Chapter 4

Data Analysis & Interpretation

4.1. Background

In order to understand the IR one needs to find out how employees do feel in the organization. What is their emotional connect with the company because the IR primarily relates to their emotions and the way they experience things at the workplace. Subsequently to take forward the IR study a three level survey was done in the several companies to understand the Industrial Relations dynamics and various influencers, impacting the same. IR is a process of building sustained relationship among its different stakeholders primarily consisting of – shop floor workers, union leaders, front line officers and management staff. These are the main actors/ stake holders of IR in a company. Hence the core of IR lies in understanding the relationship among these main stakeholders, their ability to relate with each other, appreciating the needs, concerns and issues of each other. The level of trust and respect for each other’s targets and concerns, all this sets the foundation for their relationship. How these parties cooperate with each other and resolve issues in times of stress and strains are some of the criteria, which govern their relationship and give a feel of future business aspects of the company.
Therefore to gain a deep understanding on the factors which influence the level of mutual trust and respect in the relationship several methods were adopted to gather multi point data. A questionnaire was used for all the target population. Besides questionnaire, for the senior management and the union executive committee members the researcher also used a Guided Questionnaire to seek qualitative inputs. and a Focus Group Discussion was also adopted for the middle management/ frontline officer’s level as well as the union committee members. The multiple methods had a common thread to collect data and validate data across 7 Pillars which were identified by the researcher as those being pertinent to the thesis and they are:

1. Union Management Cooperation
2. Mutual Regard
3. Apathy
4. Joint Participation
5. Trust and Fairness
6. Hostility and Aggression
7. Employee Involvement

Each pillar attributed a set of questions from the questionnaire. The questionnaire had a seven point rating scale to seek participants’ responses on each of the questions. The overall responses of each of the question were linked to the respective pillar to compute the average score of the pillar.
4.2. Profile of Respondents

As mentioned hereinbefore, IR relationship is governed at different levels in a company and each level influences the relationship in IR scenario. Therefore multiple methods were adopted to collect the data from:

1. Shop floor workers—(responded to a questionnaire.)
2. Union Office Bearers namely the President, Vice President, Treasurer and General Secretary. (were part of the questionnaire as well as Guided Discussions).
3. Union Committee Members. (filled questionnaire and participated in Focus Group Discussions)
4. Frontline officers on the shop floor. (responded to a questionnaire and Focus group discussion)
5. Senior Managers responsible for Company Level IR, Business Head and Plant Head. (Questionnaire and Guided discussions with them)
6. Plant HOD who work on the shopfloor. (Questionnaire & part of the Focus Group Discussion)

However, every category of respondents essentially responded to a questionnaire, which was further analyzed to arrive at meaningful conclusions.

There were a total of 284 respondents of which 55 (19%) were members of the management staff and 229 (81%) were workmen category.
The target population which participated in the questionnaire /survey represented the below levels in the companies:

As can be seen from the below experience profile all the respondents were knowledgeable about the happenings within their organization and were aware about the external environment and its likely impact on how the workmen and or management thinking may get influenced. From that standpoint the responses are representative of the true situation existing within the industrial relations environment:
The qualification profile shows a marked variation between management and union / workmen. More than 85% of the management staff is graduates and above, within the union / workmen only 90% are under-graduates. However, this does not necessarily impugne the IR scenario as it is conditioned by many other factors as will be seen in the subsequent portion of the thesis.
Chart 4.5: Qualification of Shop Floor Workers and Union leaders

The extent of education is low in the respondent workers as 90% of the workforce is undergraduate. Most of them studied up to tenth class. However, the scenario is different in case of frontline officers on the shop floor as education is much higher in their case, as shown below -

Chart 4.6: Qualification of Frontline Officers on the shop floor

More than 80% of the respondents have more than 10 years service. This indicates that the responses that they would give to the various
methods of data collection would be knowledgeable and borne out of experience.

Chart 4.7: Work Experience of the Respondents

4.3. Data Collection Tools & Methods

The sequence in which the data was collected was the same in every respondent company. The sequence is top down. It is so because of the belief of the researcher that the top management policies, to a very large extent determine the course of events that occur in a company. Hence in line with this thought process the first set of data collection was done with the senior management using questionnaire and a guided discussion method which used a open ended approach so as to allow a free flow of thoughts and also gain an understanding on the underlying philosophy that the top management has in terms of dealing with labour and union.
Similarly the second stage was with senior-most office bearers of the union namely the President, Vice President, Treasurer and General Secretary. In some instances only one or two of the listed office bearers were available.

In the third stage, interaction was with the Heads of Department in the Plant and whose performance related to the output of the plant. In the Fourth stage, it was with the union committee members. The Fifth stage consisted of administering the questionnaire covering the 7 pillars to the front middle management/line officers. And the last element of data collection was administering the questionnaire covering the 7 pillars to the shopfloor workmen who were randomly selected to represent all the departments in the plant. The data gathered in the guided discussions and the focus group discussions find its place in the findings, observations and conclusions.

4.4. Data Analysis

For the purpose of testing the hypotheses, data was collected with reference to seven important aspects of the problem under study. Each aspect was named as a pillar. For each pillar, the sub-aspects were identified and extracted using a number of questions. Thus, there were seven pillars. Presented below is the data for each pillar and within the pillar each question responses are presented in a graphical form:
Pillar 1: Union – Management Cooperation

Statement 1. Union and Management are committed to make the organization a better place to work

The responses of the respondents show that, 184 respondents (65%) agree that in their organizations, both the organization and the union(s) are committed to make the organization a better place. In most organizations the union and management have been supportive to each other on this front. However, if one were to observe the graph carefully, it is evident that the distribution of responses follows a normal distribution curve indicating virtually that more or less most respondents agree with the statement with neither a strong acceptance nor rejection. This is also perhaps true given the situational nature of union management relationship which shapes the union management relationship.
Statement 2 - Grievances are normally settled promptly in this organization

Chart 4.9: Prompt Settlement of Grievances in the Organization

In most organizations the union and management are committed to settling grievances promptly. This is a very positive data that the respondents have provided indicating that there is a significant attempt being made by both the parties to resolve the grievances as soon as possible. This probably is an indication of maturity level in the industrial relations scenario where time and again it has been proven that if issues are allowed to fester then they blow up into huge unmanageable problems incurring high cost in terms of time effort and cost to resolve. This is a very positive and affirmative finding of the research.
Statement 3 - Management and unions cooperate to settle disputes in this organization.

Chart 4.10: Cooperation to Settle Disputes in the Organization

In most organizations, union and management cooperate to resolve disputes amicably. Post the onset of the market economy in 1991, the union power to create disruption has significantly diminished with the abolition of the license raj. This makes it simpler for the managements to transfer manufacturing activities through a number of means such as setting up a new plant, outsourcing, and engagement of contract labour as outworkers and so on. This has eroded the ability of the unions to cause disruptions by way of direct action on the shop floor. Realizing this the unions are adopting a more conciliatory approach to resolution of disputes and issues which is borne out by the data gathered by the researcher.
Statement 4 - Management and Union don’t indulge in knit-picking and issues are resolved promptly.

