



**A study on employee job satisfaction with  
special reference to the Indian automobile industry**

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## Preface

SDM Research Center for Management Studies (RCMS), since inception, has endeavored to promote research in the field of management education, in various ways. In this direction, in order to promote applied research, the Research Center has taken a unique initiative to encourage the faculty members to carry out various projects in the areas of management.

After completion of the projects, based on the peer review, reports are published with an ISBN number, by the Institute. The projects help the faculty members, and the students, who assist the faculty members for these projects, in various aspects, to gain practical knowledge, in the field of management.

The institute takes into account the time and resources required by the faculty members to carry out such projects, and, fully sponsors them to cover the various costs of the project work (for data collection, travel, etc).

From the academic viewpoint, these projects provide a unique opportunity to the faculty members and the students to get a first-hand experience, in investigating issues and concerns of targeted organizations or sectors, on a face to face basis, thereby, helping in knowledge creation and its transfer.

**Mousumi Sengupta**

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## Executive summary

Job satisfaction among employees is an important aspect of achieving desired productivity target and remaining sustainable. It can be said that, organizations need to nurture both the extrinsic and intrinsic factors, which are responsible for developing and maintaining positive effect on the level of job satisfaction among employees. The present project makes an attempt to investigate the concept of job satisfaction among the employees in the automobile industry, which is one of the key drivers that boosts the economic growth of the country.

A theoretical model has been proposed to measure the employee perception on the job satisfaction in the automobile sector. The proposed model consisted of five factors and each factor was proposed to consist of a number of variables. The factors explained both internal and external work-related issues: Engagement at work, Relationship with boss, Relationship with co-workers, Reward and recognition, Work environment.

A questionnaire was prepared and administered on the entry-level and middle-level employees working in the Indian automobile industry. Based on the Exploratory Factor Analysis of the data, collected at three different phases by administering the questionnaire, it was revealed that the variables significantly explained the respective factors. Also, there significant consistency levels in measuring the five factors, in measuring the construct. This proved the reliability of the questionnaire. Based on the data analysis, it was concluded that the model built is a good fit and also that the model built will give one an opportunity to understand the factors associated with job satisfaction.

The analysis indicated that, the proposed model of job satisfaction is reliable, consistent, and good fit to measure job satisfaction. This also proves that, as supported by the existing literature, entry-level and middle-level employees, working in the Indian automobile industry, considered both the internal and external factors responsible for their job satisfaction. It was also proved that, an organization can use the above model and questionnaire to measure investigate the perception among the employees about the job satisfaction. To investigate whether to measure job satisfaction, all the factors (proposed in the model) need to be considered.

Based on the analysis, one could note that, though all the five factors were significant to investigate job satisfaction, 'engagement at work' had to be given top priority, in order to investigate job satisfaction in the Indian automobile industry. Further 'work environment' was identified of having the least priority in investigating job satisfaction. 'Relationship with boss', 'relationship with co-workers' and 'reward and recognition' were identified to be of second, third and fourth priority, respectively.

For 'engagement at work', the higher priority was assigned to 'individual's role in decision- making', 'autonomy' and 'job-role & responsibilities'. 'Treatment from boss' was ranked highest under the factor 'relationship with boss'. However, interestingly, in the case of factor 'Relationship with co-workers', aspect, such as, Co-workers' support was ranked highest by the respondents. 'Current salary' was of the least rank among all the aspects for the factor Reward and recognition'. In the context of the factor 'work environment', rest room facility, safety measures, and refreshment facility were given top priority.

In addition to the above data, the researchers also gathered information based on personal and telephonic interviews conducted with regard to the study. Issues, such as, Clarity and preciseness in communication pattern, creation of a team culture by making an effort to know employees, training and improvement programs, employee empowerment, enriching jobs, adequate and fair compensation and reward systems, career advancement, regular and honest feedback, and safe working conditions, were stated as crucial actors by the respondents.

## Section I : Introduction

In the ever-changing business world, with increasing competition and continuous demands from the stakeholders, employees are believed to be the most valuable asset in any organization, capable of meeting such uncertain demands. Employees bring the abilities, acquired knowledge and skills represented by each individual employee. It is, the employee's performance which contributes towards attainment of organizational goals. It is, therefore, imperative to utilize the employees' capabilities to the maximum possible extent, in order to achieve individual and organizational goals. In this context, it has been argued that, employees' performance, to a large extent, is influenced by motivation and job satisfaction (Rao, 2000).

According to Spector (1997), there are certain common facets, which encompass the concept of job satisfaction: Appreciation, Communication, Co-workers, Fringe benefits, Job conditions, Nature of the work, Organization, Personal growth, Policies and procedures, Promotion opportunities, Recognition, Security, and Supervision.

There are three important dimensions to job satisfaction:

- 1) Job satisfaction refers to an individual employee's feeling towards his/her job. It can only be inferred but not seen.
- 2) Job satisfaction can also be determined by how well outcomes meet or exceed expectations. This results into increased commitment in the fulfilment of formal performance requirements.
- 3) The terms, job satisfaction and job attitudes are often used synonymously. Both indicate positive and affirmative orientations of the individuals towards their job.

The concept of job satisfaction may be defined in several ways.

It may be defined as how content an individual is with his or her job, in other words, whether or not they like the job or individual aspects or facets of jobs, such as nature of work or supervision (Spector, 1997).

Hulin and Judge (2003) suggested that the concept of job satisfaction was the multi-dimensional psychological responses to one's job in question.

One of the most popular definitions of job satisfaction has been proposed by Locke (1976:1304). According to this definition, job satisfaction as "a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences".

Feldman and Arnold (1983) argued that Job satisfaction was the overall positive affect (or feelings) that individuals have towards their jobs.

Kreitner and Kinicki (1995) described Job satisfaction is an affective or emotional response toward various facets of one's job. This definition means job satisfaction is not a unitary concept.

Davis and Newstrom (1989) explained Job satisfaction is a set of favorable or unfavorable feelings with which employees view their work."

The study of job satisfaction is of great significance for any organization, for several reasons. They are as follows:

- Study on job satisfaction helps the management in gathering information pertaining to job, employee, work environment etc. This, in turn, facilitates the decision-making process and acts as a catalyst in changing or modifying organizational policies, if needed.
- Survey on job satisfaction may be used as a diagnostic instrument in identifying employees' resistance towards organizational change. This may be useful introducing the level of resistance, with corrective measures.
- Again, job satisfaction survey strengthens the process of communication between management and employees, as employees get exposed towards the management's view and vision towards organizational goals. .
- The study also helps in improving the attitudes of employees towards the present role and responsibilities and develops a sense of belongingness and participation.
- It also helps in determining the training and development needs of the both, employees and the organization.

