time induction programs plays a important role. It makes the newly joined employee comfortable. Utmost care needs to be taken while designing the induction programs Pre ISO era exhibits somewhat i.e. average rating by the respondents , post ISO shows moderate improvement.

Attrition rate has gone down – Attrition rate indicates whether employees prefer /likes to work in the organization? How many employees leave the organization in a year? High attrition rate is definitely, not good from the co. point of view. Prior to ISO , it is observed by the researcher that the attrition rate is high , i.e. rating is somewhat improved as compared to post ISO . it moderately improved in post ISO phase. Of course it shows positive indication on this parameter.

Offer acceptance rate - After the selection of candidate, offer letter is issued to the candidate by the co. If maximum candidates accept it, then that is a good sign for the co. It indicates that candidates are interested in working in your organization. The researcher has observed that Pre ISO status is some what improvement i.e. average . But post ISO status shows moderate improvement in offer acceptance letter by the candidates.

Developing /revising position descriptions- The researcher has observed that , pre ISO , it shows somewhat improvement. After ISO the impact on developing/ revising position descriptions goes to moderate improvement.

Interviews per job offer - It is the observation of the researcher that , the rating of interviews per job offer is somewhat improved or average , prior to ISO certification. It reached to the level of moderate improvement after ISO certification. It indicates positive impact on the parameter.

Making recruitment & selection as smooth process – It indicates whether R & S process followed by the organization is smooth or difficult/ time taking. The researcher has observed that the , prior to ISO it was somewhat improved but after ISO it shows very positive impact and that is extremely improvement.

Parameters related to T & D - Here , as stated earlier T & D activity is restricted to the training programmes related to ISO certification. The ISO 10015 version gives specific guidelines for the ISO training programmes , to make the employees competent and confident about the ISO. Following parameters were assessed under the T & D activity of the organization.

Identification of training needs – It is the first step , before any training programmes offered to the employees. Training need identification is the scientific process , which makes it very clear , what type of training is required / expected by the employees. The researcher has observed that , prior to ISO certification the responses were more towards the somewhat improvement , but after ISO , it shows remarkable improvement , and it goes to extremely improvement stage.

Design of training program – After training need identification, the picture about training requirements/ expectations becomes clear. Accordingly the training programmes are designed. The researcher has observed that, prior to ISO , the grading was somewhat improved , but after ISO , it goes to extremely improvement.

Implementation of Training programmes - The researcher has observed that the training programmes were not effectively implemented prior to ISO , as it shows somewhat improvement. But it has shown drastic improvement after ISO certification, which goes to extremely improvement level.

Evaluation of training programme - To understand the impact of the ISO training programmes , generally the feedback or responses of the candidates , those who have undergone the training program , are considered by the management , to understand the effectiveness of the training programmes. Generally feedback mechanism is used for the evaluation. At the various stages of training programmes feedbacks are taken , to evaluate the impact of the training program. It is observed by the researcher that, prior to ISO , it was somewhat improvement , but which goes to extremely improvement after ISO Certification.

Following few parameters shows direct or indirect impact of training programmes -

Increase in team work - In the organization no one can work in isolation. Everybody has to work in team of people. There has to be unity among the team , so that the given task will be successfully completed. It is the observation of the researcher that that, prior to ISO certification the rating was somewhat improved , but it shows extremely improvement after ISO certification.

Increase in morale of the employees – The researcher has observed that , prior to ISO the rating was somewhat improved , after ISO it goes to moderate improvement. It indicates there is further scope for the improvement to increase the morale of the employees.

Increase in the productivity - After all , organization takes all efforts to increase the productivity , increase the quality , reduction in errors , reduction in complaints , reduction in conflicts. The researcher has observed that all above mentioned parameters shows somewhat improvement before ISO certification. it indicates average rating But after ISO certification

Increase in productivity , increase in quality of work, reduction in errors at work place, indicates extremely improvement. **Reduction in complaints, reduction in conflicts** shows moderate improvement. There is a scope for the improvement in reduction in complaints and reduction in errors.

Parameters related to OD interventions – Change is the only constant this in any business. Changes are incorporated to improve the performance of the organizations. OD Interventions talks about it.

Career planning – Every employee working in the organization hopes for the better career. Management / HR should have a systematic plan to support this aspiration of the employee. It

gives many benefits to the employee as well as to the organization. The researcher has observed that, prior to ISO , many respondents gave the response somewhat improvement, after ISO it shows moderate improvement.

PMS – Performance Management System is most important function of HR. It is said that, there is no 100% full proof PMS in the world. Every PMS method has some loopholes. It is the most sensitivity issue for the employees. The researcher has observed that , prior to ISO certification , it shows somewhat improvement . After ISO, it shows moderate improvement.

Succession planning – It is the duty of the management to create next layer of competent employees for the better future of the organization. In case of retirement , promotion , any emergency , it is possible that the vacancies are created and the need arises that immediately someone , who is capable should take a charge of that position. So that organization will not suffer. In the present research , the researcher has observed that , the process of succession planning gained the rating of somewhat improvement prior to ISO. But after ISO certification the responses shows .moderate improvement.

T & D - The researcher has observed that prior to ISO the T & D has shown the rating as somewhat improvement , After ISO certification , it shows remarkable improvement and the responses shows extremely improvement.

Industrial safety – While collecting the data through questionnaire, informally many respondents complained about the industrial safety and the house keeping initiatives taken in the organization. In the responses collected by the researcher, it was observed that the prior to ISO , the rating was somewhat improved. But after ISO it shows great impact on industrial safety, and it goes up to extremely improvement.

Housekeeping initiatives – As said earlier , by the many respondents , it was also ignored area by the organizations. The researcher has observed that prior to ISO it shows somewhat improvement. But after ISO , it shows moderate improvement in the house keeping initiatives of the organization

The graph clearly shows that there is improvement for each HR practices drastically after ISO.

From the above observation, the researcher would like to conclude that, while comparing the most significant 26 parameters related to the three selected HR practices, prior to ISO , many parameters falls in the rating of somewhat improvement . But it shows remarkable improvement after the ISO certification. It indicates the positive impact on R & S , T & D and OD Interventions

- To understand the benefits received by the employees of the co, after ISO certification , this question was designed by the researcher . As per the responses received by the respondents, it is observed by the researcher that, definitely employees of the co. are benefited. Out of 10 parameters , 5 parameters i.e. enhancement in on the job performance , improvement in the competency of the employees, increase in quality of work , reduction in errors at work place and enhancement in effectiveness of HR functions in the organization , shows extremely improvement . It means employees are most benefited in these parameters. Rest of the 5 parameters like reduction in attrition rate , increase in morale of the employees, increase in the motivation of the employees, reduction in conflicts , reduction in complaints , analysis shows moderate improvement. The analysis shows that , definitely employees are benefited because of the ISO Certification.

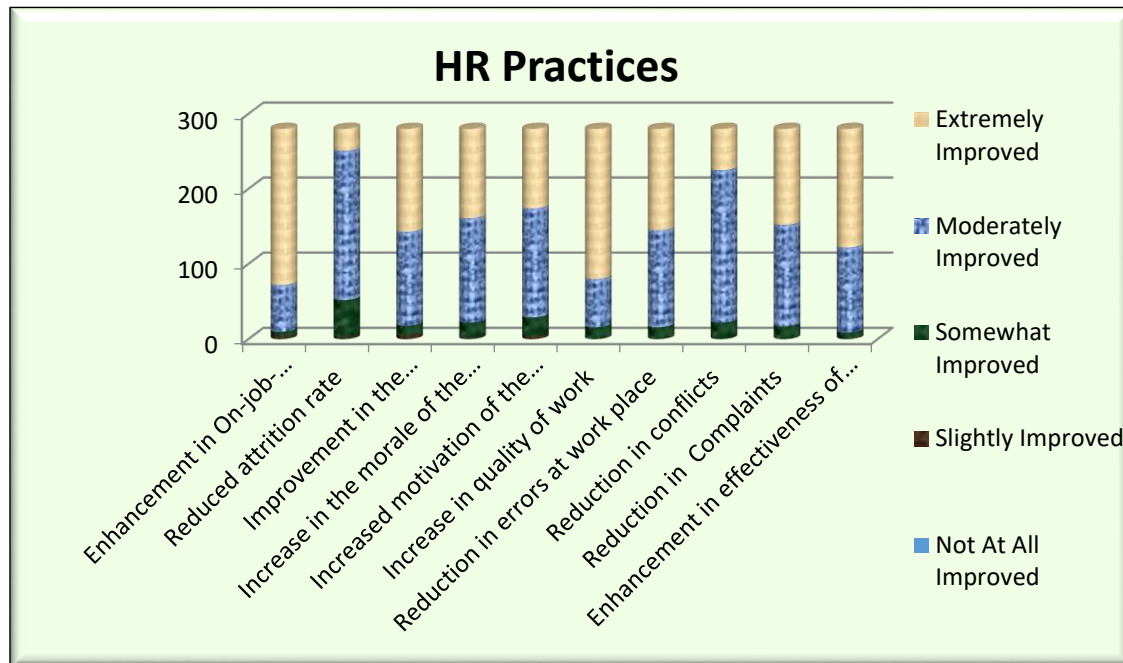
Table 4.41 Frequency distribution of respondents according to the benefits received by the employees after ISO certification

Benefits Received	Not At All Improved	Slightly Improved	Somewhat Improved	Moderately Improved	Extremely Improved
Enhancement in On-job-performance	0	4	6	62	208
%	0.0	1.4	2.1	22.1	74.3
Reduced attrition rate	0	3	49	199	29

Benefits Received	Not At All Improved	Slightly Improved	Somewhat Improved	Moderately Improved	Extremely Improved
%	0.0	1.1	17.5	71.1	10.4
Improvement in the competency of the employees	0	5	13	125	137
%	0.0	1.8	4.6	44.6	48.9
Increase in the morale of the employees	0	2	20	139	119
%	0.0	0.7	7.1	49.6	42.5
Increased motivation of the employees	0	4	25	145	106
%	0.0	1.4	8.9	51.8	37.9
Increase in quality of work	0	0	16	64	200
%	0.0	0.0	5.7	22.9	71.4
Reduction in errors at work place	0	1	15	129	135
%	0.0	0.4	5.4	46.1	48.2
Reduction in conflicts	0	0	22	203	55
%	0.0	0.0	7.9	72.5	19.6
Reduction in Complaints	0	0	17	135	128

Benefits Received	Not At All Improved	Slightly Improved	Somewhat Improved	Moderately Improved	Extremely Improved
%	0.0	0.0	6.1	48.2	45.7
Enhancement in effectiveness of HR function in the organization	0	1	8	113	158
%	0.0	0.4	2.9	40.4	56.4

Graph 4.41 Frequency distribution of respondents according to the benefits received by the employees after ISO certification



- It is also important to know, what benefits are derived by the employees, due to ISO certification. These benefits may be direct or indirect benefits. The researcher has considered 10 parameters to assess the impact / benefits received to the employees.