Chart 4.11: Knit-picking & Resolving Issues in the Organization

It is not correct to say that union and management constantly indulge in knit-picking as per the data gathered by the researcher. Earlier it has been the experience of the researcher that even small minor non-issues would be constantly contested upon by both the parties. It was probably because they had the luxury of operating in a protected market. Now with the opening up of the economy, they realize that issues and problems need to be resolved on merit and not on prestige or ego. Loss of time to resolve issues leads to unintended consequences which can harm the interest of the company in the market place with there being many competitors. This is perhaps the driving force not to indulge in unnecessarily prolonging discussions but coming to quicker resolution one way or the other.
Statement 5 - Management / Union seldom oppose the changes advocated by union/management here

It is not true to say that every union / management suggestion is opposed by the management / union. In fact the data shows otherwise. Clearly neither party is opposing for the sake of opposing. This is a good sign as it indicates a constructive dialogue taking place between management and union on changes which are required by the organization. These changes are mostly in line with the company requirement to maintain its market position by ensuring continued supply to the market place and maintaining its share of the market in an otherwise toughly fought competitive scenario. This is also indicative of the fact that union realizes that in more ways than one the fortune of its constituents are linked to the fortunes of the company and hence this change in behaviour of both the parties.
Over all Pillar Score : Union-Management Cooperation

Chart 4.13: Overall Score of the Pillar Union-Management Cooperation

Union Management Pillar aggregate score is 5.4 and on each question except question No.1 response has been 5 and above indicating that the union and management are in a cooperation mode. The researcher summarizes that whether it is a matter of survival or of maintaining a dominant market position the fact remains that union and management are set on a course to look at the issues and challenges faced in a positive manner such that the relationship actually results in better acceptance of change required in line with the market needs. This finding augurs well for the state of industrial relations in the country and a sustaining effort will ensure sustainable competitive advantage to the Indian manufacturing sector in the days to come.
Pillar 2 : Mutual Regard

Statement 6 - Union and Management have respect for each other’s goals.

Chart 4.13: Respect for Each Other’s Goals

The data very clearly indicates that the union and management have mutual regard. Regard for each other’s concerns has come about due to better communication and abandoning the earlier methods of managing industrial relations in an opaque manner. There are several contributory factors to this such as amendments in the company law over a period of time and the enactment of the 2013 Companies Act which makes it mandatory on several areas to make disclosures in the annual report of the companies. So what was previously a black box, confusion, normally labelled as conspiracy of the management not to be sharing enough data with the union and workmen has been reduced to a very large extent making the management of company more
transparent. This is perhaps the most important underlying reason for demonstration of appreciation for goals being pursued by both the parties.

**Statement 7** – There is a great deal of concern for the other party’s point of view in the union-management relationship.

![Chart 4.14: Concern for Other Party’s Point of View](image)

Union and management show great deal of concern to each other’s point of view. The union and workmen have a much higher appreciation of what will happen to job security of the organization does not grow as they have seen from real life examples in and around the location where their work sites are as well as in the community where they reside. As a result, the union and workmen are showing more appreciation of the concerns expressed by the management. Also to some extent managements have realized that keeping union
and workmen in the dark by not giving factual information is detrimental to the long term wellbeing of the enterprise and as a result are more open and willing to share real data and information on the state of the company with the expectation that the union and workmen will respond by doing their bit in enhancing the market position of the company as well as the reputation of its products and services.

**Statement 8** – The parties exchange information freely in this organization.

![Chart 4.15: Exchange of Information Freely in the Organization](image)

There is free flow of information within the union and management. In today’s times information technology has created a level playing field in so far as information about their own company, competition, government policies, new entrants, and substitutes for company products, cheaper imports and the like are concerned. So when the
management shares the data and information on the company standing the union and workmen are able to observe the consistency in what is being stated by the management with the data available in the public domain. This is what is fuelling greater credibility in the exchange of information between the parties and hence the free exchange of information is a welcome step in bettering the relationship between union and management.

Statement 9 – Both management and union have faith in bilateral talks.

![Chart 4.16: Faith of Union and Management in Bilateral Talks](image)

There is a general belief in Bilateralism within union and management. Over a period of time the union and workmen have experienced and also seen many other instances of other companies, unions and workmen that it takes a huge time to resolve any dispute through the
judicial system. Neither has the time for such a dispensing. In the light of this union and managements have realized that it is better to resolve issues one way or the other in a manner that is acceptable to both the parties such that equity is maintained and a win-win situation is reached. This is the main driving force for reaffirming faith and trust in bilateralism and the same is borne out by the data represented in the graph mentioned above.

Over all Pillar Score : Union-Management Mutual Regard

![Chart 4.17: Overall Score for Pillar – Mutual Regard](image)

Aggregate score basis the responses given by all the participants to the questionnaire under the Mutual Regard 5.3 reflects a very high score and weightage given to mutual regard indicates that there is a
large amount of sharing of information and a faith to a large extent in conducting bilateral talks. Ultimately, neither party by and large is interested in prolonging disputes nor in not resolving problems because it does not serve the needs of other party is a realization which is evident from the empirical data gathered. This is also an indication of the fact that industrial relations in most organizations today have reached a stage of certain maturity which transcends colour of the union flag or the ideology. The only thing that is working in the system today is how do we ensure that the gains of change are shared in an equitable manner so that progress is achieved quickly and swiftly so as to be ahead of the curve of change in the market place to grab a larger share of market and revenue.

Pillar 3: Apathy

Statement 10 - Generally, employees have much interest in the quality of union-management relationships.

Employees have a moderate level of interest in what happens between union and management in the normal course of events. The workmen ultimately have either nominated or selected or elected their representatives. They have trust and faith in the leadership of the union. Should this be otherwise on the next occasion the leadership is changed. The power is in the hands of the constituent workmen. Hence
the workmen at large go about doing what is expected of them at their workplace and don’t unnecessarily interfere or instigate of pressurise the union leadership to achieve sectarian individualistic goals.

Chart 4.18: Employees’ Interest in Union-Management Relationship

This is a very good development as it enables the union leadership to act with freedom and without unnecessary pressure to fight for at times illogical demands put forth by their constituents in each and every aspect of the union functioning with the management.

Statement 11  - Workmen in this organization are committed to the union(s).

The score indicates that workmen more often than not are committed to the union. The unions have been now in a state of equilibrium in
most organizations across the country for a long period of time. With the diminishing interest of central trade unions to actively increase their membership base the instances of insurgent unions has dramatically reduced. The erstwhile union leaders who indulged in such acts have found their way into the political parties and that is what their objective was in any case.

Chart 4.19: Workers’ Commitment to Union(s)

Free market economy does not make it easy for a new union leader to emerge by raising unrealistic aspiration by demanding stupendous increases on the management as they also have come to realize that over a period of time the actual wages pf the workforce are 5 times or more than the specified minimum wages as per the statute. In this scenario, inter union rivalry has reduced and in fact the incumbent
unions are communicating more on market and economic realities and what is expected of them and the workers to continue in employment until retirement which is one of the big challenges facing workers today. Hence as the old adage goes a known devil is better than an unknown angel is perhaps driving overt commitment to the existing unions at the workplace.

Statement 12 – There is continuous communication between Management and Union(s) in this organization.

Chart 4.20: Extent of Continuous Communication

In most cases there seems to be continuous union management talks. This is especially true because of the post 2008 financial meltdown globally which impacted the whole planet. Union and workmen are keen to understand the reasons of the global meltdown. They have
seen how the work in their plants has been adversely impacted by the meltdown. How several companies have had to close down. What has happened to interest rates, inflation and real income of the workmen in terms of purchasing power. This has necessitated a continuous dialogue between union and management as well as with the workmen at large as to how the economic conditions are impacting their company and what is it that needs to be done to overcome these challenges. The education initiatives by many managements and union individually and together have brought about a greater appreciation of the economic realities in which the companies operate. This has been possible only because of the initiatives taken by both the parties to continuously communicate with each other and also with the workmen at large.

Statement 13 – Workmen here express interest in the outcome of talks between Management & Union(s).

Workmen are keen to know what is happening between union and management. After all the policy making body for the union is the union executive who is in dialogue with the management representatives on a continuous basis. Whilst they may not be indulging in nagging union representatives in furthering sectarian points of view there is a definite interest that workmen have in what is happening in the talks between union and management.
This is the reason why it has been observed by the researcher that most union executive members hold a scheduled monthly meeting to brief all committee members on what is the state of the company and the issues or problems which have been resolved / the level to which understanding has been reached. The committee members in turn brief the workmen in various departments and sections across the plant within a day. The social media like whatsapp also helps in ensuring speedy dissemination of information on decisions reached irrespective of the location the worker may be in and the worker is updated on real time basis. It is a matter of record that 99% of workers today are connected by social media with their union and other interested constituent bodies. This proves to be a very powerful tool in ensuring speedy accurate and complete information to all concerned.
Statement 14 – Management and union rarely resort to litigation and third party intervention to maintain industrial relations.