In the light of the above, one can arrive to the point that, job satisfaction among employees is an important aspect of achieving desired productivity

target and remain sustainable. The present project makes an attempt to investigate the concept of job satisfaction among the employees in the automobile industry, which is one of the key drivers that boosts the economic growth of the country (<http://info.shine.com/industry/automobiles-auto-ancillaries/3.html>).

## Section II : Review of literature

In this section, following aspects of job satisfaction have been discussed:

- A. Job satisfaction and employee performance
- B. Models pertaining to job satisfaction
- C. Factors that influence job satisfaction
- D. Work-related aspects enhancing job satisfaction
- E. Major global research findings on job satisfaction
- F. Indian automobile industry
- G. Major Research findings on job satisfaction in Indian automobile sector

Each of the above sections are discussed below.

### A. Job satisfaction and employee performance

1. **Satisfaction and Productivity:** Employee productivity is higher in organizations with more satisfied workers.
2. **Satisfaction and Absenteeism:** Satisfied employees tend to be less absentees at work
3. **Satisfaction and Turnover:** Satisfied employees are happier with the organization, and thus, tend to quit less in number.
4. **Satisfaction and Workplace Deviance:** Dissatisfied employees are more prone towards deviant behavior at the workplace, such as, substance abuse, stealing at work, undue socializing and tardiness, and so on.
5. **Satisfaction and Organization Citizenship Behaviour (OCBs):** Satisfied employees are more willing to engage in behaviors that go beyond the normal expectations of their job.
6. **Satisfaction and Customer Satisfaction:** Satisfied workers provide better customer service, as they are more friendly and responsive.

### B. Models pertaining to job satisfaction

The most popular theories pertaining to job satisfaction are stated below.

#### Affect theory

As stated earlier, Locke's (1976) theory is among the the most popular one in this context. According to this theory, satisfaction may be determined as an inconsistency between the expectation an employee has in in a job vis –a –vis what he / she receives from the job. This theory also emphasizes on the significance of autonomy in making an employee satisfied in his/ her job. More the employee values autonomy, more he/she will be satisfied with greater autonomy he/she is provided with.

#### Equity theory

This theory proposes how an individual perceives fairness in regard to work relationships. The fairness is perceived based on the ration between the amount of input (things gained) from a relationship compared to the output (things given). Then this ratio is compared to the ratio of other individuals (within and outside the organizations). This, in turn, results into the same individuals' perception as to whether or not he / she has an equitable relationship. According to this theory, an individual employee will be distressed and dissatisfied, if his/her ration and the same of others are not equitable (Adams, 1965).

#### Two-factor theory (Motivator-Hygiene factor theory)

This theory is a well-known theory, which attempts to explain satisfaction and motivation in the workplace. According to this theory, satisfaction and dissatisfaction are driven by different factors. These factors are called motivators and hygiene factors, respectively. Motivators are the internal drives that motivate individuals to attain personal and organizational goals. Motivators encourage employees to attain performance goals, and provide job satisfaction. Examples of motivators include, aspects, such as, achievement in work, recognition, promotion opportunities. Hygiene factors are the factors, which prevent dissatisfaction. Employees tend to become dissatisfied, if the hygiene actors are not present sufficiently at the work place. These factors include external aspects, such pay, company policies, supervisory practices, and other working conditions (Herzberg et al, 1959).

### Job characteristics theory

This model has been proposed by Hackman & Oldham (1980). This model is often referred as a framework to investigate how particular job characteristics influence outcomes of a job role, such as, job satisfaction. This model discusses five core job characteristics, which are influence an employee's attitudes and behaviors at work. They are as follows:

- *Skill Variety*: It explains the degree to which a job involves various activities, which makes employees to develop a variety of skills and talents. This leads to more meaningfulness in jobs.
- *Task Identity*: It explains the degree to which a job demands the employees to identify and complete a task, with outcome from the goal-attainment, in totality. Employees perceive more meaningfulness in a job when they feel that they are involved in the entire goal-attainment process, rather than just being responsible for a part of the work.
- *Task Significance*: It explains the degree to which the job influences the immediate organization or the external environment. Employees feel a job more meaningful if it improves either psychological or physical well-being of other people.
- *Autonomy*: It explains the degree to which the job provides the employee with independence, freedom, and choice to execute a task. This leads to more sense of pride and self-fulfillment among the employees.
- *Feedback*: It explains the degree to which the employees are aware about detailed information about the effectiveness of their job performance. Attainable and constructive information and feedback help employees to value their job more.

### C. Factors that influence job satisfaction

The factors which are responsible in influencing job satisfaction, may be categorized into two: (a) Environmental factors and (b) Individual factors. They are as stated below.

(a) Environmental factors : There are several environmental factors, which may influence job satisfaction. They are as follows:

- Communication overload and under-load-Communication over-load and communication

under-load may affect level of individual's job satisfaction. Individuals may experience communication overload when too many information or too complicated information are shared in a short period of time. This may lead to failure in processing the information and inability to achieve the optimal utilization of such information to complete a given task (Farace, et al , 1977). On the contrary, individuals may face communication under- load, when insufficient information is provided with them. This too may lead to sub-optimal performance. In either case, the individual employee will experience low level of job satisfaction.

- Superior-subordinate communication – The way in which subordinates perceive a supervisor's behavior, can positively or negatively influence job satisfaction. The aspects of behaviour include aspects, such as, facial expression, eye contact, vocal expression, and overall body language (Burgoon et al, 1996). Interestingly, the pattern and style of non-verbal communication of the supervisors are perceived as more crucial to their subordinates, in deciding whether the communication is favourable or otherwise. Employees experience higher level of job satisfaction, if the supervisor uses non-verbal immediacy, friendliness, and open communication.

- Recognition – Employee recognition is a significant organizational strategy, which acts as a catalyst in enhancing level of job satisfaction. More an employee gets recognition for his/her achievement at work, more he/she will be satisfied and motivated to perform. This, in turn, lead to higher employee retention and better management of talent pipeline.

- (b) Individual factors: There are several individual factors, which may influence job satisfaction. They are as follows:

- Emotion – Moods and emotions are related to overall job satisfaction. Frequency of experiencing net positive emotion will be a better predictor of overall job satisfaction than will intensity of positive emotion when it is experienced (Fisher, 2000). Interestingly, study revealed that suppression of unpleasant emotions leads to lower level of job satisfaction and the magnification of pleasant emotions leads to increased job satisfaction (Cote & Morgan, 2002).