Enhancement in on the job performance – It is may be the impact of T & D or OD interventions, implemented in the organization, has resulted into increase in the performance of the employees The responses shows extremely improvement in this parameter.

Reduced attrition rate – The researcher has observed that there is moderate improvement in the reduction of attrition rate. Efforts may be taken by the management to reduce it further.

Improved in the competency of the employees – The researcher has observed that , it may be because of the T & d efforts taken by management. It shows remarkable improvement i.e. extremely improvement.

Increase in the morale of the employees – It is the observation of the researcher , that there is moderate improvement in the morale of the employees.

Increased motivation of the employees – The researcher has observed , that the employees are more motivated. The motivation level has been reached to the moderate improvement.

Increase in the quality of work – The quality of work is increased up to the standard of extremely improvement. According to the researcher is a very positive impact and very important benefit received by the employees of the organization.

Reduction in the errors at work place – It is observed by the researcher that, due to increased competency level , increased quality of work , is resulted into reduction of errors at work place by the employees. It is the sign of improved performance of the employees.

Reduction in Conflict – The researcher has observed that , there is a cohesiveness among the employees and there is reduction of conflicts among them.

Reduction in complaints – Here to the researcher , the complaints means any type of complaints i.e. internal as well as external, even it includes external complaints like complaints by the customer. The analysis shows that the complaints are reduced because of ISO certification .

Enhancement in the effectiveness of HR functions in the organization – The researcher has observed that, due to ISO certification , there is a improvement in the

selected HR practices implemented in the organization. This has shown the impact on enhancement in the effectiveness of HR functions in the organization.

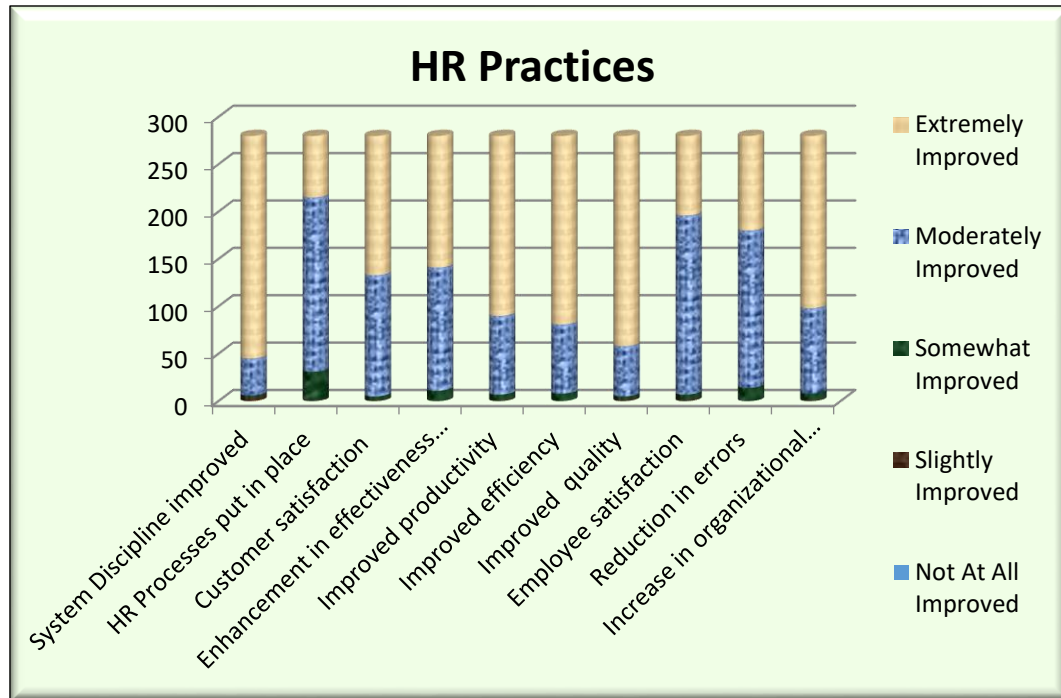
- It is observed by the researcher from the following analysis that companies are most benefited because of the ISO certification. Out of 10 parameters, 7 parameters, i.e. more than 50% parameters show extremely improvement. Those parameters are improvement in system discipline, customer satisfaction, and enhancement in effectiveness of HR functions in the organization, improved productivity, improved efficiency, improved quality and increase in organizational commitment. Whereas three parameters, HR processes put in place, employee satisfaction and reduction in errors shows moderate improvement.

Table 4.42 Frequency distribution of respondents according to benefits received by the organization after ISO Certification is given below along with its bar chart.

Benefits Received	Not At All Improved	Slightly Improved	Somewhat Improved	Moderately Improved	Extremely Improved
System Discipline improved	0	4	2	39	235
%	0.0	1.4	0.7	13.9	83.9
HR Processes put in place	0	1	30	184	65
%	0.0	0.4	10.7	65.7	23.2
Customer satisfaction	0	1	4	128	147
%	0.0	0.4	1.4	45.7	52.5
Enhancement in effectiveness of HR function in the organization	0	0	11	130	139
%	0.0	0.0	3.9	46.4	49.6
Benefits Received	Not At	Slightly	Somewhat	Moderately	Extremely

	All Improved	Improved	Improved	Improved	Improved
Improved productivity	0	1	6	83	190
%	0.0	0.4	2.1	29.6	67.9
Improved efficiency	0	0	8	73	199
%	0.0	0.0	2.9	26.1	71.1
Improved quality	0	2	3	53	222
%	0.0	0.7	1.1	18.9	79.3
Employee satisfaction	0	2	5	189	84
%	0.0	0.7	1.8	67.5	30.0
Reduction in errors	0	0	14	166	100
%	0.0	0.0	5.0	59.3	35.7
Increase in organizational commitment	0	1	7	90	182
%	0.0	0.4	2.5	32.1	65.0

Graph 4.42Frequency distribution of respondents according to benefits received by the organization after ISO Certification



At the end of the questionnaire, the researcher has also judged the benefits received by the organization after ISO certification. Here again he defined 10 different parameters to study the benefits received by the organization.

System discipline improved - The researcher has observed that there is an extremely improvement in the system discipline. This will definitely help the organization to standardize all its systems.

HR processes put in the place - It indicates that, HR practices followed in the organization have streamlined and they are executed as per the HR policy. This is the impact of implementation of ISO certification in the organization. The researcher has observed that the rating of HR processes put in the place shows moderate improvement.

Customer Satisfaction - Customer satisfaction is the ultimate aim of any organization. The researcher has observed that, as the impact of ISO certification is positive on selected HR practices, it has also resulted into increased customer satisfaction. This will benefit the company to increase the number of loyal customers for the organization, which will increase the sale of the company and the brand value of the company.

Enhancement in the effectiveness of HR functions in the organization – As the HR processes put in the place , the researcher has observed that , the effectiveness of execution of HR functions in the organization has increased to a great extend.

Improved productivity – The researcher has observed that, the productivity of the organization has increased to the great extent. This may be the result of reduction in errors, reduction in complaints , increased competency of the employees , increased quality of work , which is the outcome of improved selected HR practices due to ISO certification.

Improved quality, improved efficiency - The researcher has observed that, both the parameters show extremely improvement. It indicates that quality and efficiency has positively impacted due to ISO implementation in the organization.

Employee satisfaction - It is said that, satisfied, motivated employees, are the asset of any organization. Because satisfied employees , give their 100% to the organization. It ultimately results into increased performance of the organization. The researcher has observed that , this is the big benefit to the organization.

Reduction in errors – The researcher has observed that , there is a positive impact of ISO certification on selected HR practices. It shows that there is reduction in errors made by the co. In other words, it shows , improved performance of the employees.

Increase in organizational commitment – The last parameter related to benefits received by the organization, which shows extremely improvement. For any organization, employee's commitment is more important. The researcher has observed the remarkable impact on commitment of the employees towards the organization.

The response is maximum for 'Customer satisfaction' & 'Improved quality'; then 'System Discipline improved' & 'Increase in organizational commitment'; then 'Improved efficiency'; then 'Improved productivity'; then 'Reduction in errors'; then 'Employee satisfaction'; then 'Enhancement in effectiveness of HR function in the organization' & lastly 'HR Processes put in place'.

Over all the researcher can conclude from this questionnaire that, there is a significant impact on selected HR practices , after ISO certification . Also further the researcher

would like to add that , ISO certification has also benefited to the employees and the organization in context with selected HR practices.

4.3 Questionnaire for ISO Consultant –

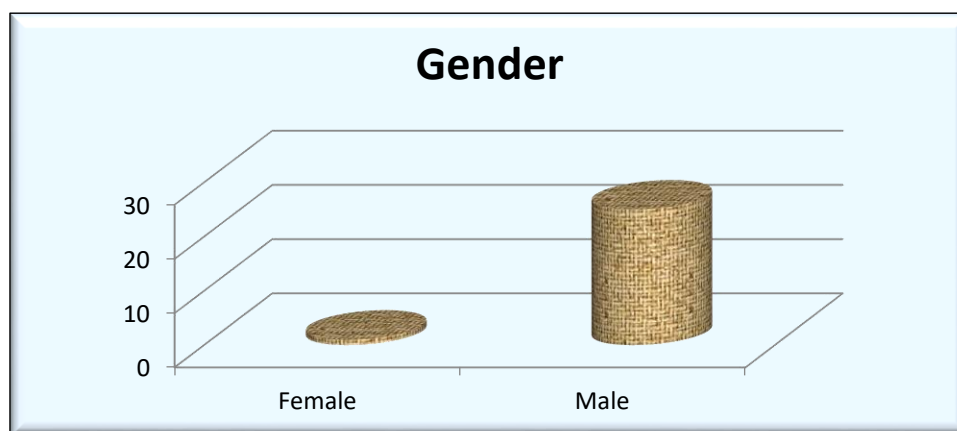
The researcher has designed this questionnaire of ISO consultants to support the research and to understand the opinions of the ISO consultants. Opinions by ISO consultants, as a third party were considered in the research. There were total 26 respondents for this questionnaire. Few ISO consultants were selected , those who have given consultancy to the automobile industries in our sample. Out of 26 respondents 25 respondents i.e. 96.2% respondents were male respondents whereas only one respondent was female respondent i.e. 3.8%.