There seems to be a tendency of not resorting to litigation. The long term experience of litigation has shown to all that it is costly time consuming and even if the benefit is derived its too little too late. It is much like the operation being successful but the patient dying. Thus the tendency on part of both the management and the union is to resort to litigation only if there is a substantive point of law to be validated or challenged. But with over 60 years or more of existing laws being in place, there are very few and far apart such aspects left to be really challenged for interpretation or validity or applicability or for being ultra vires.
Aggregate score of Apathy pillar is 4.3 and on each question response has been less than 5 indicates that workmen are not in a negative state of mind when it comes to viewing the union management relationship. Clearly they are interested in knowing what is happening and that their urge is being met to a very large extent through the direct communication in person as well as by social media is being clearly observed in the data. The only question where there seems to be some sections of the workmen who are in favour of litigation as a means of resolving issues is few and wide apart. This is a good sign for growing bilateralism within the overall industrial relations systems in the country.
Pillar 4: Joint Participation

Statement 15 - In this organization, joint management-union committees achieve definite results.

Joint committees wherever they exist show a marked tendency to be accountable for the outcome. The power of joint consultative mechanism has been proved to be a powerful initiator of change. No amount of legislation could have achieved this. What has happened is due to the forces playing in the market place making it incumbent on the parties to establish various Forums for exchange of ideas data and information for betterment of the company and consequently the
workmen. The richness of the process is borne by the fact that today it takes much less a time than at any other in previous times to implement change by the route of the joint consultative method.

**Statement 16**—Workmen have a positive view on joint management-union committees here.

![Chart 4.25: Positive View-point on Joint Committees](chart)

The workmen at large have a position disposition to union management joint committee functioning. The joint consultative mechanism takes into account the views of the workmen at large and those impacted by the change in particular. This mechanism improves the quality and predictability of sustaining the change that is being implemented as it then has the full commitment of all concerned. There
are no blurred areas. Everything comes into the open including hidden agenda that someone may harbour and thus makes the process transparent and one of integrity. Naturally, workmen and union fully support and nurture the change and to the extent that both management and union are willing to take a fresh view should circumstances change.

**Statement 17**—Joint management-union committees are a means of implementing changes in this organization.

![Chart 4.2: Joint Committees – Means of Implementing Changes](chart)

Very clearly workmen believe that joint union management committees look after their interest when it comes to introducing change in the organization. With the involvement of wider sections of the workforce and those impacted by the change in particular, unintended consequences come to the fore which hitherto may not have been anticipated or visualized by those initiating the change. This proactive
initiative helps to resolve the unseen problems before they arise. Since the process involves as vast majority involved in the change, the execution of the same becomes smooth, predictable and complete.

**Statement 18**—In joint meetings, management and union document and share minutes of meetings signed by both the parties.

![Chart 4.27: Sharing of Minutes of Meetings](image)

Most times there is documentation of the proceedings between union and management. This institutionalization of relationship is perhaps the most crucial aspect of ushering in transparency and integrity of actions. The documentation is not because there is lack of mutual belief. The action is more to document and track the way in which decisions are taken and at a later date to understand from data the underlying
reasons which guided the decisions. This is critical because at the time when the decisions are reviewed it is reviewed not on hunches of here say but on fact and documentation done at the time when decision is taken. This is an extremely important step in building professionalism and true transparency.

Statement 19—Management and union strive hard to achieve a win-win conclusion.

![Chart 4.28: Management and Union Strive for Win-win Conclusion](image)

There is a conscious effort on part of union and management to arrive at a solution acceptable to both the parties. The union would never wish to sell the interest of the workmen at the altar of expediency and the same if true for management who would not like to dilute the stated
position as required by the market forces. This positioning leads to a very interesting intense and passionate dialogue between the parties. In a situation where there is mutual respect and belief, a viable solution will always be arrived at as that is in the best interest of both the parties. A deadlock only ensures loss of company position in the market place which is not in the interest of either party. Hence, each strives for a win-win situation.

Statement 20—Management and union jointly demonstrate a sense of urgency in implementing change.

There is evidence to indicate that there is generally a sense of urgency demonstrated by the parties to implement the changes. Today change is not an option or a luxury. It is a necessity for being alive in the
market place. The more one delays action the larger is the delay in responding to the needs of the customer. The customer in the meantime has no special love or affection for any one company. The customer is interested in getting the best product at the most competitive price. Today post license raj, there are many who can provide the product or service as good as if not better than another company. This sense of realization seems to have seeped in both the union and management which is leading to quicker resolution of issues between the parties.

Over all Pillar Score : Joint Participation

![Chart 4.30: Overall Score of Pillar – Joint Participation](chart)
Union Participation Pillar aggregate score is 5.2 and on individual question wise response has also been 5 and above indicating that whenever there is union management joint participation in addressing issues the resolution of the same is done with a sense of urgency and in a mutually acceptable way. Several factors such as market dynamics, technological changes, changing customer / consumer preferences, emerging and new business models, changes in government policies are all contributing to a sense of realization in the union and management that if the change is not implemented in a speedy manner they will be out of the race and consequently lead to job insecurity. This has forced managements to earnestly pursue formation of joint councils / joint participation in implementation of changes and the good thing is that the realization being mutual is helping and will support in future as well to make Indian industry more and more competitive.

**Pillar 5 : Trust / Fairness**

**Statement 21**—The collective agreement is regarded as fair by employees in this organization.

Employees in the company view collective agreements as being fair. With the high level of transparency, access to huge amount of data in the public domain, widespread information available on regional
practices is changing the tenor in which wage negotiations are taking place today.

Chart 4.31: Viewing Collective Agreement as Fair

The discussions are more data based and continuously dovetail into impact on company profitability and competitive position. This is one of the foremost reasons as to why workmen are able to see that the collective agreements arrived at are fair and just to both the parties.

Statement 22–The parties in this organization believe in keeping their word.

There is a strong evidence to support that both union and management keep to the given word. With the changes in communication
technology, widespread use of emails, documentation of discussions, availability of data, it is very difficult to rescind from the given word or understanding reached unless it is done consciously and in agreement by both the parties.

Chart 4.32: Both Parties Believe in Keeping Word

Also a fair level of transparency is ensuring that the previous methods of divide and rule and of intrigue and conspiracy and the like find little or no place in today’s world of industrial relations. Hence the researcher is actually not at all surprised by this finding.

Statement 23—In this organization, negotiations take place in an atmosphere of good faith.
There is evidence to demonstrate that negotiations are held in an atmosphere of good faith. In almost all the plants where the researcher did the data analysis the union leaders were elected by secret ballot. The fairness of the ballot was ensured jointly by the management and union and the elections were held in an orderly manner in most instances inside the plant premises. This being the case, the elections were held in a neutral atmosphere and hence the elected representatives have the mandate of the workers. The management more often than not has only a single point agenda and that is to enhance the competitive positioning of the company. It is not interested in knowing the colour or ideology of the elected representatives as they have been elected by the workers in a fair and just manner. This being the case, it is quite the case that the negotiations are held in an atmosphere of good faith.
atmosphere of mutual respect and trust with each party strongly driving its agendas and ultimately finding a middle path of settlement. Hence it is no surprise to the researcher that the negotiations are held is good faith is the verdict of the respondents.

Statement 24—Workmen generally view the conditions of their employment as fair in this organization.