- Personality - There are two personality factors, which have close relationship with job satisfaction: alienation and locus of control. Employees, with more internal locus of control and are less alienated, experience higher job satisfaction, job involvement and organizational commitment (*Bruk-Lee et al, 2009*).
- Psychological well-being (PWB) - PWB is a concept which explains the overall effectiveness of an individual's "psychological functioning" as related to primary facades of an individual's life: work, family, community, etc (*Wright & Cropanzano, 2000*). Studies revealed that it plays a significant role in causing job satisfaction (*Baptiste, 2008; Robertson et al 2012*).

#### D. Work-related aspects enhancing job satisfaction

**1. Policies of Compensation and Benefit:** This is the most important variable for employee satisfaction. Compensation can be described as the amount of reward that a worker expects from the job. Employees should be satisfied with competitive salary packages and they should be satisfied with it, while comparing their pay packets with those of the outsiders, who are working in the same industry. A sense of satisfaction is felt by individual employees in attaining fair, equitable, and, appropriate reward. Following points may be delineated under this category:

- Salaries or wages
- Bonus
- Incentives such as medical allowance, educational allowance, HRA etc.

**2. Job security:** Job security is the assurance of current employment provided by the management. Employees with a high level of job security perceive the workplace as more safe and comfortable place to work. Certain affected by a worker's performance, success of the business and the current economic environment. Following points come under this category:

- Facility of transfer
- Accessible / reasonable target
- Leaves

**3. Working conditions: good and comfortable working condition** is a significant factor which enhances job satisfaction. It provides a feeling of safety, comfort and motivation. On the contrary, poor working condition brings out a fear of bad health in employees. The more comfortable the working environment is more productive will be the employees. Following these points come under this category:

- Feeling safe and comfort in working environment
- Tools and equipment
- Working methods
- Security guards and parking facility
- Well ventilated with good light fans and air- conditioning
- Neat and clean office place, rest area and washrooms.

**4. Relationship with superior authority:** A good working relationship with your supervisor is essential since, at every stage, you need his or her professional input, constructive criticism, and general understanding. The following points come under this category:

- Relationship with immediate supervisor
- Communication between employees and senior management
- Treatment to employee.

**5. Promotion and career development:** Promotion can be reciprocated as a significant achievement in the work-life. It comes with future potential of receiving more pay, responsibility, authority, independence and status. The opportunity for promotion determines the degree of satisfaction to the employee. Some of the pointers in this regard are as follows:

- Opportunity for promotion
- Equal opportunity to grow despite being male or female
- Training programs
- Opportunity for use of skills and abilities.

**6. Leadership styles:** The satisfaction level in the job can be determined by the leadership style. Employee satisfaction is greatly enhanced by democratic style of leadership. Democratic leaders nurture relationship among the employees. On the contrary, employees working under authoritarian and dictatorial leaders experience low level of employee satisfaction. Following issues come under this category:

- Prefer democratic style of leadership
- Friendship, respect and warmth relationship.

**7. Work group:** It is a natural desire for human beings to interact with others. Therefore, existence of group in organization is a common observable fact. This characteristic results in the formation of work group at the work place. Isolated workers dislike their job. The work groups make use of a remarkable influence on the satisfaction of employees. Following points come under this category:

- Relationship with the group members.
- Group dynamics
- Group cohesiveness
- Need for affiliation.

**8. Other factors:** There are some other important factors, which may influence the level of employee satisfaction in organization. They are as follows (Sageer et al,2012):

- Group outgoing (feel like a part of family).
- Encouragement and feedback.
- Use of internet and other technology for doing job.

### E. Major global research findings on job satisfaction

Following are some of the major findings on job satisfaction at the work place, worldwide.

1. A study, conducted among nurses in Australia (Savery, 1989) revealed that the job satisfaction level of the nurses was influenced most by interesting and challenging work. , Salary was ranked as a very low satisfier.

2. Burke and MacDermid (1999) proposed six variables of workaholic patterns: Workaholics, Enthusiastic Workaholics, Work Enthusiastic, Unengaged Workers, Relaxed Workers and Disenchanted Workers. According to this study, the job satisfaction level and career satisfaction level was much more prevalent in Enthusiastic Workaholics.

3. Researches also confirmed the role of environmental design of an organization in job satisfaction (Melvin, 1993).

4. A study, conducted by Singh & Jain (2013), argued that employees' job satisfaction had an impact on their performance and retention.

5. Tietjen & Myers (1998), advocated that job Satisfaction would be maximum when an employee would be satisfied with the nature of his/her work itself, and not the hygiene factors.

6. Oshagbemi (1997) found out that gender and rank had direct impact on the level of job satisfaction of University teachers in UK. Female academics were found to be more satisfied in regard to pay, promotion, physical conditions/working facilities, than men.

7. Seniwoliba A.J. (2013) conducted a study on the job satisfaction level of teachers in public senior high school in Ghana. Interestingly, it was found that extrinsic factors i.e. salary, incentives, working conditions, and so on, help in achieving job satisfaction effectively.

8. Toma•ev et al (2014) reported that the police employees rated salary and security as the least motivator. Management support, trust and belongingness were rated as the key factors to job satisfaction.

9. Austin (2007) also forwarded the similar finding in Cyprus. According to this study, "Self-fulfilment", "Independence" and "Job environment" are the key reasons to managers' job satisfaction.

10. Hoffman and Ingram (1992) also suggested that the concept of job satisfaction was related to work, co-workers, promotion, pay, supervision quality, and so on.

11. In a study on Lebanese banking non -managerial staff, Zaki (2003) found out significant relationship between job satisfaction and gender in relation to pay and supervision. Female

employees were found to be more satisfied with the salary, whereas male employees were more satisfied with the supervision.

12. Fairbrother and Warn (2003) argued that work place dimensions, and resultant stress led to reduced job satisfaction. Stress could be experienced due to lack of power, role conflict and role ambiguity.
13. In Ramayah's (2011) study in Malaysia, it was found that mentor played an important role in learning always and it led to positive employee outcomes. However, psychological mentoring did not have a significant relationship with job satisfaction.
14. Silverthorne (2008) reported that internal locus of control led to higher level of job satisfaction and performance.
15. Association between fringe benefits and job satisfaction was studied by Artz (2010). It was revealed that fringe benefits did not necessarily lead to job satisfaction.
16. Mudor and Tookson (2011) aimed to examine the association link between human resource management practices and job satisfaction, and resulting turnover. It was found out that, HRM practices, such as supervision, training and pay practices were negatively associated with job satisfaction.
17. In the study in private and public Jordanian companies, Al-Zoubi (2012) summarized that salary was not a prime factor that influenced job satisfaction. Salary might be of help in sustaining job satisfaction in the short term. But, in the long term, psycho-social variables, such as, the work life quality, also needed to be considered.