4.3.1 General Information

Table 4.43 Frequency distribution of respondents according to Gender

Gender	Frequency	Percent
Female	1	3.8
Male	25	96.2
Total	26	100.0

Graph 4.43 Frequency distribution of respondents according to Gender

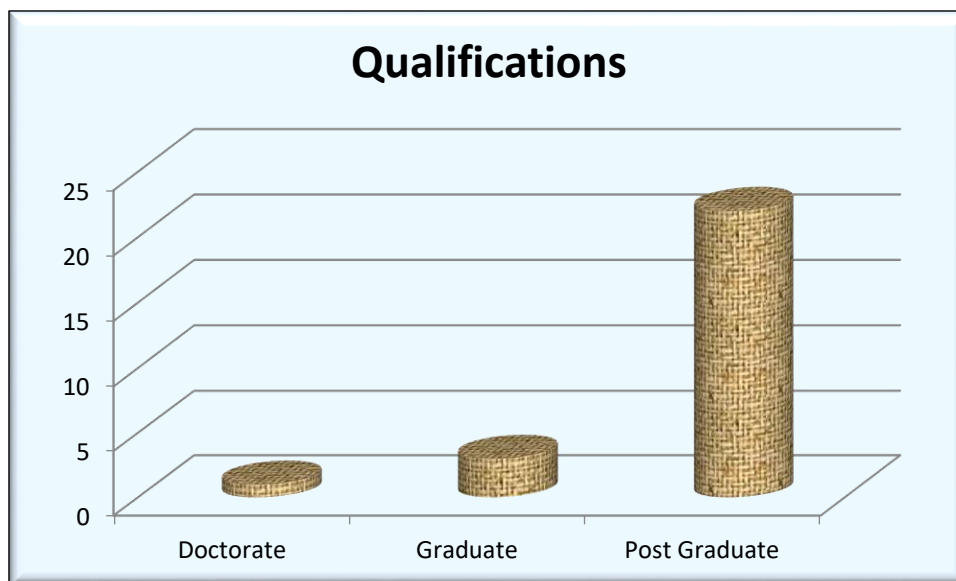


The researcher has observed that , distribution of respondents as per their qualification shows 22 respondents i.e. 84.6% respondents are post graduate, 11.5% i.e. 3 respondents are graduate , where as one respondent i.e. 3.8% is a Doctorate , out of total 26 respondents.

Table 4.44 Frequency distribution of respondents according to Qualification

Qualifications	Frequency	Percent
Doctorate	1	3.8
Graduate	3	11.5
Post Graduate	22	84.6
Total	26	100.0

Graph 4.44 Frequency distribution of respondents according to Qualification

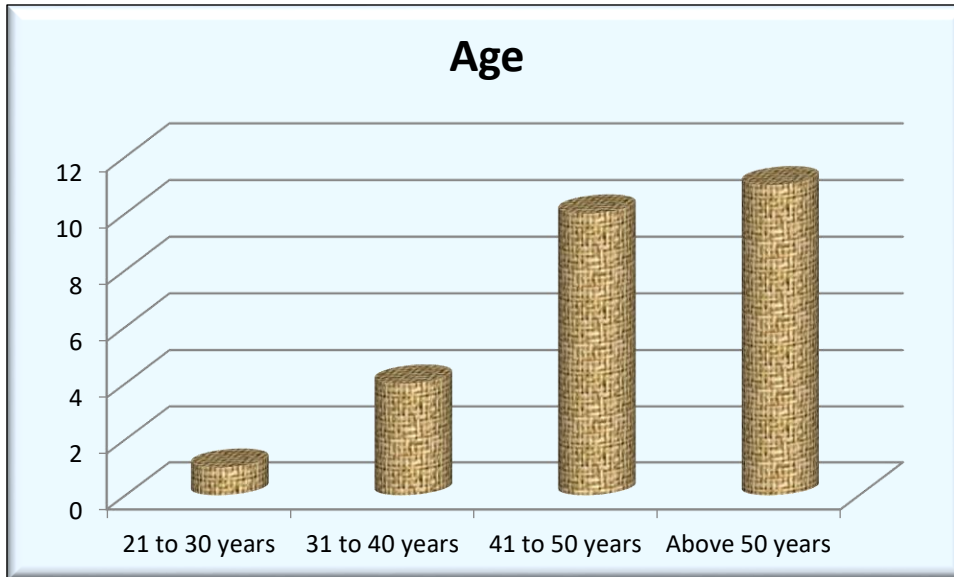


- The researcher observes that the age of the maximum respondents i.e. 42.3% is above 50 years, 38.5% respondents belongs to 41 to 50 years, the age of 4 respondents i.e. 15.4% respondents is between 31 to 40 years and only one respondent's i.e. 3.8% , age is between 21 to 30 years. It shows that the maximum respondents are experienced in their field.

Table 4.45 Frequency distribution of respondents according to Age

Age	Frequency	Percent
21 to 30 years	1	3.8
31 to 40 years	4	15.4
41 to 50 years	10	38.5
Above 50 years	11	42.3
Total	26	100.0

Graph 4.45 Frequency distribution of respondents according to Age

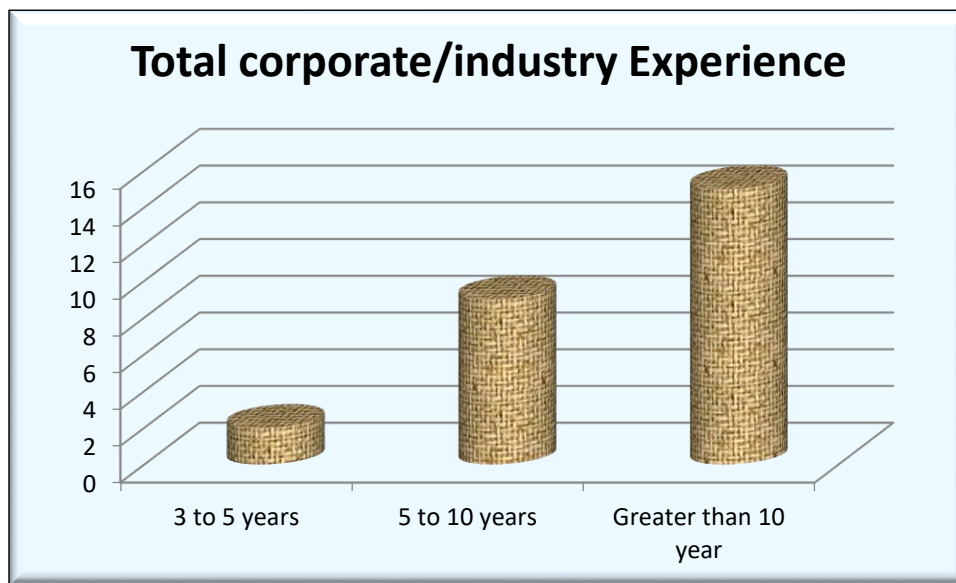


- To understand the industry / corporate consultancy experience of the ISO consultant , this question was asked by the researcher. There are total 15 respondents i.e. 57.7% whose experience in corporate/ industry is above 10 years., 9 respondents has 5 to 10 years of experience in corporate whereas only 2 respondents has 3 to 5 years of experience.

Table 4.46 Frequency distribution of respondents according to Total corporate/industry Experience

Total corporate/industry Experience	Frequency	Percent
3 to 5 years	2	7.7
5 to 10 years	9	34.6
Greater than 10 year	15	57.7
Total	26	100.0

Graph 4.46Frequency distribution of respondents according to Total corporate/industry Experience

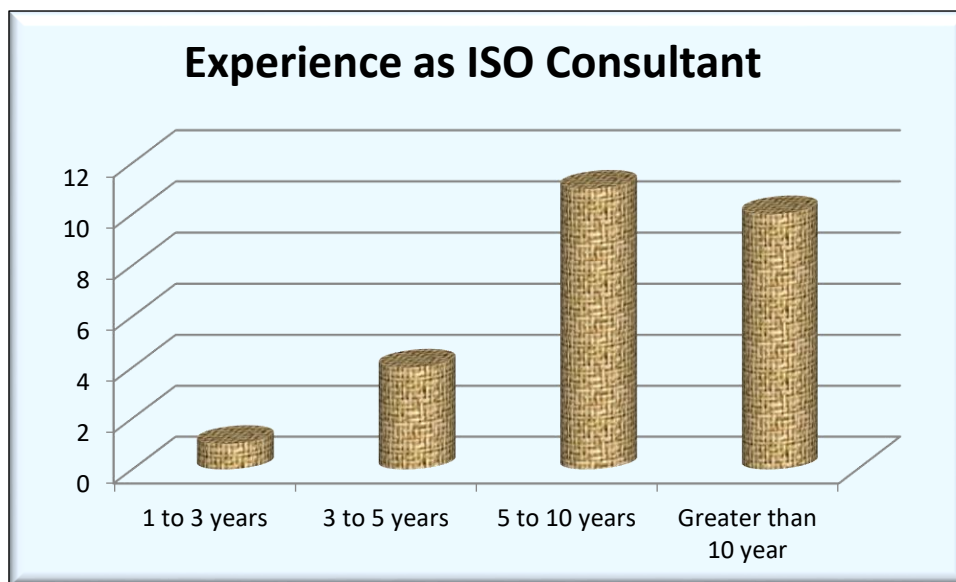


The following analysis gives the knowledge to the researcher that , maximum respondents i.e. 11 (42.3%) respondents has 5 to 10 years of experience as a ISO consultant, 10 (i.e.38.5%) respondents has greater than 10 years of experiences a ISO consultant , There are only 5 respondents whose experience is less than 5 years as a ISO consultant. It shows maximum respondents are experienced ISO consultant.