![Chart 4.34: Conditions of Employment Viewed as Fair](chart)

Most times workmen view their terms and conditions of employment as fair. The process of negotiations has been covered in the previous statement number 24. That being the case the outcome of the negotiations is viewed as fair. There is one more reason as to why such a finding has emerged. That is the democratization of union
functioning has made it incumbent on the union executive to take the views of its constituents prior to raising the charter of demands. The same democratization process has also made it incumbent for the union executive to share the business needs as enunciated by the management at the commencement of the negotiations. Also a good practice being followed by most negotiating committees is to establish some rules and standards of behaviour on part of the negotiating team members on behalf of the management as well as the union. This makes the entire process institutionalized and properly organized. These are the underlying reasons perhaps for the respondents viewing the out of the process as one which is fair to all concerned.

Statement 25–A sense of fairness is associated with union-management dealings in this place.

Chart 4.35: Sense of Fairness in Dealings
By and large the workmen view dealings between union and management as being fair. The democratization of the union as well as the higher level of communication by the management in a transparent and honest manner notwithstanding sharing data which is authentic and same as that available in the public domain creates an atmosphere of inherent trust and respect. With this being the case, the discussions between the parties are issue and data based which brings about credibility to the outcomes as there is a rationale for anyone to see as to how the decision / agreement was arrived at. This is how the respondents view the dealings between union and management as being fair.

Over all Pillar Score : Trust / Fairness

![Chart 4.36: Overall Score of Pillar – Trust/Fairness](image)
Aggregate score on Trust & fairness is 4.9 and on an average score for each question has within between the range 4 to 5 indicating that by and large workmen view the relationship between union and management as fair. For all the above reasons mentioned which include data integrity, democratization of union, continuous and authentic communication, union consulting workmen prior to raising the demands on the management and the like have a positive impact in building transparency in relationship which in turn increases overall trust and fairness between the parties as also between workmen and their supervisors.

Pillar 6: Hostility / Aggression

Statement 26–Union and management in this organization tend not to be hostile to each other.

There is a no sense of underlying hostility among workmen against the management. With the advent of transparent and honest communication, with democratically elected representatives of the workmen, with the realization that sustainability of employment is dependent on continuous growth of the enterprise, with the realization that plant is mobile and can move to any other more better suited location, with the knowledge that cheap and willing contract labour is
available to do the work; the hostility factor has all but receded to the deep background in the emerging industrial relations scenario.

Chart 4.37: Hostility between Union and Management

Statement 27–Union(s) don’t use threat or sanctions to get their way in this organization.

The union does not use threats or sanctions to achieve their goals. This is because the biggest weapon of the union to withhold production in a large number of cases has been nullified by the fact that the plant can be relocated to a new geography, outsourcing can be resorted to, companies in most cases can even in times of crunch afford to keep plants idle has made the union to reconsider its mechanism of using threats and sanctions against management.
Statement 28—The parties do not quibble/fight over minor issues and resolve them amicably.

Chart 4.38: Use of Threats or Sanctions by Union to get Work Done

Chart 4.39: Quibble/Fight over Minor Issues
There is some quibbling over minor issues between union and management. Experience has shown that prolonging discussions over minor issues gives rise to extraneous factors entering the dispute and then it becomes more complex to resolve for both the parties. Rather than allowing small issues to fester, it is expedient to resolve them. After all, union management relationship is one of give and take. Management gives in some and union gives in some others and an equilibrium is established as evident from the data recorded by the respondents.

**Statement 29**—The best way to get anything accomplished here for any party is to resort to discussions.

![Chart 4.40: Discussions as the Best Way to Follow](image)

By and large workmen accept that the way to get things done from the management is by resorting to discussions. The management is an era
of stiff competition and fierce battle in the market place not only from traditional domestic players but from new domestic players as well as imported material being available is keen to resolve amicably issues across the table. This is notwithstanding the several options it has as mentioned earlier to counter any threat or sanction from the union which is unreasonable. If push comes to shove the management today has the willingness and the ability to retaliate. This is fully recognized by the union and workmen at large. In this kind of a scenario both parties enter the discussion from a position of strength. Also as is well known strength respects strength. Hence meaningful dialogue and discussions is what happens and a win-win situation emerges. This is what has been observed by the respondents as evidenced by the scoring given by the respondents.

Over all Pillar Score : Hostility / Aggression

![Hostility / Aggression Chart]

*Chart 4.41: Overall Score of the Pillar – Hostility / Aggression*
Over all aggregate score for the Hostility/Aggression pillar is 5.4. Each question reflects a score close to 5 indicating a belief in discussions as the best way to resolve issues however contentious they may be as that is what is in the best interest of the parties.

**Pillar 7: Employees’ Involvement**

Statement 30–Management seeks union(s) and workmen’s involvement while initiating new changes.

*Chart 4.42: Management Seeking Workers’ Involvement in Changes*

Very clearly management seeks union and workmen participation in making changes. It is the worker on the floor, who knows best what is the most effective way to improve process and systems and which
leads to better quality and on time performance. Managements recognize this. Hence the number of companies that have employee involvement programs ingrained in their working like TPM TQM Joint Participation are enormous. Coupled with a reward and recognition programs it becomes a very potent instrument of change which is widely being acknowledged by its implementation.

Statement 31—Management encourages workmen to visit market / customers to gain first-hand knowledge of how the company is seen by the customer.

![Bar Chart]

*Chart 4.43: Worker Encouragement to Visit Customers/Market*

Managements today encourage workmen to visit the market / customers to see for them as to what customers feel about the work they do. This has been found to be a very productive method to
sensitize workmen on how the work they perform impacts the customer / consumer and the feedback that they receive from the customer / consumer of the goods and services they produce / provide gives them an insight on what can be done better. This has a multiplier effect on harnessing that knowledge on the shop floor for making improvements in the work they perform. There is nothing more powerful than hearing from the horse’s mouth so to say and that has a big impact on the way the work is done.

Statement 32–Management makes conscious efforts to reach out to the families of workmen through the house magazine, education/tuition classes, educational excursions for workers’ children, ladies club to promote family well-being and the like.

Chart 4.44: Management Reaching Out to the Workers’ Families
In most cases, it is seen that management tries to get involvement of the families of the workmen through various Forums. Involvement of the families from spouses to children builds a sense of family pride in the company in which the worker is employed. There are more than a 100 ways in which a company can reach out to the family and showcase its concern for their wellbeing. In all such cases where intense family involvement id genuinely done and not as a mere public relations exercise the benefits have been enormous. There have been instances where the family members and community has restrained the workers and unions from agitating and forcing them to find a middle path. Such is the power of family involvement.

**Statement 33**—Union and workmen have a positive outlook on change and enter into productive discussions on the same with management.

The union and workmen are not averse to making changes in the discussion with the management. Today the union and workmen realize that the only constant in life is change and change they must else they have seen to a vast many who have perished. The union and workmen also recognize the multiple options that the company has to ensure that the product or service is made available in the market place.
A combination of all these factors leads the union and workers to engage in meaningful dialogue. They understand that change is inevitable and not negotiable. They also understand that, that being the case it is best to resolve through dialogue rather than any other means. This is clearly shown by the scoring done by the respondents.

**Chart 4.45: Union and Workers’ Positive Outlook on Change**

Over All Pillar Score – Employee Involvement

On Employees’ Involvement Pillar aggregate score is 5.5 and each question reflects a score which is above 5 indicating a sense of realization among unions and workmen that they need to understand
the business issues and concerns of the market place for sustainability of operations at their plants.

Chart 4.46: Overall Score of the Pillar – Employee Involvement

This is powerful instrument available to the management to foster good relations with the family of workers, build a reputation and brand for the company and effectively use it for accelerating change to meet the market needs of today and tomorrow.