In the light of the above, it can be said that, organizations need to nurture both the extrinsic and intrinsic factors, which are responsible for developing and maintaining positive effect on the level of job satisfaction among employees.

### F. Indian automobile industry

The Indian automobile industry, which contributes 7.1 per cent of India's Gross Domestic Product (GDP) is one of the largest in the world. In this industry, Two Wheelers segment owns with 80 per cent market share. India is a major auto exporter. Exports of Passenger Vehicles and Commercial Vehicles (CV)

has been increased by 16.20 per cent and 4.99 per cent respectively, in April-March 2017, over April-March 2016. Government and automobile companies' latest initiatives are expected to result into marking India as a global leader in the two wheeler and four wheeler market, by 2020. The industry has recorded Foreign Direct Investment (FDI) of US\$ 17.40 billion during the period April 2000 to June 2017 (<https://www.ibef.org/industry/india-automobiles.aspx>).

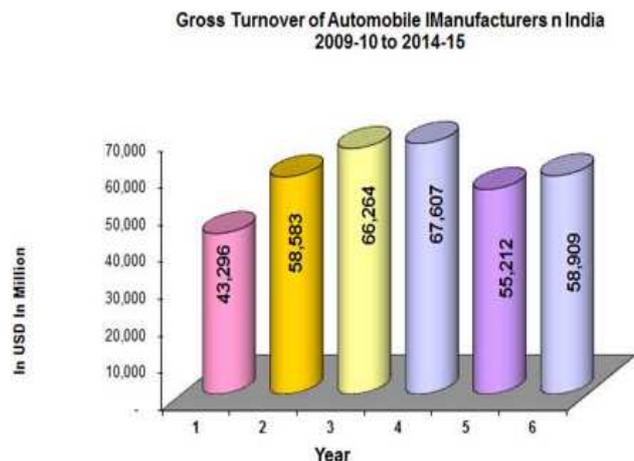
The automobiles sector may be structured under four different sectors. They are as follows (<http://info.shine.com/industry/automobiles-auto-ancillaries/3.html>):

- Two-wheelers: Mopeds, scooters, motorcycles and electric two-wheelers
- Passenger Vehicles: Passenger cars, utility vehicles and multi-purpose vehicles
- Commercial Vehicles: Light and medium-heavy vehicles
- Three Wheelers: Passenger carriers and goods carriers.

### Trend in production and gross turnover

A total of 25,316,044 vehicles, including passenger vehicles, commercial vehicles, three wheelers, two wheelers and quadricycle, have been produced by this industry, in April-March 2017, as against 24,016,599 in April-March 2016. Registration of vehicles grew 5.41 percent over the same period last year (<http://www.siamindia.com/statistics.aspx?mpgid=8&pgidtrail=9>).

The Gross Turnover of the Automobile Manufacturers in India (In USD Million), for the period between 2009-2010 and 2014-2015 is shown below (<http://www.siamindia.com/statistics.aspx?mpgid=8&pgidtrail=10>):



The Automobile Production Trends from 2011-12 to 2016-17 is as follows (<http://www.siamindia.com/statistics.aspx?mpgid=8&pgidtrail=13>)

Category	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Passenger Vehicles	31,46,069	32,31,058	30,87,973	32,21,419	34,65,045	37,91,540
Commercial Vehicles	9,29,136	8,32,649	6,99,035	6,98,298	7,86,692	8,10,286
Three Wheelers	8,79,289	8,39,748	8,30,108	9,49,019	9,34,104	7,83,149
Two Wheelers	1,54,27,532	1,57,44,156	1,68,83,049	1,84,89,311	1,88,30,227	1,99,29,485
<b>Grand Total</b>	<b>2,03,82,026</b>	<b>2,06,47,611</b>	<b>2,15,00,165</b>	<b>2,33,58,047</b>	<b>2,40,16,068</b>	<b>2,53,14,460</b>

### Factors determining the growth

Following factors are responsible in determining the growth of the industry

- Fuel economy and demand for greater fuel efficiency are determining the purchase decision
- Affordability of middle-class Indian population is increasing
- The Government technology modernization fund is concentrating on establishing India as an auto-manufacturing hub.
- Availability of skilled and cheap workers
- Women, youth, rural and luxury segments are becoming enlarged.

(<http://info.shine.com/industry/automobiles-auto-ancillaries/3.html>)

Along with the bright side, as mentioned above, automobile industry is facing certain challenges. For example, urban India is suffering from increased pollution levels as a result of poorly maintained old cars. To salvage the situation, The National Green Tribunal has announced restrictions on old cars remaining on roads. Also, an alarming increase in the number of automobile accidents has been a matter of high concern for road safety (<https://www.futurescape.in/csr-what-the-automotive-industry-should-really-focus-on/>). The automotive industry is a major consumer of water for various production processes. Producing a car may use over 39,000 gallons of water, and increasing water scarcity is a major concern for the industry. Also, automobile industry is under pressure to use more renewable energy, in order to make the business more sustainable. Waste management is a key concern for

the industry, as well. Auto manufacturing plants are responsible for producing production waste, scrap, end of life products. (<https://www.futurescape.in/csr-what-the-automotive-industry-should-really-focus-on/>).

### G. Major research findings on job satisfaction in Indian automobile sector

Swarnalatha and Sureshkrishna (2012) investigated the management practices, such as, introducing employee empowerment, teamwork, and employee compensation, management leadership, for studying employee job satisfaction among the employees of automotive industries in India. The research, which was conducted among 234 employees of automotive industries in India, revealed that, there was a significant relationship of job satisfaction with employee empowerment, teamwork, employee compensation and management leadership.

Another study on 315 samples, conducted by Swarnalatha, C & Sureshkrishna, G (2013), revealed how the role of employee engagement delivers employee satisfaction in their job and how it makes him committed to work for the welfare and productivity of the organization.

Bhavani et. al (2015) have conducted a study at Automotive Axles Ltd, to investigate to what extent, the employees are engaged. The data was collected by interviewing the respondents with the help of a structured questionnaire. The study revealed that, most of the respondents were motivated with reward and recognition. Most of the respondents agreed that employees are treated with respect and valued and there is an honest two way communication with motivated employees. Most of the respondents felt

satisfied in the job and had a sense of personal accomplishment.