Table4.47 Frequency distribution of respondents according to Experience as ISO Consultant

Experience as ISO Consultant	Frequency	Percent
1 to 3 years	1	3.8
3 to 5 years	4	15.4
5 to 10 years	11	42.3
Greater than 10 year	10	38.5
Total	26	100.0

Graph 4.47Frequency distribution of respondents according to Experience as ISO Consultant



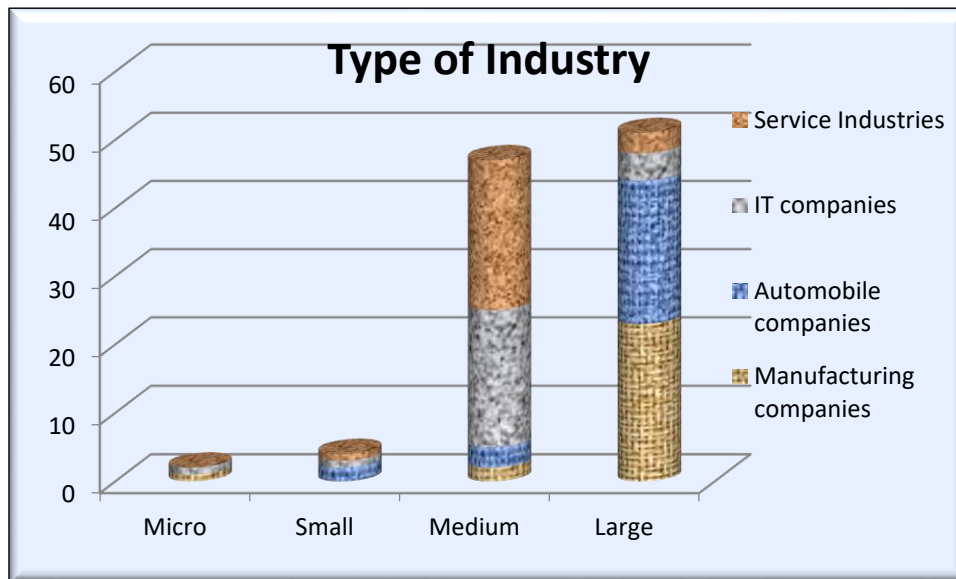
- To understand the consultancy experience of ISO consultant in various types of industries, the researcher has designed this question. The following analysis shows that most of the consultants have given the consultancy to large scale manufacturing companies (88.5%) and automobile companies (80.8%)

4.3.2 Overall Impact

Table 4.48 Frequency distribution of respondents according to type of industry to which the ISO consultancy is provided

Type of Industry	Micro	Small	Medium	Large
Manufacturing companies	1	0	2	23
%	3.8	0.0	7.7	88.5
Automobile companies	0	2	3	21
%	0.0	7.7	11.5	80.8
IT companies	1	1	20	4
%	3.8	3.8	76.9	15.4
Service Industries	0	1	22	3
%	0.0	3.8	84.6	11.5

Table 4.48 Frequency distribution of respondents according to type of industry to which the ISO consultancy is provided

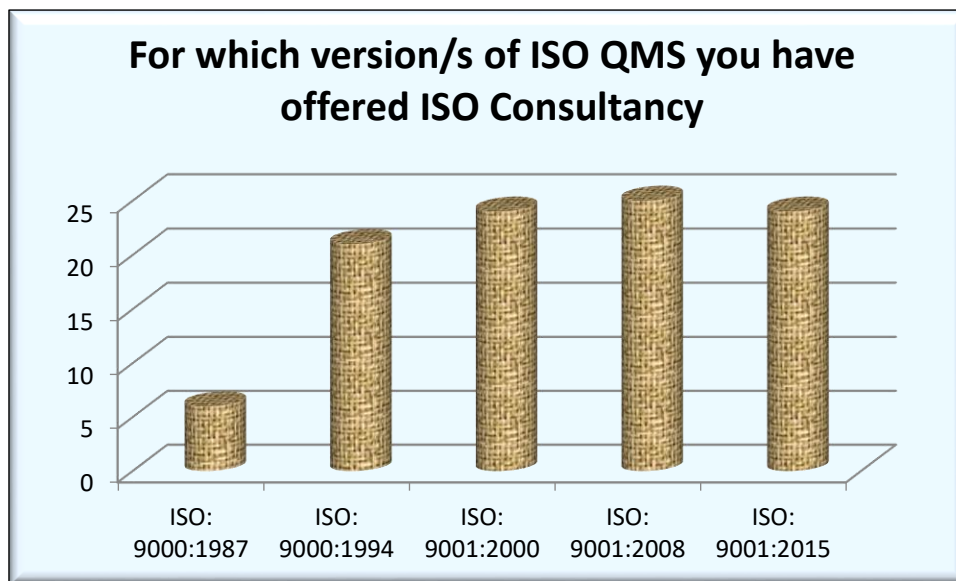


There are various versions of ISO certification , to know the consultancy experience of the ISO consultant in those certification areas , this question was designed by the researcher. The researcher has found that as stated earlier, most of the respondents are experienced. Following analysis shows that, many of them have given the consultancy in ISO 9000:1994 , ISO 9001:2000, ISO 9001:2008 and ISO 9001:2015.

Table 4.49 Frequency distribution of respondents according to consultancy given for different ISO version

For which version/s of ISO QMS you have offered ISO Consultancy	Frequency	Percent
ISO: 9000:1987	6	23.1
ISO: 9000:1994	21	80.8
ISO: 9001:2000	24	92.3
ISO: 9001:2008	25	96.2
ISO: 9001:2015	24	92.3

Table 4.49 Frequency distribution of respondents according to consultancy given for different ISO version

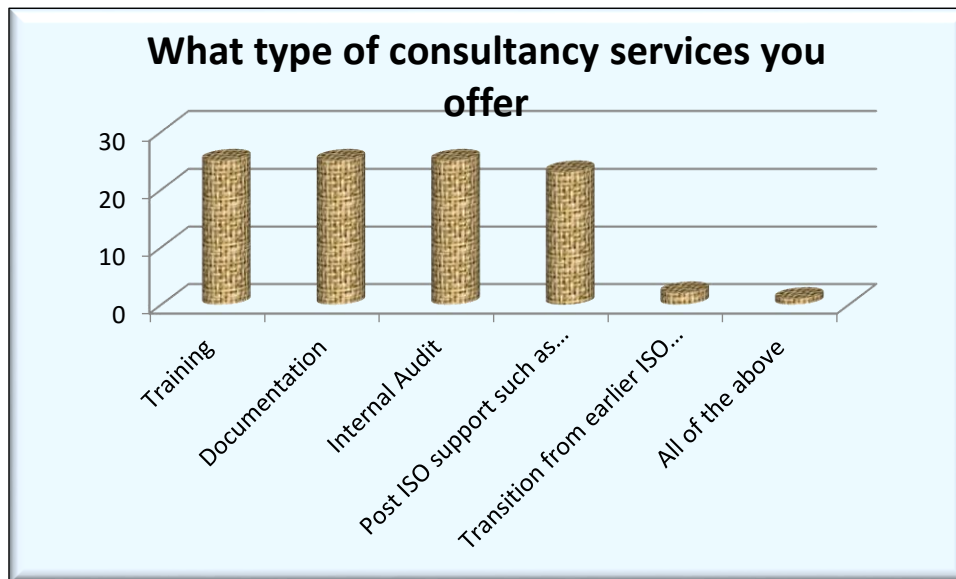


- ISO consultants offer various services to their clients related to ISO certification/ process. The observation of the researcher is that , almost 96.2% respondents provide services in training, documentation, internal audit. 23 respondents also provide post ISO support such as system maturity assessment, system improvement. Three respondents provide consultancy in transition from earlier ISO version to next version. 1 respondent has replied that he provides consultancy in all above areas related to ISO.

Table 4.50 Frequency distribution of respondents according to type of consultancy services they offer

What type of consultancy services you offer	Frequency	Percent
Training	26	96.2
Documentation	25	96.2
Internal Audit	25	96.2
Post ISO support such as System Maturity assessment, System Improvement	23	88.5
Transition from earlier ISO version to next version	3	7.7
All of the above	1	3.8

Graph 4.50Frequency distribution of respondents according to type of consultancy services offered

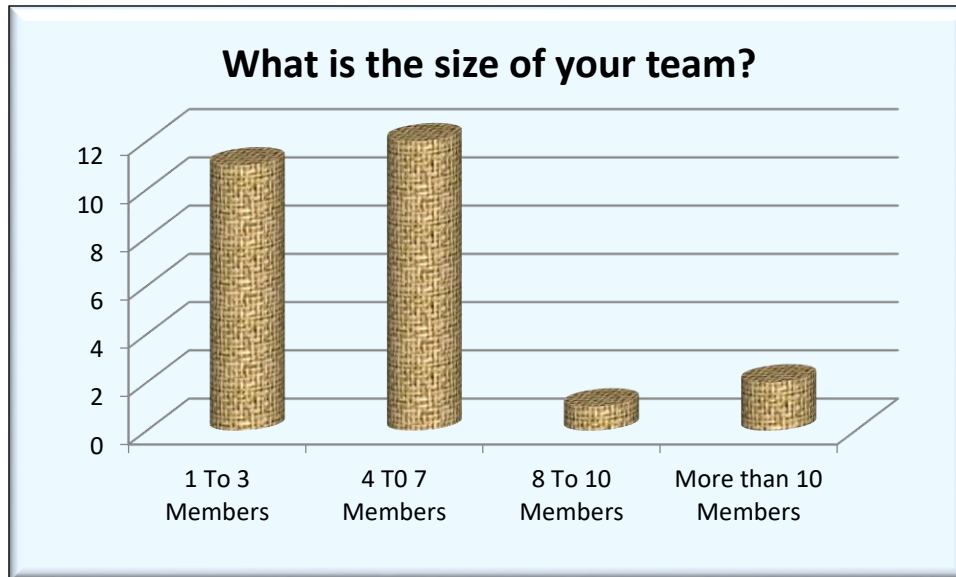


- ISO consultants work in teams while providing the consultancy to clients. The researcher has observed that, there are 12 respondents who work with the team of 4 to 7 members. There are 11 respondents who work with the team of 1 to 3 members. There are only 2 respondents whose team size is more than 10 members. 1 respondent works with the team size of 8 to 10 members.

Table 4.51 Frequency distribution of respondents according to the size of your team working with them

Size of your team	Frequency	Percent
1 To 3 Members	11	42.3
4 To 7 Members	12	46.2
8 To 10 Members	1	3.8
More than 10 Members	2	7.7
Total	26	100.0

Graph 4.51Frequency distribution of respondents according to size of the team



- To understand the expertise of ISO consultant, following question was designed by the researcher . The observation gives the knowledge to the researcher that , 10 respondents i.e. 38.5% respondents have provided to the consultancy to more than 10 organizations. 7 respondents have provided the ISO consultancy to 8 to 10 organizations, whereas 9 respondents have provided the ISO consultancy to 4 to 7 organizations.