Responses on Complementary Aspects

Questions were asked to the respondents regarding various complementary/supportive aspects of the phenomenon under study. These responses have been useful for endorsing the viewpoints earlier
expressed as a confirmatory test. It also added value to the exploration of the quality of industrial relations. The analysis has been shown below:

**Question34**—In this organization, for resolving their issues, whom do people approach?

*Chart 4.47: Preferred Choice for Resolving Grievances*

The overall graphic response as shown above reflects a distributed response among the participants. However, 44% of the respondents have chosen the HR department to resolve the issues. Next most important is the union. Supervisors have registered some presence (16%) in the process.

**Question35**—What is the frequency of union-management meetings?
Response to the above question reflects in the above pie chart that largely regular structured communication seems very low with just 20%.

**Question36**– Do you use any of the social media – mobile phone SMS, Whasapp, Facebook, Linkedin, Twitter?
As shown above a very high percentage of employees are well connected and use social media for communication on a daily basis.

**Question 37**—Do you think that in your organization, management and union cooperation is maintained at a good level?

**Chart 4.50: Perception of Relationship between Union-Management**
Most of the workmen feel that there is good level of cooperation between union and management.

**Question 38**– Do you think that in your organization, stability is maintained in operating in plant?

![Chart 4.51: Perception on Stability of Operations in Plant](chart)

Clearly majority of the workmen feel that there is stability of relationship in respect of industrial relations in their plant.

**Question 39**– Do you think, your organization involved employees in all organization decisions?
Majority of the workmen do not feel involved in decision making within the organization.

**Question 40**–Do you think your organization plant progress is satisfactory?

*Chart 4.52: Perception on Employee Involvement on Decisions*

*Chart 4.53: Perception on Organization Plant Progress*
Large many workmen feel that there is progress in their plant. It is indeed true that had the union and workers not agreed to change they would not have seen the progress made by their plants.

### 4.5. Hypotheses Testing & Interpretation

As mentioned earlier, responses of the respondents were obtained on a variety of scales. Several statements were presented for the opinions and the responses are analyzed in earlier sections. All this data was grouped meaningfully as per structure of the questionnaire and was used for testing the hypotheses with suitable statistical tests using SPSS. The hypotheses were tested for acceptance/rejection. The analysis and interpretation is summarized below.

**Hypothesis 1**

There is an association between Management and Union co-operation and stability in operating in plant.

$H_0$: There is an association between Management and Union co-operation and stability in operating in plant.
Table 4.1: Association between Management and Union co-operation and stability in operating in plant

<table>
<thead>
<tr>
<th>Chi-Square</th>
<th>Value</th>
<th>DF</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson</td>
<td>28.487(a)</td>
<td>3</td>
<td>0.002</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>32.487</td>
<td>3</td>
<td>0.001</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>2.370</td>
<td>1</td>
<td>0.024</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>284</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The minimum expected Frequency is 25.42.

Cells with expected Frequency< 5 is 0 of 8(0%)

<table>
<thead>
<tr>
<th>Statistics</th>
<th>Value</th>
<th>ASE1</th>
<th>Val/ASE0</th>
<th>Approximate Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contingency Coefficient</td>
<td>0.626</td>
<td></td>
<td></td>
<td>0.04</td>
</tr>
<tr>
<td>Lambda: Symmetric</td>
<td>0.203</td>
<td>0.120</td>
<td>1.581</td>
<td>0.114</td>
</tr>
<tr>
<td>Management and Union co-operation</td>
<td>0.200</td>
<td>0.117</td>
<td>1.564</td>
<td>0.118</td>
</tr>
<tr>
<td>Dependent Stability in operating in plant</td>
<td>0.207</td>
<td>0.144</td>
<td>1.301</td>
<td>0.193</td>
</tr>
<tr>
<td>Goodman and Kruskal Tau: Management and Union co-operation</td>
<td>0.118</td>
<td>0.041</td>
<td></td>
<td>0.008</td>
</tr>
<tr>
<td>Dependent Stability in operating in plant</td>
<td>0.173</td>
<td>0.057</td>
<td></td>
<td>0.010</td>
</tr>
</tbody>
</table>

Number of missing observation: 0
Interpretation:

We can see here that Person Chi-square ($X^2$) = 28.487, $p = 0.002$. This tells us that there is statistically significant association between two categorical variables. Because $p$ value is less than 0.05 due to this we can say that there is association between two variables. The value of the likelihood ratio chi-square statistic is 32.487, with a $p$-value of 0.002, which is significant at 0.05. You could say that the data gives sufficient evidence of an association between two variables. On the above value the Linear-by-Linear Association also reveals that there is association between two variables if the nature of data in ordinal mode because the $p$ value is less than $\alpha = 0.05$.

The last row N of Valid cases shows the number of sample size used for the research. For the present study, it is 284. Below the table SPSS shows some notes these note tell us that the minimum expected Frequency and how much cells are here with expected Frequency in the test statistics. In chi-square, we can measure association between variable with the help of value of Contingency Coefficient (0.626), we can say that there is an association between two variables as the value closer to 1 than 0.

Thus we conclude that at 95% confidence level ($p < 0.05$), we accept alternative hypothesis and we state that, the Management and Union co-operation and stability in operating in plant are associated significantly with each other.
Hypothesis 2

There is Positive Correlation between Management and Union co-operation and Mutual Regard in the Organization

$H_0$: There is no Positive Correlation between Management and Union co-operation and Mutual Regard in the Organization

Above figure is the scatter plot between management and union co-operation and mutual regard in the organization, scatter plot is the best graphical measures to know the relationship between two variables. If we closely observe the scatter plot it reveals that there is positive correlation between these two variables. As scatter plot show significant clustering, so we can say that there is correlation between these two variables.
Table **Pearson Correlations** shows the value of person correlation coefficient is 0.864 between management and union co-operation and mutual regard in the organization that is \( r = 0.864, p < 0.05 \) (one-tailed), and \( N = 284 \). Here we run one tailed person correlation coefficient because literature rendering that there is positive correlation management and union co-operation and mutual regard in the organization.

<table>
<thead>
<tr>
<th></th>
<th>Union-Management Cooperation</th>
<th>Mutual Regard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Union-Management Cooper. Correlation</td>
<td>1</td>
<td>.864*</td>
</tr>
<tr>
<td>Sig. (1-tailed)</td>
<td>.006</td>
<td>.006</td>
</tr>
<tr>
<td>N</td>
<td>284</td>
<td>284</td>
</tr>
</tbody>
</table>

Here we accept alternative hypothesis namely ‘There is Positive Correlation between Management and Union co-operation and Mutual Regard in the Organization’ at \( r = 0.864, p < 0.05 \) (one-tailed), and \( N = 284 \), at significance level 0.006 (p-Value).
Hypothesis 3

There is a positive association of Management and Union co-operation with joint participation of employee

H₀: There is no positive association of Management and Union co-operation with joint participation of employee

For testing above hypothesis we run simple linear regression, the result of simple linear regression shows that the management union co-operation shows positive effect on joint participation of employee. In other word we can say that on the basis of management union co-operation we can predict joint participation of employee in the organization.

The “Correlations” table 4.3 represent the Pearson correlation between Management and Union co-operation on joint participation of employee it calculated .867 at 0.003 significance level; it proves there is strong correlation between these two variables.

The Enter method we implemented for regression analysis in which our outcome variable is joint participation of employee and predictor variable is Management and Union co-operation, these things explain by table Variable entered/ removed.
Table 4.3: Pearson Correlations

<table>
<thead>
<tr>
<th></th>
<th>Joint Participation of Employee</th>
<th>Management and Union co-operation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>Joint Participation of Employee</td>
<td>1.000</td>
</tr>
<tr>
<td></td>
<td>Management and Union co-operation</td>
<td>.867</td>
</tr>
<tr>
<td>Sig. (1-tailed)</td>
<td>Joint Participation of Employee</td>
<td>.</td>
</tr>
<tr>
<td></td>
<td>Management and Union co-operation</td>
<td>.003</td>
</tr>
<tr>
<td>N</td>
<td>Joint Participation of Employee</td>
<td>284</td>
</tr>
<tr>
<td></td>
<td>Management and Union co-operation</td>
<td>284</td>
</tr>
</tbody>
</table>

Table 4.4: Variables Entered/Removed

<table>
<thead>
<tr>
<th>Variables Entered/Removed a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Joint Participation of Employee

b. All requested variables entered.
Table 4.5: Model Summary

<table>
<thead>
<tr>
<th>Model Summary a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Management and Union co-operation

b. Dependent Variable: Joint Participation of Employee

Table Model summery shows the model fit statistics such as it shows the Pearson correlation between Management and Union co-operation with joint participation of employee it’s calculated .867 this value confirm there is strong correlation between these two variables.