In another study on 100 employees, working in automotive industry in Assam, effort was made to study relationships in between fair compensation and job satisfaction, supervisor support and job satisfaction, working environment and job satisfaction and Job Security and job satisfaction (Neog & Barua, 2014). The result revealed that salary is the most important factor for influencing job satisfaction of employees. It was also found that the influence of supervisor support, healthy working environment, high job satisfaction level, proper work-life balance, career opportunities and promotion, proper training and development opportunities were significant factors for determining employee's job satisfaction.

### Section III : Objectives of the study

Based on the discussions in the earlier chapters, the present study makes an attempt to investigate the employee job satisfaction, with special reference to Indian Automobile Industry. Based on the existing literature, five factors are proposed to be responsible for job satisfaction (given below).

The present study has the following objectives:

- To investigate whether the set of variables together are expected to measure the latent factors.
- The investigate whether proposed model is close to the actual model i.e. the hypothesized model is

a good fit, and supported by the collected sample.

- To investigate whether to measure job satisfaction, all the factors (proposed in the model) need to be considered.
- To investigate whether engagement at work is to have the highest significance, while investigating employee job satisfaction.
- To investigate whether work environment is to have least significance, while investigating employee job satisfaction.

Based on the above objectives, following hypotheses have been framed:

Hypothesis 1a: There is a significant association between the variables in explaining the respective factors.

Hypothesis 2a: The proposed model is close to the actual model i.e. the hypothesized model is a good fit, and supported by the collected sample.

Hypothesis 3a: To investigate whether to measure job satisfaction, all the factors (proposed in the model) need to be considered.

Hypothesis 4a: Engagement at work is to have the highest significance, while investigating employee job satisfaction.

Hypothesis 5a: Work environment is to have least significance, while investigating employee job satisfaction.

factors	Variables / aspects
Reward and recognition	Recognition policy; Bonuses/incentives; Allowances; Annual increment; Welfare and benefit; Current salary
Work environment	Rest room facility; Safety measures; Refreshment facility; Office Rules & regulations; Parking spaces; Family-friendly policies; Space for lunch and break; working hours; Workload
Relationship with co-workers	Co-workers' support; Relationship with co-workers; Trust
Relationship with boss	Treatment from boss; Relationship with boss; Boss's support towards personal and work goals; Motivation from boss; Support from boss
Engagement at work	Individual's role in decision making; Autonomy; Job role & responsibilities; Recognition policy; Training & development facilities; Career progression; Promotion policy; Performance appraisal

## Section IV : Methodology and analysis of data

In this section, we present the methodology used to achieve the objectives of the study.

### Population, sampling design, data collection

The population for the study were the employees working in Indian Automobile sector organizations, manufacturing and selling two-wheelers, three-wheelers, and for-wheelers, during period from February 2017 to December 2017. For the current study, non-probability sampling technique was used. The entry-level and middle-level employees, belonging to the Indian automobile sector, were requested to participate in the survey, and based on their acceptance, the responses were collected. Data was collected from the many cities across the country, such as, Delhi, Gurgaon, Lucknow, Mumbai, Pune, Ahmedabad, Bhopal, Nagpur, Indore, Chennai, Hyderabad, Mysore, Bangalore, Kolkata, Jamshedpur, and Patna. Data collection methods include administration of questionnaire, personal and telephonic interviews.

### Questionnaire and scaling of the variables

In order to achieve the objectives of the study, a questionnaire was designed and the responses collected. The variables (questions) considered in the questionnaire are measured using a 5 point Likert Scale, where 5 indicates strongly agree, 4 indicates agree, 3 indicates neutral, 2 indicates disagree, and, 1 indicates strongly disagree. Note that, the numbers mentioned here are the weights assigned, based on the preferences given by the respondents.

### Pilot study

A pilot study was conducted to test for the reliability and also to check whether the respondents will be comfortable in answering the questions. This was done in two rounds. The first round was conducted with a sample size of 109 and the second round with a sample size of 51. The results of the same are presented under data analysis section.

### Testing the reliability of the questionnaire

In many studies, related to understanding the perception of the individuals, it is a regular practice to build a questionnaire containing the variables on which responses are collected. Sometimes, a set of

variables together are expected to measure a latent construct and in such cases it is important to have internal consistency among the variables in measuring the construct. The responses taken on the variables are used to measure the internal consistency and this is termed as reliability of the questionnaire. To achieve this, it is a regular practice to use Cronbach alpha proposed by Cronbach (1970) to measure the degree of reliability of the questionnaire considered in the current study. The following is the given cut-off points for Cronbach alpha. One can note that a value of alpha close to one is considered to be excellent and a value less than 0.50 is not desirable.

**Cut-off points for Cronbach Alpha**

Cronbach's alpha	Internal consistency
$0.9 \leq \alpha$	Excellent
$0.8 \leq \alpha < 0.9$	Good
$0.7 \leq \alpha < 0.8$	Acceptable
$0.6 \leq \alpha < 0.7$	Questionable
$0.5 \leq \alpha < 0.6$	Poor
$\alpha < 0.5$	Unacceptable

Source: Wikipedia-retrieved on 25.10.2017

In the current study, we have used Cronbach alpha to check for the consistency of the questionnaire in measuring the job satisfaction.

### Sample size determination

Based on the results of the pilot study, the final sample size was estimated using the following formula.

$$n = \frac{Z_{\alpha}^2}{B^2} \sigma^2$$

Where n is the sample size,  $\alpha$  is the level of significance  $\sigma$  is the standard deviation and B is the degree of precision (Difference between the actual and the estimated).

### Description of the sample

Before getting into addressing the objectives of the study, one has to describe the sample. For example, number of male and female, age-wise distribution etc. That is, describing the sample based on the demographics and other factors, if any.

## Exploratory and Confirmatory Factor Analysis

The model is built in two stages. In the first stage, we have used Exploratory Factor Analysis (EFA) to find the latent factors, which are the resultants of observed variable-grouping. Formation of factors is based on the concept of correlation. That is, observed variables that have high correlations with a factor will be listed under that factor and the process is iteratively used till all the factors are identified. Note that, the set of variables together are expected to measure the latent factors and also the factors are expected to contain the essence of the set of variables. Finally, EFA gives a variable-factor structure which can be used for model building. The method is exploratory in nature because, the researcher does not know the variable-factor structure and the analysis gives the structure. To test the model built, Confirmatory Factor Analysis (CFA) is used. While EFA gives the factors to build the model, CFA helps to test the model built.

Note that, EFA is used in the two rounds of the pilot study and also in the final study. This is to ensure that the variables proposed to measure the factors satisfy the required cut-offs of the EFA and also have the necessary consistency levels. Based on the results, the final questionnaire will be designed.