Table 4.52 Frequency distribution of respondents according to number of organizations you have offered ISO Consultancy

Number of organizations you have offered ISO Consultancy	Frequency	Percent
4 To 7 Organizations	9	34.6
8 To 10 Organizations	7	26.9
More than 10 Organizations	10	38.5
Total	26	100.0

Graph 4.52Frequency distribution of respondents according to consultancy offered



- To understand the scope of the consultancy of ISO consultant, this question was added in the questionnaire. The researcher observes that, almost 22 consultants i.e. 84.6%, out of 26 practice in the state of Maharashtra, whereas only 4 consultants i.e. 15.4% practice in all over India.

Table 4.53 Frequency distribution of respondents according to client base

Your client base is	Frequency	Percent
All India	4	15.4
State of Maharashtra	22	84.6
Total	26	100.0

Graph 4.53Frequency distribution of respondents according to client base

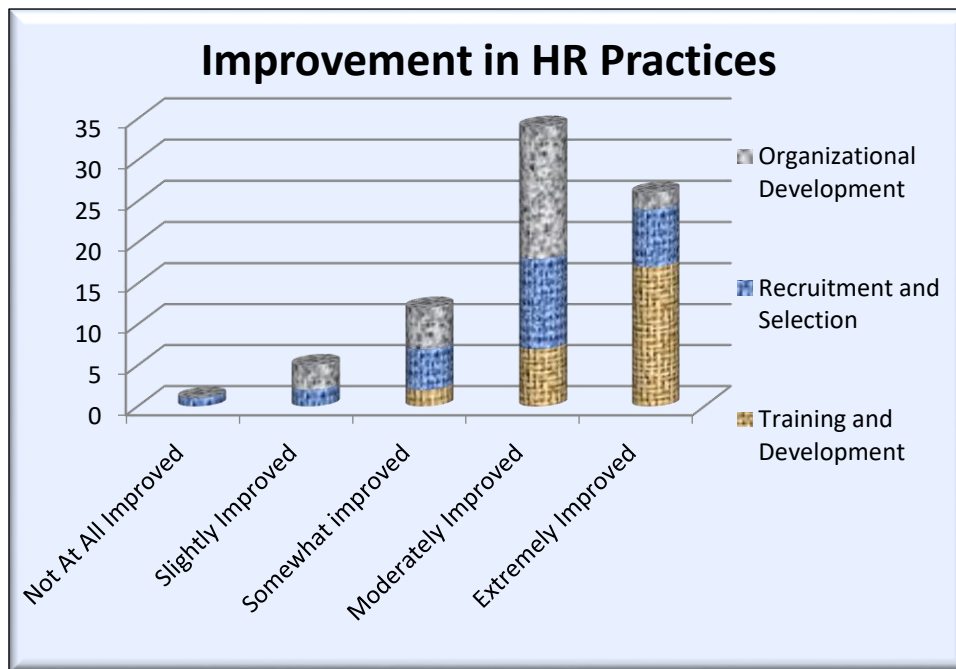


- The researcher has observed that , in the opinion of ISO consultants , there is a significant improvement in T & D as compared to R & S and OD . T & D shows extremely improvement i.e. 65.4% , as against R & S and OD shows moderately improvement which is 42.3% and 61.5% respectively.

Table 4.54 Frequency distribution of respondents according to impact of ISO QMS on improvement in selected HR practices

HR practices	Not At All Improved	Slightly Improved	Somewhat improved	Moderately Improved	Extremely Improved
Training and Development	0	0	2	7	17
%	0.0	0.0	7.7	26.9	65.4
Recruitment and Selection	1	2	5	11	7
%	3.8	7.7	19.2	42.3	26.9
Organizational Development	0	3	5	16	2
%	0.0	11.5	19.2	61.5	7.7

Graph 4.54Frequency distribution of respondents according to the impact of ISO QMS on improvement in following HR practices



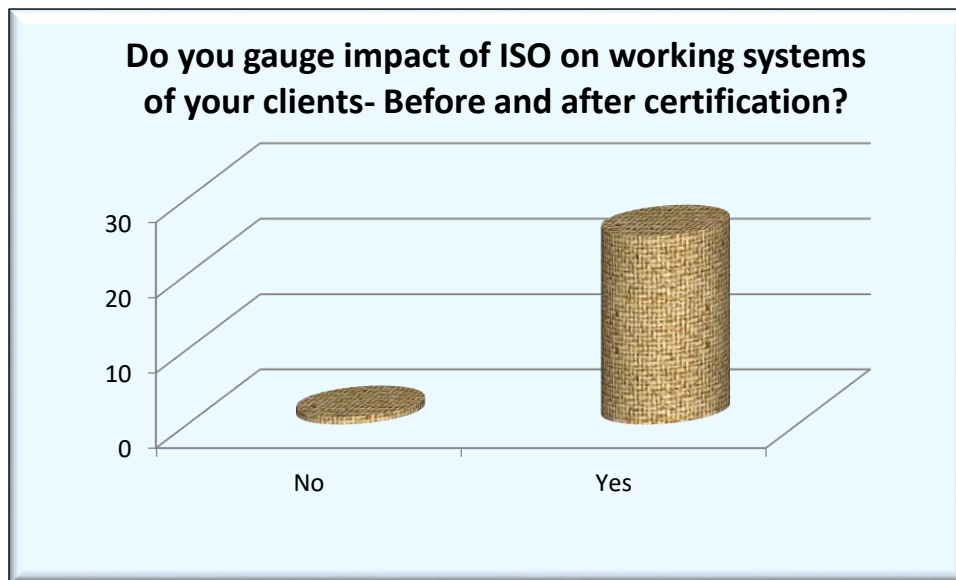
The Maximum response is for ‘Training and Development’; then ‘Recruitment and Selection’ & ‘Organizational Development’.

- The researcher has observed that , almost 96.2% ISO consultants assess the impact of ISO certification , before and after certification , in client’s organization . It helps to understand the effectiveness and importance of ISO certification on clients organization.

Table 4.55Frequency distribution of respondents according to assessment of impact of ISO on before and after ISO certification in client’s organization

Do you gauge impact of ISO on working systems of your clients- Before and after certification?	Frequency	Percent
No	1	3.8
Yes	25	96.2
Total	26	100.0

Graph 4.55Frequency distribution of respondents according to assessment of impact of ISO on Before and after ISO certification in client's organization

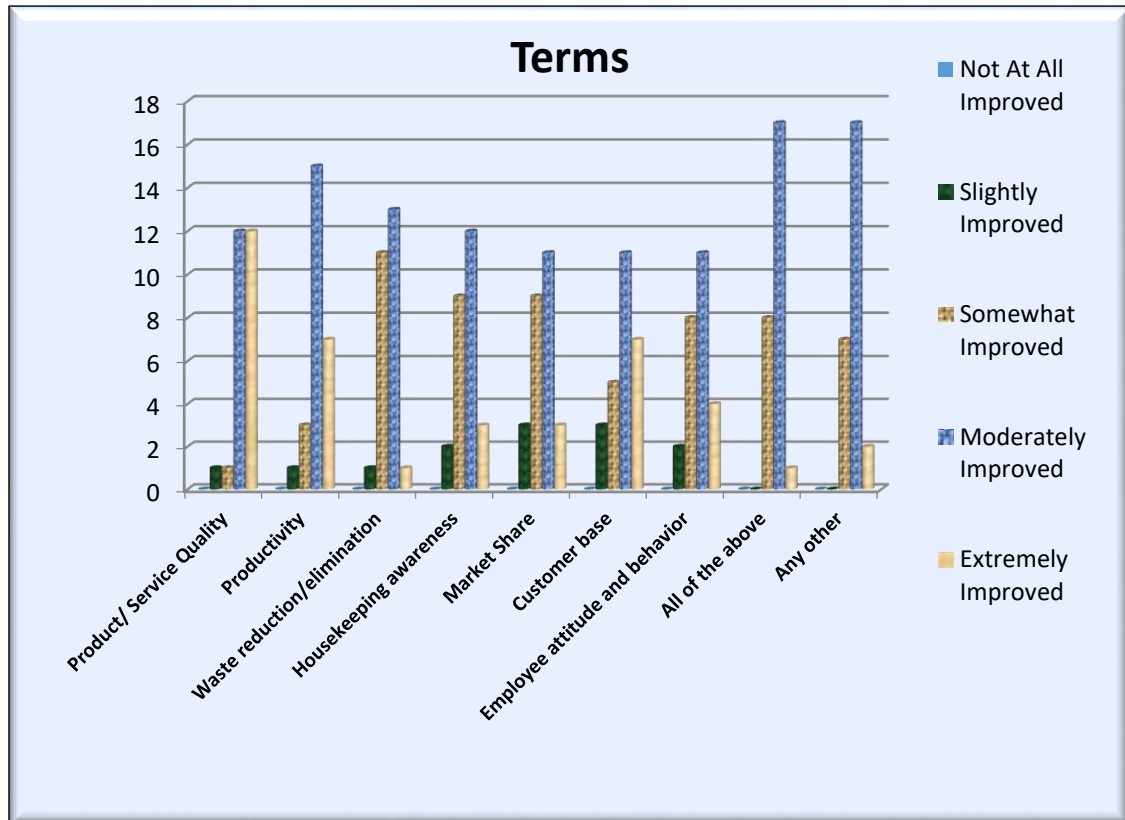


- The researcher has selected different 7 major areas , to assess the overall impact of ISO Certification in clients organization. The researcher has observed that, almost all shows moderate improvement because of the ISO implementation. The major areas were product service quality (it shows equal % in column 4 % 5 i.e. modernly improvement and extremely improvement), productivity, waste reduction, housekeeping awareness, market share , customer base, employee attitude and behavior, all of the above and any other. In any other respondents have specified the areas employee motivation, QMS and ISO awareness increased, improved the brand of the co. in market etc.