Table 4.6: ANOVA Table

<table>
<thead>
<tr>
<th>ANOVA a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Joint Participation of Employee

b. Predictors: (Constant), Management and Union co-operation
R square value that explains how much variability in the Joint Participation of Employee accounted by Management and Union co-operation and this value is .752 that is 75.1%. It means the more than 75% variability in Joint Participation of Employee can explain by Management and Union co-operation, if we consider other factor constant. There is very small difference between R² and Adjusted R² is 0.001 it proves cross validation of model. The values of change statistics also validate the model, and it reveals that model is perfectly fit with F Change is 1460.200 at Significance of F Change is 0 .000. Finally Durbin-Watson test (1.697) confirms that the assumption of independent error is tenable with the present data.

The table labelled as ANOVA shows different values such as model sum of square is 898.905 (SSM), Residual Sum of Square is 296.721 (SSR) and Total Sum of Square is 1195.626 (SST). It explain some other values such as Mean square for the model is 898.905 (MSM) and Residual Mean Square is .616. ANOVA also explains F statistics is 1460.200 at significance level 0.000.

The table 4.7 represents the model parameters, as it provides the value of all predictors related to outcome. The value of t-test with its level of significance represents that predictor making significant contribution in the model.
### Table 4.7: Coefficients of Regression

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>95.0% Confidence Interval for B</th>
<th>Correlations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td>Lower Bound</td>
<td>Upper Bound</td>
</tr>
<tr>
<td>(Constant)</td>
<td>.849</td>
<td>.129</td>
<td></td>
<td></td>
<td>.595</td>
<td>1.104</td>
</tr>
<tr>
<td>Management and Union cooperation</td>
<td>.864</td>
<td>.023</td>
<td>.867</td>
<td></td>
<td>.820</td>
<td>.909</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Joint Participation of Employee
We can write regression equation on the basis of values provided by the table labelled as coefficient of the regression equation is:

\[
\text{Joint Participation of Employee} = 0.849 + \text{Management and Union co-operation} (0.864) + \varepsilon
\]

The above graphs (Histogram and P-P Plot) confirm that the assumption of linear regression that is “normally distributed error” is tenable with present data and it also proves the difference between model and observed data are very close to zero. On the basis of above two graphs we can say that residual of model is normally distributed.
Above graph represent that the assumption of regression analysis that is homo-scédasticity and linearity is tenable with the present set of data, in other word we can say that the data used for analysis of linear regression model show the homogeneity of variance and linearity, as it look like data of standardized residual and standardized predicted value of dependent variable based on model is wide spread across X and Y axis.

Finally we conclude that we accept alternate hypothesis that is “There is a positive association of Management and Union co-operation with joint participation of employee” at $R^2 = 0.608$ at $P< 0.05$ ($p= 0.000$).
Hypothesis 4

There is an association between employee involvement and progress achievement by the plant

H₀: There is no association between Employee Involvement and Progress achievement by the plant

Interpretation:

We can see here that Person Chi-square ($X^2$) = 35.117, $P = 0.032$. This tells us that there is statistically significant association between employee involvement and progress achievement by the plant. As p value is 0.032 less than 0.05 due to this we can say that there is association between two variables.

The value of the likelihood ratio chi-square statistic is 35.117, with a p-value of 0.032, which is significant at 0.05. You could say that the data gives sufficient evidence of an association between two variables. On the above value the Linear-by-Linear Association also reveals that there is association between two variables if the nature of data in ordinal mode because the p value is less than $\alpha = 0.05$.

Below the table SPSS shows some notes these note tell us that the minimum expected Frequency and how much cells are here with expected Frequency in the test statistics. In chi-square, we can measure association between variable with the help of value of Contingency Coefficient (0.756), we can say that there is an association between two variables as the value closer
Table 4.8: Association between Employee Involvement and Progress achievement by the plant

<table>
<thead>
<tr>
<th>Chi-Square</th>
<th>Value</th>
<th>DF</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson</td>
<td>35.117²</td>
<td>5</td>
<td>0.032</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>46.487</td>
<td>5</td>
<td>0.011</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>4.250</td>
<td>1</td>
<td>0.021</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>284</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The minimum expected Frequency is 21.26.

Cells with expected Frequency< 8 is 0 of 12(0%)

<table>
<thead>
<tr>
<th>Statistics</th>
<th>Value</th>
<th>ASE1</th>
<th>Val/ASE0</th>
<th>Approximate Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contingency Coefficient</td>
<td>0.756</td>
<td></td>
<td></td>
<td>0.008</td>
</tr>
<tr>
<td>Lambda: Symmetric</td>
<td>0.123</td>
<td>0.220</td>
<td>1.345</td>
<td>0.233</td>
</tr>
<tr>
<td>Employee Involvement</td>
<td>0.202</td>
<td>0.127</td>
<td>1.213</td>
<td>0.114</td>
</tr>
<tr>
<td>Dependent</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Progress achievement by the plant</td>
<td>0.237</td>
<td>0.224</td>
<td>1.332</td>
<td>0.215</td>
</tr>
<tr>
<td>Goodman and Kruskal Tau:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee Involvement</td>
<td>0.112</td>
<td>0.061</td>
<td></td>
<td>0.013</td>
</tr>
<tr>
<td>Dependent</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Progress achievement by the plant</td>
<td>0.238</td>
<td>0.087</td>
<td></td>
<td>0.018</td>
</tr>
</tbody>
</table>

Number of missing observation: 0
to 1 than 0. The row N of Valid cases shows the number of sample size used for the research. For the present study, it is 284.

Thus we conclude that at 95% confidence level ($p < 0.05$), we accept alternative hypothesis, that is “there is an association between employee involvement and progress achievement by the plant” are associated significantly with each other.

**Hypothesis 5**

There is correlation between Management and Union co-operation and trust of employee on management and union in the organization

$H_0$: There is no correlation between Management and Union co-operation and trust of employee on management and union in the organization

![Correlation between Management and Union Co-operation and Trust of Employee on Management and Union in the Organization](image)
### Table 4.9: Correlation Data for Cooperation and Trust of Employees

<table>
<thead>
<tr>
<th>Correlations</th>
<th>Trust of Employee on Management and Union</th>
<th>Management and Union cooperation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Trust of Employee on Management and Union</strong></td>
<td>Pearson Correlation</td>
<td><strong>.733</strong></td>
</tr>
<tr>
<td>Sig. (1-tailed)</td>
<td><strong>.024</strong></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>284</td>
<td>284</td>
</tr>
<tr>
<td><strong>Management and Union cooperation</strong></td>
<td>Pearson Correlation</td>
<td><strong>.733</strong></td>
</tr>
<tr>
<td>Sig. (1-tailed)</td>
<td><strong>.024</strong></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>284</td>
<td>284</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.05 level (1-tailed).