### Data analysis and model building

In this section we present the results of the data analysis and also the model built.

#### Results of the pilot study

We first present the results of the first round of pilot study, followed by the second round of the pilot study.

#### Results of first round of the pilot study

A theoretical model has been proposed to measure the employee perception on the job satisfaction in the automobile sector. The proposed model consisted of total five factors. Each factor was proposed to consist of a number of variables. A questionnaire was proposed to measure each of the factors.

The questionnaire was administered on 500 employees, working in the automobile sector. Total 109 responses were received, which were used for the purpose of analysis. The pilot size study 500 was chosen, based on the population size and researchers' experience, and, also the effectiveness

of the statistical methods. Out of the 109 respondents, 35 were female employees, while 74 were the male employees. 14 were from central, 23 from eastern, 20 from northern, 40 from southern, and the rest 12 from western part of the country. 12 respondents were in the age group of 18 to 22 years, 31 respondents in the age group of 23 to 27 years, 27 respondents were in the age group of 28 to 32 years, 22 were in the age group of 33 to 37 years and 17 respondents was in the age group of 38 years and above. 13 respondents had less than 1 year of work experience, 15 had 1 to 3 years of work experience, 32 had work experience between 3 to 6 years, 20 respondents had 6 to 8 years of experience, and, 29 respondents had more than 8 years of experience. For 25 respondents, the tenure in the present company was less than 1 year, 28 respondents had experience of 1 to 3 years in the present company, 31 respondents had 3 to 6 years of experience, 9 had 6 to 8 years of experience and 16 respondents had more than 8 years of experience in the present company. 14 respondents were at the entry level, 25 were at the junior level, 45 were at the middle level, while the rest 25 were at the senior level.

48 respondents were engaged in non-managerial work, whereas, the rest 61 were engaged in managerial work.

The data was analysed with Exploratory Data Analysis (Table no 1 to 5). Analysis of the data revealed that the sample supported the association between the variables in explaining the respective factors (value of KMO is .5 or more, in all the five factors). Further, Bartlett test value (in all the five factors) was less than .05. This proved the significance of the correlation matrix. Also, in case of all the five factors, communalities value is more than .5. Therefore, the percentage of variance in each of the variables, meets the required levels. In all the factors, the value of total variance explained is more than 60% and value of component loading is more than .5, for all the factors (except item no 13, which is .481). For all the five factors, Cronbach Alpha is more than .8, which proves that correlation is high for all the variables for the respective factors. In the light of the above, the questionnaire has been retained, and used for the final data collection. In the light of the above, it can be concluded that, the sample is leading to the significant consistency levels, in measuring the five factors, using the proposed model.

**Table 1 : Reward and recognition**

	<b>Construct</b>	<b>KMO</b>	<b>Bartlett test</b>	<b>Communalities</b>	<b>Total variance explained</b>	<b>Component loading</b>	<b>Reliability-Cronbach alpha</b>
<b>8</b>	I am satisfied with my current salary.	<b>0.872</b>	<b>0.0001</b>	<b>0.733</b>	<b>68.054</b>	<b>0.856</b>	<b>0.905</b>
<b>9</b>	I am satisfied with the allowances provided by the company.			<b>0.794</b>		<b>0.891</b>	
<b>10</b>	I am satisfied with the annual increment provided by my company.			<b>0.732</b>		<b>0.856</b>	
<b>11</b>	I am satisfied with the recognition policy practiced in the company.			<b>0.692</b>		<b>0.832</b>	
<b>12</b>	I am satisfied with the bonuses or incentives available to me.			<b>0.652</b>		<b>0.808</b>	
<b>13</b>	I am satisfied with the employee welfare and benefits offered by the company.			<b>0.481</b>		<b>0.693</b>	

Source: From data analysis

**Table 2 : Work environment**

	<b>Construct</b>	<b>KMO</b>	<b>Bartlett test</b>	<b>Communalities</b>	<b>Total variance explained</b>	<b>Component loading</b>		<b>Reliability-Cronbach alpha</b>
<b>14</b>	I am satisfied with the working hours.	<b>0.834</b>	<b>0.0001</b>	<b>0.806</b>	<b>71.532</b>	<b>0.190</b>	<b>0.878</b>	<b>0.904</b>
<b>15</b>	I am satisfied with the workload.			<b>0.876</b>		<b>0.192</b>	<b>0.916</b>	
<b>16</b>	I am satisfied with the safety measures provided by the company.			<b>0.640</b>		<b>0.639</b>	<b>0.481</b>	
<b>17</b>	I am satisfied with the refreshment facility provided by the company.			<b>0.693</b>		<b>0.791</b>	<b>0.259</b>	
<b>18</b>	I am satisfied with the rest room facility provided by the company.			<b>0.733</b>		<b>0.798</b>	<b>0.310</b>	
<b>19</b>	I am satisfied with office rules and regulations we need to follow at work.			<b>0.692</b>		<b>0.721</b>	<b>0.414</b>	
<b>20</b>	I am satisfied with the parking spaces for vehicles by the company.			<b>0.693</b>		<b>0.816</b>	<b>0.164</b>	
<b>21</b>	I am satisfied with the space available for lunch and breaks.			<b>0.680</b>		<b>0.806</b>	<b>0.174</b>	
<b>22</b>	I am satisfied with the family-friendly policies offered by the company.			<b>0.625</b>		<b>0.789</b>	<b>0.048</b>	

Source: From data analysis

**Table 3: Relationship with co-workers**

	<b>Construct</b>	<b>KMO</b>	<b>Bartlett test</b>	<b>Communalities</b>	<b>Total variance explained</b>	<b>Component loading</b>	<b>Reliability-Cronbach alpha</b>
<b>23</b>	I am satisfied with the support I get from my co-workers	<b>0.744</b>	<b>0.0001</b>	<b>0.968</b>	<b>94.359</b>	<b>0.984</b>	<b>0.970</b>
<b>24</b>	I am satisfied with the working relationship I have with my co-workers.			<b>0.944</b>		<b>0.972</b>	
<b>25</b>	I am satisfied with the level of trust I have at work.			<b>0.919</b>		<b>0.959</b>	