Table 4.56 Frequency distribution of respondents according to improvement in shown in following areas in client's organization due to the implementation of ISO QMS

Terms	Not At All Improved	Slightly Improved	Somewhat Improved	Moderately Improved	Extremely Improved
Product/ Service Quality	0	1	1	12	12
%	0.0	3.8	3.8	46.2	46.2
Productivity	0	1	3	15	7
%	0.0	3.8	11.5	57.7	26.9
Waste reduction/elimination	0	1	11	13	1
%	0.0	3.8	42.3	50.0	3.8
Housekeeping awareness	0	2	9	12	3
%	0.0	7.7	34.6	46.2	11.5
Market Share	0	3	9	11	3
%	0.0	11.5	34.6	42.3	11.5
Customer base	0	3	5	11	7
%	0.0	11.5	19.2	42.3	26.9
Employee attitude and behavior	0	2	8	11	4
%	0.0	7.7	30.8	42.3	15.4
All of the above	0	0	8	17	1
%	0.0	0.0	30.8	65.4	3.8
Any other	0	0	7	17	2
%	0.0	0.0	26.9	65.4	7.7

Graph 4.56 Frequency distribution of respondents according to improvement in shown in following areas in clients organization due to the implementation of ISO QMS



In the questionnaire for ISO consultant , the researcher has asked 7 parameters to find out , what ISO consultants think about the impact of ISO certification on the client organization. These are the general parameters, which covers impact on various aspects of the organization. **Product & Service quality** – It shows extremely improvement. It may be because of the extremely improvement in T & D after ISO certification. **Productivity** – The researcher has observed that the productivity shows moderate improvement. It indicates , that, still there is a scope for improvement. **Waste reduction/ elimination** – It is also one of the objective of the management for implementing ISO in the organization. It also shows positive impact of ISO implementation. **Housekeeping awareness** – It indicates moderate improvement. Overall analysis of the research

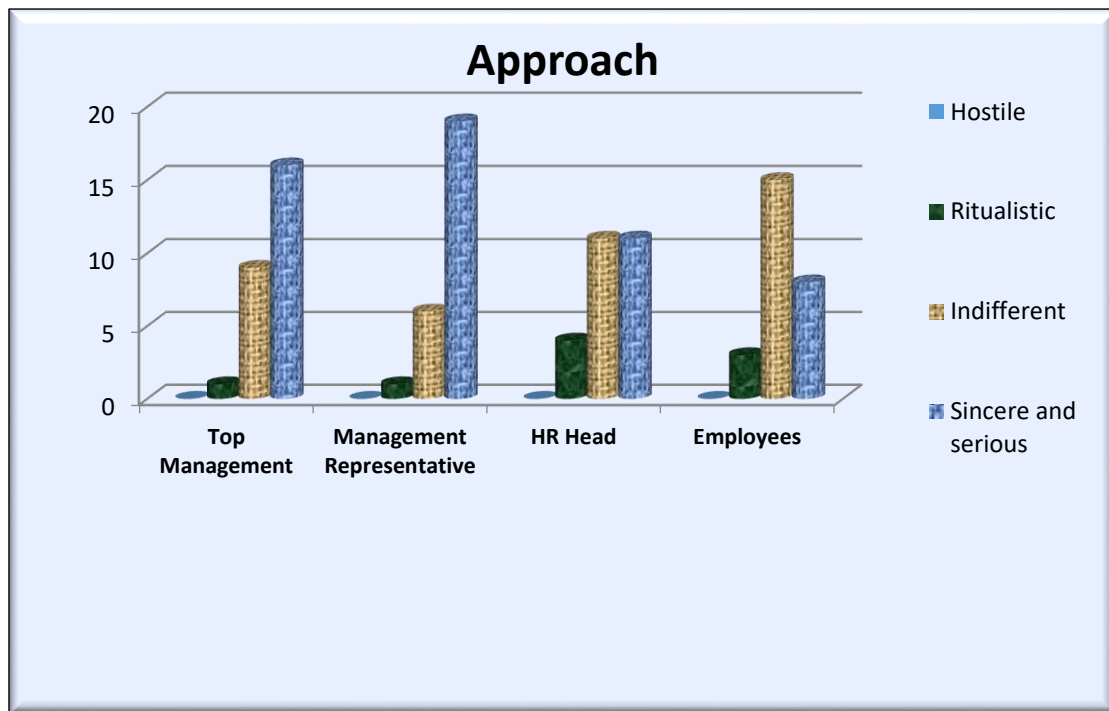
shows that the housekeeping initiatives are not properly taken care of by the organizations. This is the area, where management should focus more on to it. **Market share** - ISO certification, is a Quality Management System , which helps to improve the overall quality of the organization. It leads to improve the brand image of the organization. Ultimately the market share of the organization will improve. **Customer base** – Loyal customers ensures the consistent growth of the organization. It is observed by the researcher that customer base becomes strong, if co. is ISO certified. **Employee attitude and behavior** – The researcher has observed that , improved HR practices in the organization , gives more satisfaction and motivation to the employees. It positively reflects in the attitude and the behavior of the employees.

To understand the perception and approach of employees towards ISO QMS , from different levels of the organization this question was designed by the researcher. The analysis gives the knowledge to the researcher that, none of the stake holders has holistic approach. Top management, Management representatives have sincere and serious approach towards ISO QMS implemented in the organization. HR head have equal approach i.e. few of them shows indifferent approach whereas few of them have sincere and serious approach.

Table 4.57 Frequency distribution of respondents according to the approach of employees towards ISO QMS.

Terms	Hostile	Ritualistic	Indifferent	Sincere and serious
Top Management	0	1	9	16
%	0.0	3.8	34.6	61.5
Management Representative	0	1	6	19
%	0.0	3.8	23.1	73.1
HR Head	0	4	11	11
%	0.0	15.4	42.3	42.3
Employees	0	3	15	8
%	0.0	11.5	57.7	30.8

Graph 4.57 Frequency distribution of respondents according to the approach of employees towards ISO QMS.



The researcher has, tried to understand the approach of 4 major stake holders of the organization, i.e. Top management, Management representatives, HR head , employees of the organization towards the ISO certification. The observation shows that, top management , Management representative , HR head have quite sincere and serious approach towards ISO certification , whereas the approach of employees is indifferent.

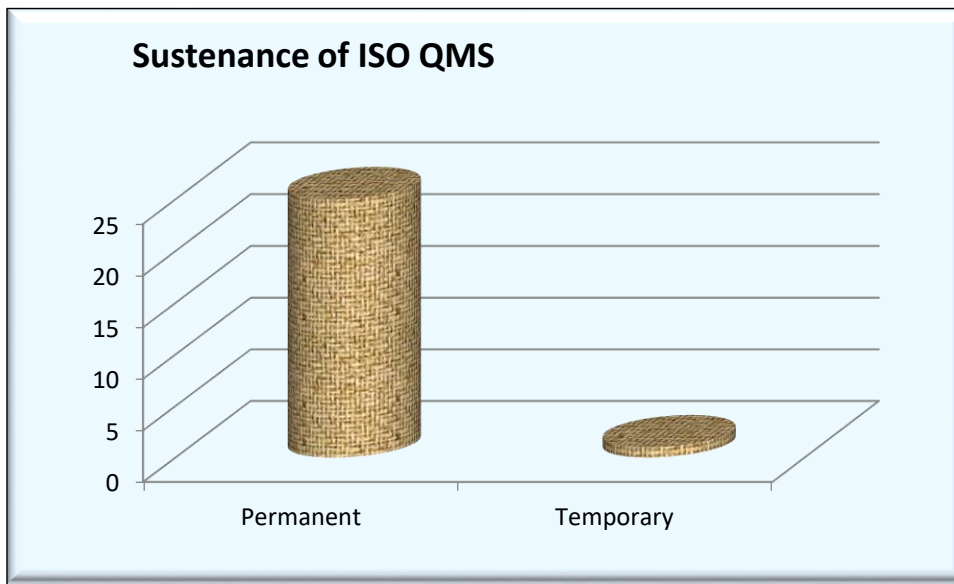
The maximum response for Top Management, Management Representative & HR Head is 'Sincere and serious'. The maximum response for Employees is 'Indifferent'.

- From the following analysis, researcher has observed that , 25 respondents i.e. 96.2% respondents agrees that the sustenance of ISO QMS is permanent.

Table 4.58 Frequency distribution of respondents according to the sustenance of ISO with your clients

How has been the sustenance of ISO QMS with your clients?	Frequency	Percent
Permanent	25	96.2
Temporary	1	3.8
Total	26	100.0

Graph 4.58Frequency distribution of respondents according to the sustenance of ISO QMS with clients.



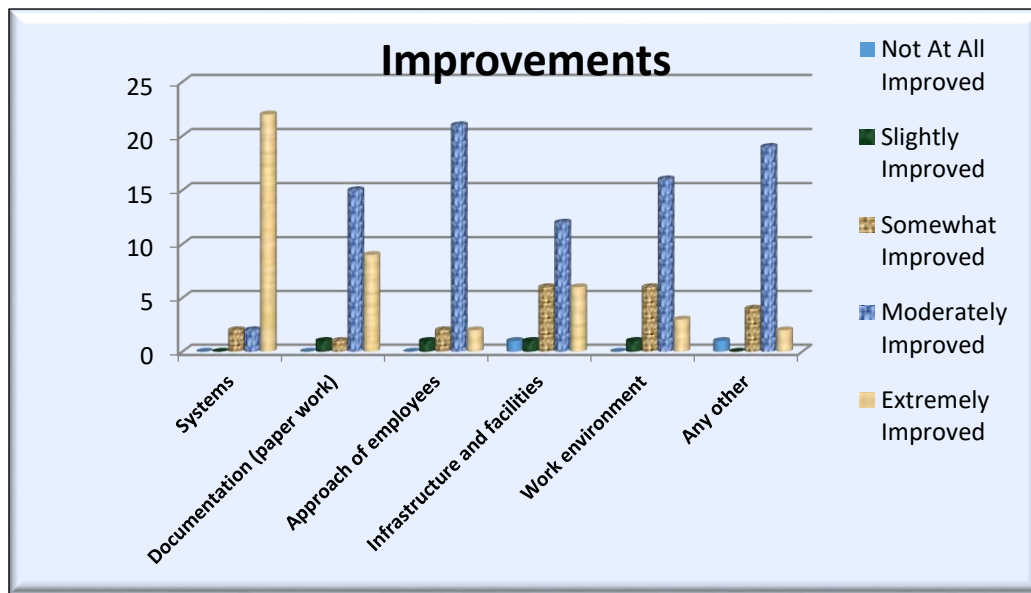
The Maximum response is for ‘Permanent’.

- Following analysis shows that definitely ISO certification has shown remarkable improvement in areas stated below. The researcher observes that , there is extremely improvement in the various systems of the organization, It shows standardizations in the system of the organization. In other areas like documentation, approach of the employees, infrastructure and facilities, work environment, it shows moderate improvement. It indicates that ISO Certification has positive impact on the various areas of the organization.