**Interpretation:**

Above figure is the scatter plot between Management and Union cooperation and trust of employee on management and union in the organization, scatter plot is the best graphical measures to know the relationship between two variables. If we closely observe the scatter plot it reveals that there is positive correlation between Management and Union co-operation and trust of employee on management and
union in the organization. As scatter plot show significant clustering, so we can say that there is probably correlation between these two variables. Correlation table shows the value of person correlation coefficient is 0.733 between management and union co-operation and mutual regard in the organization that is \( r = 0.733, p < 0.05 \) (one-tailed), and \( N = 284 \). Here we run one tailed person correlation coefficient because literature rendering that there is positive correlation management and union co-operation and mutual regard in the organization. Here we accept alternative hypothesis that is ‘There is Positive Correlation between Management and Union co-operation and Mutual Regard in the Organization’ at \( r = 0.733, p < 0.05 \) (one-tailed), and \( N = 284 \), significance level 0.024 (p-Value).

**Summary of Hypotheses Proved and Accepted**

Thus, through the detailed scientific analysis and statistical testing as detailed above, following hypotheses have been tested and accepted

1. There is an association between Management and Union co-operation and stability in operating in plant.
2. There is Positive Correlation between Management and Union co-operation and Mutual Regard in the Organization.
3. There is a positive association of Management and Union co-operation with joint participation of employees.
4. There is an association between employee involvement and progress achievement by the plant.
5. There is correlation between Management and Union co-operation and trust of employee on management and union in the organization.

4.6. Findings and Observations

The present study has formulated and tested five hypotheses apart from other relevant data collection and analysis. Based on the review of relevant literature, data analysis and interpretation as well as the hypotheses, following are the major findings based on the study –

1. Union and Management Co-operation has led to better understanding on issue impacting the workforce with regard to impediments in raising productivity and throughput. Company introduced automation and robotics with the active involvement of the union and workmen.

2. Union and Management Co-operation has led to resolution of many odd / issues which are Policy related. A big MNC, which is an Automobile OEM providing Bus service recently for its workmen from some distant village, despite discontinuing two years ago the Bus service completely, post urbanization of the plant location.

3. When Union and Management are not in a co-operation mode it leads to delay and time-consuming discussions, which hinder the
progress of the company. In a large tractor manufacturing company there has been inordinate delay in agreeing to work method, work norms and output norms on machinery which has been imported at considerable cost.

4. When Union and Management are not in a co-operation mode, it leads to delays in achievement of full output from newly installed and commissioned machinery. In a very large light engineering company the company purchased very sophisticated CNC machines but the same are unutilized to the extent they should be due to breakdown of discussions on who will operate the same.

5. When Union and Management are not in a co-operation mode, it leads to delays in making changes in the workflow and on layout of the Plant for achieving better performance. A large engine-manufacturing factory has changed the layout of the shopfloor for better space utilization and also to reduce mean distance travelled by material. However, since the union was not spoken too it has become a prestige issue and whilst work is being done the benefit of the new investment has yet to be realized in the form of manpower rationalization.

6. When Union and Management are not in a co-operation mode, Joint Forums / Committees don’t function productively which leads to shop floor problem being escalated. In a medium sized MNC food factory the senior management is constantly besieged with
grass root level issues, as there is neither works committee nor any joint council, which can address and resolve shop-floor level problems in an efficient manner.

7. When Union and Management is in a co-operation mode there is rapid progress on cost cutting, work improvement, quality of output leading to On Time Delivery. In a heavy engineering company manufacturing high-pressure components for the power sector, the level of participation in TPM initiatives is almost 100% and there is continuous 5% reduction in cost year on year.

8. When Union and Management are in co-operation mode, there is greater contribution by Union Committee Members on the shop floor and resolution of issues on the shop floor. In a material handling equipment-manufacturing company the union shop committee member and the shop supervisor within a matter of minutes in almost all cases resolve almost all issues raised on the shop floor.

9. When Union and Management are in co-operation mode, there is much more sharing of data and information leading to greater transparency and productive outcomes. In the same material handling equipment-manufacturing company there is a monthly sharing of the targets and achievement with a list of areas for improvement, which are jointly worked on shop floor.
10. When Union and Management are in co-operation mode, there is very less chance of any external environmental issues to adversely impact the establishment. This has been observed in a number of companies where the internal union even if affiliated to a central trade union does not allow any external influences to impact work or relationship with the plant. Some examples are participation in bandhs or to show solidarity with political issues and the like.

11. When Union and Management have mutual regard, there is larger scope for speedy implantation of changes / initiatives. In a large material handling-equipment manufacturing company, the revised production norms are implemented from the same shift during which the long-term wage settlement is signed which also includes increase in output per shift.

12. When Union and Management have mutual regard, the work environment is conducive to acceptance of change as required by market forces. In a large MNC FMCG company quick changes need to be made according to the market demand for its product lines. This necessitates changes in configuration of the production line as well as manning and kind of packing that is used. This happens smoothly in the company across all its locations because of the mutual regard that management and union have to each other.
13. When Union and Management have mutual regard, there is a higher predictability of operation being stable. In the material handling-equipment manufacturing plant, the plant always meets any change in sales program. This predictability in operations is a great strength to the sales team as they are able to keep their commitments to the customer and get a price premium for the same.

14. When Union and Management have mutual regard, the business is more likely to grow and expand. In the engineering company mentioned earlier the management is able to keep to tight commitments on time which competitors find difficult to match essentially because of the mutual regard that exists between management and union.

15. When Union and Management have mutual regard, the Board of Directors of companies are more inclined to further invest in expanding the business. In the material equipment-manufacturing company the board of directors of the company are happy to approve capacity expansion capital expenditure proposals, as they are sure that the management will be able to achieve the projected growth in revenue and profits.

16. When Union and Management have mutual regard, the attrition level in the Plant / Office floor is lower leading to greater continuity
and stability in work outflow. This has been observed in a number of units consistently across industry segments where length of service is far more of the manufacturing officers thereby leading to better control and knowledge retention to address issues and problems in future.

17. When Union and Management have mutual regard, the level of transparency increases which leads to higher predictability in operation. In a large engineering MNC there was a need for factory to work at a pace, which was 20% higher than normal to ensure that the export commitments were met. Though the corporate office had a choice between several manufacturing locations it chose the one we studied due to the predictability the factory worked on because of the mutual trust and transparency existing in the plant.

18. When Union and Management have mutual regard, the company is willing to take an aggressive position in market place viz-a-viz competition. During the peak summer season the marketing department in a beverage company decided to increase cold-shelf space and consequently required increase in supplies to all outlets. The plant met this by producing more than the norm of production agreed only because the union agreed to increasing the conveyor and bottling speed in the plant and workers agreeing to produce more per shift without any additional manpower.
19. When Union and Management have mutual regard, the company is willing to be inclined to increase workforce as per requirements of the business. In the material handling equipment-manufacturing company the management has agreed to increase the permanent workforce with increase in capacity of the plant. This is despite the fact that contract labour would cost the company a fifth of what the permanent labour would cost.

20. When Union and Management have mutual regard, the company shows willingness to share its problems and seek joint solutions. In the engineering company when down market conditions hit the economy the management in consultation with the union was able to save expenditure on employee cost when the union agreed to block closure.

21. When there is a positive association between Union and Management co-operation with joint participation leads to quicker implementation of changes. In the engineering company in power equipment manufacturing the cost is reduced year on year because of useful suggestions by the shop-floor workmen. This helps in increasing the competitiveness of the company in intense competition conditions.
22. When there is a positive association between Union and Management co-operation with joint participation there are many relevant suggestions which come from workmen for improving efficiency on shop / office floor. On an average in the engineering company in the power sector mentioned earlier every workman gives at least 2 suggestions each year that are implementable.

23. When there is a positive association between Union and Management co-operation with joint participation, there are more positive instances where workmen promote the company Brand and Reputation. Every year the material handling equipment-manufacturing company participates in the all India competitions hosted by number of associations promoting TPM and TQM and almost each year gains a position in the top 3 best companies list.

24. When there is a positive association between Union and Management co-operation with joint participation the speed at which a new piece of equipment is operationalized to full production is much faster. In the material handling equipment-manufacturing company any change once discussed and agreed is implemented in the shift in which the union and management reach an agreement on the revised norms of output.