Source: From data analysis

**Table 4: Relationship with boss**

	<b>Construct</b>	<b>KMO</b>	<b>Bartlett test</b>	<b>Communalities</b>	<b>Total variance explained</b>	<b>Component loading</b>	<b>Reliability-Cronbach alpha</b>
<b>26</b>	I am satisfied with the support I get from my boss.	<b>0.889</b>	<b>0.0001</b>	<b>0.838</b>	<b>83.241</b>	<b>0.915</b>	<b>0.959</b>
<b>27</b>	I am satisfied with the working relationship I have with my boss.			<b>0.857</b>		<b>0.926</b>	
<b>28</b>	I am satisfied with the way my boss motivates me to achieve the company goals.			<b>0.887</b>		<b>0.942</b>	
<b>29</b>	I am satisfied with the way my boss treats me.			<b>0.846</b>		<b>0.920</b>	
<b>30</b>	I am satisfied with the way my boss helps me to maintain parity between my personal as well as professional goals.			<b>0.811</b>		<b>0.901</b>	
<b>31</b>	I am satisfied with the way my boss sets realistic goals and achievable targets.			<b>0.755</b>		<b>0.869</b>	

Source: From data analysis

**Table 5 : Engagement at work**

	<b>Construct</b>	<b>KMO</b>	<b>Bartlett test</b>	<b>Communalities</b>	<b>Total variance explained</b>	<b>Component loading</b>		<b>Reliability-Cronbach alpha</b>
<b>32</b>	I am satisfied with my job role and responsibilities.	<b>0.726</b>	<b>0.0001</b>	<b>0.727</b>	<b>72.834</b>	<b>0.842</b>	<b>0.132</b>	<b>0.877</b>
<b>33</b>	I am satisfied with the autonomy I have in my job			<b>Excluded</b>				
<b>34</b>	I am satisfied with the way my views are considered for work-related decision-making.			<b>0.717</b>		<b>0.773</b>	<b>0.344</b>	
<b>35</b>	I am satisfied with the promotion policy			<b>0.663</b>		<b>0.470</b>	<b>0.665</b>	
<b>36</b>	I am satisfied with the performance appraisal system of the company.			<b>0.906</b>		<b>0.087</b>	<b>0.948</b>	
<b>37</b>	I am satisfied with career progression in the company.			<b>0.813</b>		<b>0.244</b>	<b>0.868</b>	
<b>38</b>	I am satisfied with the company policy to recognize employee's potential to grow.			<b>0.725</b>		<b>0.654</b>	<b>0.545</b>	
<b>39</b>	I am satisfied with the training and development facilities offered by the company.			<b>0.548</b>		<b>0.730</b>	<b>0.120</b>	

Source: From data analysis

### Result of retest analysis

A questionnaire was proposed to measure each of the factors. A theoretical model has been proposed to measure those factors.

The questionnaire was administered on 100 employees, working in the retail sector. Total 50 responses were received, which were used for the purpose of retest analysis. Out of the 50 respondents, 32 were female employees, while 18 were the male employees. 9 respondents were in the age group of 18 to 22 years, 15 respondents in the age group of 23 to 27 years, 14 respondents were in the age group of 28 to 32 years, 4 were in the age group of 33 to 37 years and only 8 respondents were in the age group of 38 years and above. 8 respondents had less than 1 year of work experience, 12 had 1 to 3 years of work experience, 8 had work experience between 3 to 6 years, 4 respondents had 6 to 8 years of experience, and, 18 respondents had more than 8 years of experience. For 15 respondents, the tenure in the present company was less than 1 year, 16 respondents had experience of 1 to 3 years in the present company, 10 respondents had 3 to 6 years of

experience, 5 had 6 to 8 years of experience and 4 respondents had more than 8 years of experience in the present company. 8 respondents were at the entry level, 10 were at the junior level, 13 were at the middle level, while the rest 19 were at the senior level. 23 respondents were engaged in non-managerial work, whereas, the rest 27 were engaged in managerial work.

The data has been analysed with Exploratory Data Analysis (Table no 6 to 10). Analysis of the data revealed that the sample supported the association between the variables in explaining the respective factors (value of KMO is .5 or more, in all the five factors). Further, Bartlett test value (in all the five factors) was less than .05. This proved the significance of the correlation matrix. Also, in case of all the five factors, communalities value is more than .5 (except items 14, 15, 21, which have values very close to .5). Therefore, the percentage of variance in each of the variables, meets the required levels. In all the factors, the value of total variance explained is more than 50% and value of component loading is more than .5, for all the factors. For all the five factors, Cronbach Alpha is more than .8, which proves that correlation is high for all the variables for the respective factors.

**Table 6: Reward and recognition**

	<b>Construct</b>	<b>KMO</b>	<b>Bartlett test</b>	<b>Communalities</b>	<b>Total variance explained</b>	<b>Component loading</b>	<b>Reliability-Cronbach alpha</b>
<b>8</b>	I am satisfied with my current salary.	<b>0.856</b>	<b>0.0001</b>	<b>0.584</b>	<b>67.477</b>	<b>0.764</b>	<b>0.903</b>
<b>9</b>	I am satisfied with the allowances provided by the company.			<b>0.804</b>		<b>0.897</b>	
<b>10</b>	I am satisfied with the annual increment provided by my company.			<b>0.773</b>		<b>0.879</b>	
<b>11</b>	I am satisfied with the recognition policy practiced in the company.			<b>0.550</b>		<b>0.742</b>	
<b>12</b>	I am satisfied with the bonuses or incentives available to me.			<b>0.680</b>		<b>0.825</b>	
<b>13</b>	I am satisfied with the employee welfare and benefits offered by the company.			<b>0.657</b>		<b>0.811</b>	

Source: From data analysis

**Table 7: Work environment**

	<b>Construct</b>	<b>KMO</b>	<b>Bartlett test</b>	<b>Communalities</b>	<b>Total variance explained</b>	<b>Component loading</b>	<b>Reliability-Cronbach alpha</b>
<b>14</b>	I am satisfied with the working hours.	<b>0.858</b>	<b>0.0001</b>	<b>0.449</b>	<b>53.909</b>	<b>0.670</b>	<b>0.890</b>
<b>15</b>	I am satisfied with the workload.			<b>0.448</b>		<b>0.669</b>	
<b>16</b>	I am satisfied with the safety measures provided by the company.			<b>0.592</b>		<b>0.769</b>	
<b>17</b>	I am satisfied with the refreshment facility provided by the company.			<b>0.700</b>		<b>0.837</b>	
<b>18</b>	I am satisfied with the rest room facility provided by the company.			<b>0.575</b>		<b>0.758</b>	
<b>19</b>	I am satisfied with office rules and regulations we need to follow at work.			<b>0.670</b>		<b>0.819</b>	
<b>20</b>	I am satisfied with the parking spaces for vehicles by the company.			<b>0.453</b>		<b>0.673</b>	
<b>21</b>	I am satisfied with the space available for lunch and breaks.			<b>0.364</b>		<b>0.603</b>	
<b>22</b>	I am satisfied with the family-friendly policies offered by the company.			<b>0.602</b>		<b>0.776</b>	