Table 4.59 Frequency distribution of respondents according to whether ISO QMS brought changes/improvements.

Parameters	Not At All Improved	Slightly Improved	Somewhat Improved	Moderately Improved	Extremely Improved
Systems	0	0	2	2	22
%	0.0	0.0	7.7	7.7	84.6
Documentation (paper work)	0	1	1	15	9
%	0.0	3.8	3.8	57.7	34.6
Approach of employees	0	1	2	21	2
%	0.0	3.8	7.7	80.8	7.7
Infrastructure and facilities	1	1	6	12	6
%	3.8	3.8	23.1	46.2	23.1
Work environment	0	1	6	16	3
%	0.0	3.8	23.1	61.5	11.5
Any other	1	0	4	19	2
%	3.8	0.0	15.4	73.1	7.7

Graph 4.59 Frequency distribution of respondents according to whether ISO QMS brought changes/improvements.



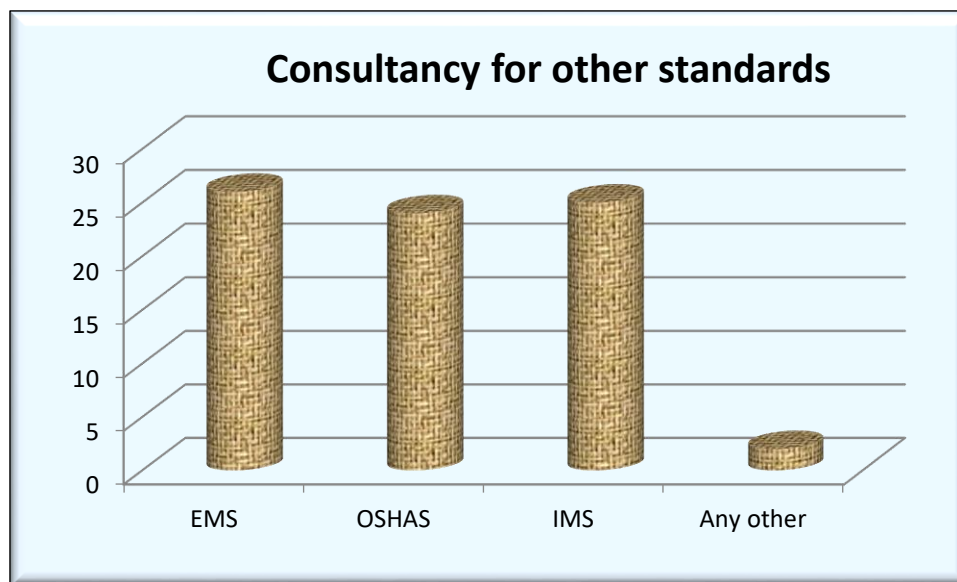
At the end of the questionnaire, the researcher has drafted the question which has five parameters to judge the overall impact by the ISO consultant as a third part. **System** - The researcher has observed from the analysis , that there is standardization in the system. It is very good sign , as it is rightly said that , systems of the organization should be process dependent and not person dependent. It means that there has to be uniformity in the implementation of various processes. **Documentation or paper work** - In ISO certification process, documentation plays very important role . It is stated in ISO, that document what you do and do it what you document. It is the observation of the researcher that the documentation process is moderately improved. **Approach of the employees** - Improved HR practices , will definitely have positive impact on the approach of the employee. They will have positive approach towards the work , organization. Employees will try to give their 100% to the organization. **Infrastructure and facilities**- The researcher has observed that there is moderate improvement in infrastructure and facilities provided in the organization. **Work environment** - It is observed by the researcher that the work environment shows moderate improvement. It means work environment are suitable for employees to work in the organization

- ISO consultants offers consultancy for various standards. The researcher has observed that , all consultants offer consultancy for EMS (100%) , 92.3% offers consultancy for OSHAS, and 96.2% consultant offers consultancy for IMS.

Table 4.60 Frequency distribution of respondents according to consultancy offered for other standards

Do you offer consultancy for	Frequency	Percent
EMS	26	100.0
OSHAS	24	92.3
IMS	25	96.2
Any other	2	7.7

Graph 4.60 Frequency distribution of respondents according to consultancy offered for other standards



The response is maximum for ‘Systems’ & ‘Documentation (paper work)’; then ‘Approach of employees’; then ‘Any other’; then ‘Work environment’; then lastly ‘Infrastructure and facilities’.

4.4 Testing of Hypotheses

Inferential statistics plays important role in proving hypothesis set by the researcher. In this research seven hypotheses were set by the researcher to support the stated objectives.

Hypothesis 1 :

H₀: There is no association between evaluation of effectiveness of ISO 9001:2008 and the tenure of person served with the organization?

H₁: There is association between evaluation of effectiveness of ISO 9001:2008 and the tenure of person served with the organization?

Level of Significance $\alpha = 0.05$

Test Statistics

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	22.375	12	.034
Likelihood Ratio	25.144	12	.014
Linear-by-Linear Association	.941	1	.332

Observation: $\chi^2(12) = 22.375$, $P = 0.034$

Conclusion: Since P value (0.034) is less than the level of significance (0.05), null hypothesis is rejected and alternate is accepted hence it is concluded that there is significant association between evaluation of effectiveness of ISO 9001:2008 and the tenure of person served with the organization.

Hypothesis 2:

H₀: There is no association between ISO 9001:2008 certification and improvement in training and development with respect to the tenure of the person served with the organization?

H₁: There is association between ISO 9001:2008 certification and improvement in training and development with respect to the tenure of the person served with the organization?

Statistical Test: Chi-Square test

Level of Significance $\alpha = 0.05$

Test Statistics

	Value	df	Asymp. Sig. (2-sided)
ISO Certification*Approach Towards Training	13.280	6	0.039
ISO Certification*Periodicity of Training	15.962	6	0.014

Observation: $\chi^2(6) = 13.280$, $P = 0.039$

Observation: $\chi^2(6) = 15.962$, $P = 0.014$

Conclusion: Since P value is less than the level of significance (0.05), null hypothesis is rejected and alternate is accepted hence it is concluded that there is significant association between ISO 9001:2008 certification and improvement in training and development with respect to the tenure of the person served with the organization.

Note - There are 4 aspects through which improvement in training and development has been seen these are: approach towards training, seriousness towards training, periodicity of training and enhancement in on job performance

Hypothesis 3:

H₀: Following ISO guidelines has no impact on Improvement in Recruitment and Selection. (Mean of the two groups are equal.)

H₁: Following ISO guidelines has impact on Improvement in Recruitment and Selection. (At least one of the Mean values is different from rest)

Level of Significance $\alpha = 0.05$

Statistical Test: One way Anova

Test Statistics

Descriptive

Improvement in Recruitment and Selection

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum
					Lower Bound	Upper Bound	
Yes	263	72.92	6.870	.424	72.09	73.76	43
No	4	65.22	10.631	5.316	48.31	82.14	50
Total	267	72.81	6.974	.427	71.97	73.65	43

ANOVA

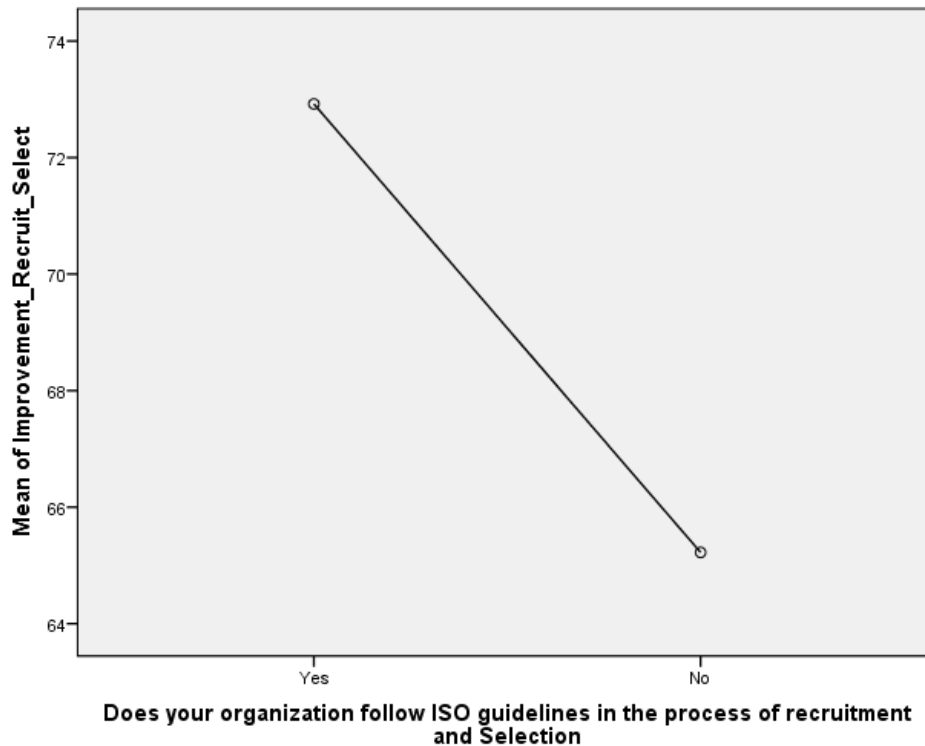
Improvement in Recruitment and _Selection

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	233.482	1	233.482	4.870	.028
Within Groups	12705.340	265	47.945		
Total	12938.821	266			

Conclusions:

Since P value for dependent variable is less than level of significance hence it is concluded that ISO 9001:2008 shows positive has impact on improvement in Recruitment and Selection.

By following the below mentioned means plot it is evident that organization follows ISO guideline majorly and there is improvement in recruitment and selection.



Hypothesis 4 :

H₀: There is no relationship between change in Organizational Development activity due to ISO 9001:2008 implementation and Improvement in Organizational Development activity

H₁: There is significant relationship between change in Organizational Development activity due to ISO 9001:2008 implementation and Improvement in Organizational Development activity

Statistical Test: Spearman Rank Co-relation

Level of Significance $\alpha = 0.05$

Pair	Spearman rho value	P value	Result	Conclusion
Change in OD - Improvement in OD	0.360	0.000	Significant	Positive Relationship

Conclusion:

It has been observed that change in Organizational Development activities is positively correlated to the improvement in Organizational Development interventions.

Hypothesis 5 :

H₀: There is no difference in the extent of benefits perceived by employees due to the implementation of ISO 9001:2008 certification.