25. When there is a positive association between Union and Management co-operation with joint participation there is a marked
enhancement is safety and environmental matters and improvement in quality of work life. Companies, which enforce safety and environment standards including wearing of helmets on public roads it, is seen that there is far greater cooperation between management and union.

26. When there is a positive association between Union and Management co-operation with joint participation the company demonstrates greater ability in dealing with business / economic cycles. In the engineering company when down market conditions hit the economy the management in consultation with the union was able to save expenditure on employee cost when the union agreed to block closure.

27. When there is a positive association between Union and Management co-operation with joint participation the company demonstrates greater ability in facing new competition. In the engineering company in power equipment manufacturing the cost is reduced year on year because of useful suggestions by the shop-floor workmen. This helps in increasing the competitiveness of the company in intense competition conditions.

28. When there is a positive association between Union and Management co-operation with joint participation the company demonstrates greater ability to overcome internal challenges. In a
situation when there was a major breakdown of a critical equipment in the material handling equipment manufacturing company the best of technicians irrespective of the department where they worked rallied together to overcome the breakdown condition in the shortest possible time.

29. When there is a positive association between Union and Management co-operation with joint participation the company demonstrates greater resilience to overcome product challenges in market place. In the case of an engineering company in the power sector there was a sudden change in the design requirements necessitated by customer, which had to be reworked on the shop floor in terms of configuration of the already assembled pressure parts. This was taken as a challenge by the shop-floor team and there was no delay in dispatching the pressure parts.

30. When there is a positive association between Union and Management co-operation with joint participation the company shows ability to jointly face any legislative change adversely impacting company. In the case of a company where the state government abolished contract labour system in certain parts of the factory the union and management through discussions resolved the issue without any loss of revenue to the company or any major redundancy among persons engaged as contract labour.
31. That there is a positive association between employee involvement and progress achieved demonstrated by widespread participation among workforce suggesting improvements in various aspects of company functioning. Every year the material handling equipment-manufacturing company participates in the all India competitions hosted by number of associations promoting TPM and TQM and almost each year gains a position in the top 3 best companies list.

32. That there is a positive association between employee involvement and progress achieved demonstrated by the rate at which innovations happen in the company. In the engineering company in power equipment manufacturing the cost is reduced year on year because of useful suggestions by the shop-floor workmen. This helps in increasing the competitiveness of the company in intense competition conditions.

33. That there is a positive association between employee involvement and progress achieved demonstrated by improving existing work methods for enhancing throughput. In the engineering company in power equipment manufacturing the cost is reduced year on year because of useful suggestions by the shop-floor workmen. This helps in increasing the competitiveness of the company in intense competition conditions.
34. That there is a positive association between employee involvement and progress achieved demonstrated by not taking narrow sectarian views on issues adversely impacting terms and conditions of employment. In the instant case a company in engineering decided to change the age of retirement from 60 to 58 years. This was achieved through discussions with the union and in such a manner that not a single worker was put to any monetary loss because of the change.

35. That there is a positive association between employee involvement and progress achieved demonstrated by greater investment by company in developing the workforce. The company in engineering sector ensures that all workmen undergo training at least of 5 days each year. This is mandatory and if it does not happen then the shop supervisor is taken to task along with the union representative of that department.

36. That there is a positive association between employee involvement and progress achieved demonstrated by management encouraging workforce to visit market too see how company products perform. In the tyre manufacturing company each year the 25% of the workmen and 100% of the union committee visit the market to understand from the end users the problems and issues they face when they use the company products. These are then converted to TQM projects on which the workmen work-on.
37. That there is a positive association between employee involvement and progress achieved demonstrated by management showing willingness to invest in providing guidance for children of workmen.

38. That there is a positive association between employee involvement and progress achieved demonstrated by management investing in developing the spouses of workmen through various programs. In the engineering company in the power sector there are reach out programs for wives of workmen on household budget, health, personal hygiene, child care, education and the like which helps to improve the quality of home life for the families of the workmen.

39. That there is a positive association between employee involvement and progress achieved demonstrated by management investing in community in which its establishments are located. In the FMCG MNC the company installed a water pump to provide municipal water to residents in a high lying area where the municipal water would not reach.

40. That there is a positive association between employee involvement and progress achieved demonstrated by growth opportunities offered to workforce. In the FMCG MNC the policy of the company dictates that at least 30% of the first line supervisors in the plant and field sales shall be from within the ranks of workmen.
41. There is a correlation between Management and Union cooperation and trust of employee on management and union in the organization demonstrated by the democratic functioning of Union. In almost all the companies studied management assists in conduct of free and fair union elections.

42. There is a correlation between Management and Union cooperation and trust of employee on management and union in the organization demonstrated by active participation of workforce in the functioning of the Union. In all the companies studied it is seen that wherever there is harmonious industrial relations it is because of the perception workmen have on good relations existing between management and union.

43. There is a correlation between Management and Union cooperation and trust of employee on management and union in the organization demonstrated by management proactively reaching out to workforce in times of crisis whether personal or community. In almost all the companies studied it was found that management extends unstinted support in times of personal and community crisis. In one case there has also been a complete rehabilitation of the workers home destroyed during communal riots.

44. There is a correlation between Management and Union cooperation and trust of employee on management and union in the
organization demonstrated by the proactive communication from management about changes in work method/technology to be introduced. In the material handling equipment manufacturing company, it was seen that the union president personally requested the promoters of the company to introduce automation and robots on the shop-floor for better efficiency.

45. There is a correlation between Management and Union cooperation and trust of employee on management and union in the organization demonstrated by the acceptance by the workforce on the work norms and manning on new machines. In a large material handling-equipment manufacturing company, the revised production norms are implemented from the same shift during which the norms are settled.

46. There is a correlation between Management and Union cooperation and trust of employee on management and union in the organization demonstrated by ability to overcome difficulties faced in implementation of decisions adversely impacting quantum of work to be done by the workforce. In a large material handling-equipment manufacturing company, the revised production norms are implemented in the presence of the union and management representatives wherever there are difficulties experienced for any reason whatsoever.
47. There is a correlation between Management and Union cooperation and trust of employee on management and union in the organization demonstrated by ability of Union to properly explain impact of changes to the workforce for its smooth implementation. In the engineering company in the power sector there were major changes to be implemented on the shop-floor due to change in technology. This impacted manpower numbers and workload. Despite the reduction in manpower the changes were introduced at no extra cost to the company.

48. There is a correlation between Management and Union cooperation and trust of employee on management and union in the organization demonstrated by management showing willingness to accept difficulties raised by the workforce. The Auto OEM discontinued bus service when the municipality introduced good public transport facility. However a far-flung village still continued to face difficulty in travelling to work but management stood adamant. However, due to the cooperation and mutual trust that existed between the management and union, it agreed as a special case to introduce the bus service from that village in view of the genuine difficulties experienced by the workmen.

49. There is a correlation between Management and Union cooperation and trust of employee on management and union in the organization demonstrated by the speed at which workforce
aligns itself to the changes in work method. In a large material handling-equipment manufacturing company, the revised production norms are implemented from the same shift during which the long-term wage settlement is signed which also includes increase in output per shift.

50. There is a correlation between Management and Union cooperation and trust of employee on management and union in the organization demonstrated by workforce proactively taking ownership for changes on shop floor. In the engineering company it was seen that the workers when trained on the value created by them through their work become very responsible and study every minute loss. This has led the company to dramatically reduce rework and scrap.

4.7. Concluding Remarks

During the course of the study, it was observed that the indicators of good or bad (quality of) industrial relations are basically seven clusters of variables, which define the relationship between the management and the union. These hypothesized variables and their interrelationship was conceptualized in the form of the proposed hypotheses and subsequently tested to provide a sound and scientific contribution to the body of knowledge on the subject. This has achieved the objectives of the study.