H₁: There is difference in the extent of benefits perceived by employees due to the implementation of ISO 9001:2008 certification.

Statistical Test: Friedman chi-square test

Level of Significance $\alpha = 0.05$

Test Statistics

Chi-Square	242.584
Df	4
Asymp. Sig.	.000

a. Friedman Test

Observation: $\chi^2(4) = 242.584$, $P = 0.000$

Conclusion: Since P value (0.000) is less than level of Significance (0.05), null hypothesis is rejected here and it is concluded that there is difference in the extent of benefits perceived by employees due to the implementation of ISO 9001:2008 certification.

To find out whether difference lies we refer to Ranks table.

Ranks	
	Mean Rank
Enhancement in on-job performance	3.73
Improvement in the competency of employees	3.21
Increased motivation of the employees	3.00
Increase in the morale of employees	2.96
Reduced Attrition Rate	2.09

From Ranks table it can be seen that top 3 benefits perceived by employees are enhancement in On-job performance, improvement in the competency of employees and increased motivation due to the implementation of ISO 9001:2008 certification.

Hypothesis 6 :

H₀: There is no difference in the extent of benefits perceived by companies due to the implementation of ISO 9001:2008 certification.

H₁: There is difference in the extent of benefits perceived by companies due to the implementation of ISO 9001:2008 certification.

Statistical Test: Friedman chi-square test

Level of Significance $\alpha = 0.05$

Test Statistics	
Chi-Square	452.226
df	9
Asymp. Sig.	.000

a. Friedman Test

Observation: $\chi^2(9) = 452.226, P = 0.000$

Conclusion: Since P value (0.000) is less than level of Significance (0.05), null hypothesis is rejected here and it is concluded that there is difference in the extent of benefits perceived by companies due to the implementation of ISO 9001:2008 certification.

To find out whether difference lies we refer to Ranks table.

Ranks	
	Mean Rank
Improved Quality	6.72
System Discipline Improved	6.68
Increase in Organizational Commitment	6.13
Improved Efficiency	6.02
Improved Productivity	5.90
Customer Satisfaction	5.57
Enhancement in effectiveness of HR function	5.01
Employee Satisfaction	4.69
Reduction in Errors	4.65
HR processes put in place	3.62

From Ranks table it can be seen that top 3 benefits perceived by companies are improved quality, system discipline improved and increase in organizational commitment by employees is seen due to the implementation of ISO 9001:2008 certification.

Hypothesis 7 :

H₀: There is no difference in the extent of improvements perceived by employees in HR practices due to the implementation of ISO 9001:2008 certification.

H₁: There is difference in the extent of improvements perceived by employees in HR practices due to the implementation of ISO 9001:2008 certification.

Level of Significance $\alpha = 0.05$

Statistical Test: Friedman chi-square test

Test Statistics	
Chi-Square	347.197
df	5
Asymp. Sig.	.000

a. Friedman Test

Observation: $\chi^2(5) = 347.197$, $P = 0.000$

Conclusion: Since P value (0.000) is less than level of Significance (0.05), null hypothesis is rejected here and it is concluded that there is difference in the extent of improvements perceived by employees in HR practices due to the implementation of ISO 9001:2008 certification.

To find out whether difference lies we refer to Ranks table.

Ranks	
	Mean Rank
Training Development	4.64
Recruitment Selection	3.94
Industrial Relations	3.55
Payroll Compensation	3.44
Performance Management	2.77
Organizational Development	2.66

From Ranks table it can be seen that top 3 areas of HR practices where employees seen potential improvement due to the implementation of ISO 9001:2008 certification is Training and Development, Recruitment and Selection and Industrial Relations.

Chapter – 5

Conclusions and Recommendations

- 5.1 Conclusion**
- 5.2 Suggestions**
- 5.3 Recommendations**
- 5.4 Limitations of the study**
- 5.5 Future scope of the research**

CONCLUSIONS AND RECOMMENDATIONS

Conclusion and Recommendations

The purpose of this chapter is to segregate research findings of this study, discuss the results, and from the results come to a conclusion and do suggestions and recommendations with limitation and future scope for study. A data analysis has been performed to test all the variables involved in the research and various statistical tests have been performed to test the research questions, all of which will help to assess the hypothesis.

5. 1 Conclusion

1. The first hypothesis is tested and we come to the conclusion that managers who have served around a decade long working with their respective organizations are more able to see the significance of ISO 9001:2008 quality systems and its effectiveness in managing human resource practices of the organization.
2. The second hypothesis has been analyzed and the researcher comes to the conclusion that managers see significant association between ISO 9001:2008 and improvement in training and development with respect to the tenure of the person served with the organization. Also it is concluded from analysis that ISO certification is not associated with employee's seriousness towards training and enhancement in their on- job-performance just by way of implementation of ISO.
3. The analysis of third hypothesis leads to the conclusion that managers who follow ISO guidelines see significant improvement in recruitment and selection of the employees. It's more about the quality of hire. Such employees are better equipped in system implementation and are well aware of their roles and responsibilities.
4. The fourth hypothesis leads to conclusion that ISO supports change in organizational development processes of the organizations and managers see significant difference or rather improvement in organizational development activity. There are positive signs in terms of retention.

5. The fifth hypothesis leads to conclusion that due to ISO 9001:2008 implementation employees see significant benefits in moral as well as there is less attrition than prior to the implementation. What is more important is employees found mix reactions on job performance due to the implementation of ISO 9001:2008 systems.
6. The sixth hypothesis leads to conclusion that companies have gained a lot both tangible and intangible due to implementation of ISO 9001:2008 since they have seen less errors and more satisfied employees and HR processes are more streamlined now.
7. The seventh hypothesis leads to conclusion that employees sees benefit out of organization development activities and performance management system due to the implementation of ISO 9001:2008 quality systems

5. 2 Suggestions

1. The use of large scale automotive companies' as a population sample of the study provides substantial proof that the construct of ISO 9001:2008 does have relevance to the human resource management practices in the context of Pune region.
2. The research suggests that managers of large scale automotive industry of Pune should focus on developing seriousness of employees towards training and also look critically in their performance management. It shows that mere implementing ISO 9001:2008 will not create a change in every aspect of organization. Managers need to play a key role in developing the undeveloped aspects of company to succeed.
3. The research suggests that while diagnosing the benefits of ISO 9001:2008, managers must focus on training and development of the employees. A separate standard developed by ISO family (ISO: 10015) gives guidelines for competence management and employee training.
4. The research identified that ISO 9001:2008 helps in enhancing moral and reduction in attrition in large scale automotive companies of Pune. The research also shows that

successful implementation of ISO depends upon employees or managers who have served longer tenure with the organization.

5. The research has contributed to the knowledge base suggesting that ISO 9001:2008 does impact human resource practices and hence the findings of study would be more beneficial to the large scale automotive companies of Pune.

5.3 Recommendations

The researcher proposes to arrive at certain recommendations on the basis of factors listed below in large scale automobile industries in Pune region. The researcher has brought to the notice that over all there is positive impact on selected HR practices in automobile industries in Pune region after getting ISO 9001:2008 Certification. Few parameters show extreme improvement whereas few parameters show moderate improvement in HR practices in the automobile industries after ISO 9001:2008 Certification. The researcher has reached to various recommendations based on the findings and conclusions of the study which are as follows:

1. The research findings suggest that managers of large scale automotive companies of Pune should take a second look and re-evaluate their training and development activities post ISO 9001:2008 implementation.
2. The implementation of ISO 9001:2008 should involve more experienced and most time served with organization managers or employees which can help them to strategize the implementation in more realistic way. The managers of large scale automotive companies should realign those aspects of human resource practices which are not showing significant improvement post ISO implementation to create more value for their organizations.
3. It is recommended that these large scales automotive companies of Pune should focus on building employees competencies; this component is of prime importance to maintain the quality of products as well as services. For the substantial growth of the organization, the managers should strive hard to build the capabilities of the employees.
4. Due to implementation of ISO 9001:2008 system it's of high importance that employees should be committed to organization. The managers of these large scale automotive companies of Pune should consider getting these employees together and focus on

achieving organizational objectives with full commitment and also it will help the organizations to be more productive.

5. In Pune, the automotive large scale companies, have been divided into various geographic areas. If they work together it will help to create a knowledge repository of ISO and will be able to understand various challenges and opportunities it creates for the business.

5.4 Limitations of the study

The limitations of this study are briefly stated below. The research sample selected is drawn from Automobile Industries in Pune region, which are certified during the period of 2002-2012.

1. Due to time constraints the research is restricted to large scale Automobile industries in Pune region, which are ISO certified during the period of 2002- 2012.
2. Due to the scarcity of research journals and articles on ISO 9001:2008 in context to Indian scenarios and also with special reference to human resource practices, it is observed that there were few limitations which implies the need for research on topic under study.
3. The impact was studied from subjective point of view due to the constraint of getting financial performance improvement because of the human resource practices post ISO implementation. So it might have created a situation which doesn't capture the real state of the automotive companies, which in this case are the human resource practices.
4. Since the present research uses a cross-sectional design, where the data was collected by the researcher at once (i.e. at only one point of time), it leaves the researcher with the inability to capture the long term effect of ISO 9001:2008 on human resource practices. Since such big changes like ISO and that is also organization wide; its results evolve over time it is important to look for a long term study of these systems.

5.5 Future Scope of the Study –

Every research can be further continued to study it in new perspective, new findings and new knowledge

1. Research study can be conducted for other industries which have implemented ISO 9001:2008 such as pharmaceutical, Information technology etc...Comparing their results with respect to human resource practices may highlight some crucial issues.
2. Research study can be customized to understand impact of ISO 9001:2008 on other areas than HR such as operation performance, financial performance etc
3. A longitudinal study of managers of large scale automotive companies would be definitely beneficial to find out the extent to which the impact of ISO 9001:2008, as it will help to study impact of ISO over a length of time.
4. A study can be carried out for comparing organizations with domestic vis-à-vis global companies who possess ISO 9001:2008 Certification.
5. Similar research in service sector is also welcome as ISO is becoming friendlier to Service sector organizations. Traditionally, ISO was more aligned with manufacturing sector and initial versions were popular there. Now with the increase in service segment and ISO certifications, it will be advisable to check impact of ISO in that area.
6. A large number of organizations in MSME (Micro, Small, and Medium Scale Enterprises) segment are already ISO certified. Similar impact assessment can be guiding lamp for them.

Chapter – 6

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