Source: From data analysis

**Table 8: Relationship with co-workers**

	<b>Construct</b>	<b>KMO</b>	<b>Bartlett test</b>	<b>Communalities</b>	<b>Total variance explained</b>	<b>Component loading</b>	<b>Reliability-Cronbach alpha</b>
<b>23</b>	I am satisfied with the support I get from my co-workers	<b>0.691</b>	<b>0.0001</b>	<b>0.763</b>	<b>72.360</b>	<b>0.873</b>	<b>0.809</b>
<b>24</b>	I am satisfied with the working relationship I have with my co-workers.			<b>0.636</b>		<b>0.798</b>	
<b>25</b>	I am satisfied with the level of trust I have at work.			<b>0.772</b>		<b>0.879</b>	

Source: From data analysis

**Table 9: Relationship with boss**

	<b>Construct</b>	<b>KMO</b>	<b>Bartlett test</b>	<b>Communalities</b>	<b>Total variance explained</b>	<b>Component loading</b>	<b>Reliability-Cronbach alpha</b>
<b>26</b>	I am satisfied with the support I get from my boss.	<b>0.920</b>	<b>0.0001</b>	<b>0.711</b>	<b>80.850</b>	<b>0.843</b>	<b>0.950</b>
<b>27</b>	I am satisfied with the working relationship I have with my boss.			<b>0.829</b>		<b>0.910</b>	
<b>28</b>	I am satisfied with the way my boss motivates me to achieve the company goals.			<b>0.858</b>		<b>0.926</b>	
<b>29</b>	I am satisfied with the way my boss treats me.			<b>0.829</b>		<b>0.910</b>	
<b>30</b>	I am satisfied with the way my boss helps me to maintain parity between my personal as well as professional goals.			<b>0.783</b>		<b>0.885</b>	
<b>31</b>	I am satisfied with the way my boss sets realistic goals and achievable targets.			<b>0.841</b>		<b>0.917</b>	

Source: From data analysis

**Table 10: Engagement at work**

	<b>Construct</b>	<b>KMO</b>	<b>Bartlett test</b>	<b>Communalities</b>	<b>Total variance explained</b>	<b>Component loading</b>	<b>Reliability-Cronbach alpha</b>
<b>32</b>	I am satisfied with my job role and responsibilities.	<b>0.845</b>	<b>0.0001</b>	<b>0.561</b>	<b>71.577</b>	<b>0.749</b>	<b>0.943</b>
<b>33</b>	I am satisfied with the autonomy I have in my job			<b>0.668</b>		<b>0.817</b>	
<b>34</b>	I am satisfied with the way my views are considered for work-related decision-making.			<b>0.648</b>		<b>0.805</b>	
<b>35</b>	I am satisfied with the promotion policy			<b>0.823</b>		<b>0.907</b>	
<b>36</b>	I am satisfied with the performance appraisal system of the company.			<b>0.771</b>		<b>0.878</b>	
<b>37</b>	I am satisfied with career progression in the company.			<b>0.782</b>		<b>0.884</b>	
<b>38</b>	I am satisfied with the company policy to recognize employee's potential to grow.			<b>0.776</b>		<b>0.881</b>	
<b>39</b>	I am satisfied with the training and development facilities offered by the company.			<b>0.698</b>		<b>0.835</b>	

Source: From data analysis

Based on the above analysis, it can be concluded that, the sample is leading to the significant consistency levels, in measuring the five factors, using the proposed model. Therefore, the original questionnaire was retained, and used for the final data collection.

### **Final study**

#### **Sample size determination**

Based on the pilot and retest results, we have

estimated the final sample. The final sample was 100 with a degree of precision  $B=0.24$  and a sample standard deviation of 1.494316. The value of  $B$  was fixed by the researcher based on the experience and available resources. The sample size 100 was the minimum sample size required to conclude the results at the confidence level of 95% and this level is fixed throughout the study (Table No. 11).

**Table 11 : Sample size determination**

	Mean	Variance	Critical value of Z	B	Sample
Q8	3.371069	1.298145	1.96	0.24	86.57906
Q9	3.363057	1.335293	1.96	0.24	89.05664
Q10	3.352201	1.267574	1.96	0.24	84.54016
Q11	3.462025	1.231033	1.96	0.24	82.10305
Q12	3.386076	1.372289	1.96	0.24	91.52405
Q13	3.373333	1.269083	1.96	0.24	84.64077
Q14	3.531646	1.129565	1.96	0.24	75.33574
Q15	3.525641	1.16708	1.96	0.24	77.83777
Q16	3.735849	1.069023	1.96	0.24	71.29791
Q17	3.575949	1.124768	1.96	0.24	75.01579
Q18	3.880503	0.91601	1.96	0.24	61.09277
Q19	3.798742	0.984555	1.96	0.24	65.66437
Q20	3.786164	1.080567	1.96	0.24	72.0678
Q21	3.415094	1.37091	1.96	0.24	91.43208
Q22	3.531646	1.256954	1.96	0.24	83.83185
Q23	3.525316	1.270056	1.96	0.24	84.70565
Q24	3.522013	1.225778	1.96	0.24	81.7526
Q25	3.402516	1.317968	1.96	0.24	87.90116
Q26	3.339623	1.402914	1.96	0.24	93.56656
Q27	3.5	1.092357	1.96	0.24	72.85412
Q28	3.442308	1.125682	1.96	0.24	75.07676
Q29	3.417722	1.276627	1.96	0.24	85.1439
Q30	3.322785	1.4047	1.96	0.24	93.68572
Q31	3.35443	1.249375	1.96	0.24	83.32638
Q32	3.515924	1.251347	1.96	0.24	83.45792
Q33	3.4	1.371429	1.96	0.24	91.46667
Q34	3.291139	1.494316	1.96	0.24	99.66257
Q35	3.062893	1.363108	1.96	0.24	90.91173
Q36	3.112583	1.433907	1.96	0.24	95.63365
Q37	3.178344	1.429528	1.96	0.24	95.34158
Q38	3.283019	1.280153	1.96	0.24	85.37908
Q39	3.553459	1.046175	1.96	0.24	69.77404
					99.66257

Source: From researcher's data analysis

### Final data collection

In order to complete the final survey, the questionnaire was administered to 100 respondents and 100 have responded.

### Description of the sample

Note that, the questionnaire used in the pilot, retest

& final study is same. Therefore, we combine all the data collected in the above mentioned three phases. Total put together, the final sample size is 242. This sample is considered for final analysis

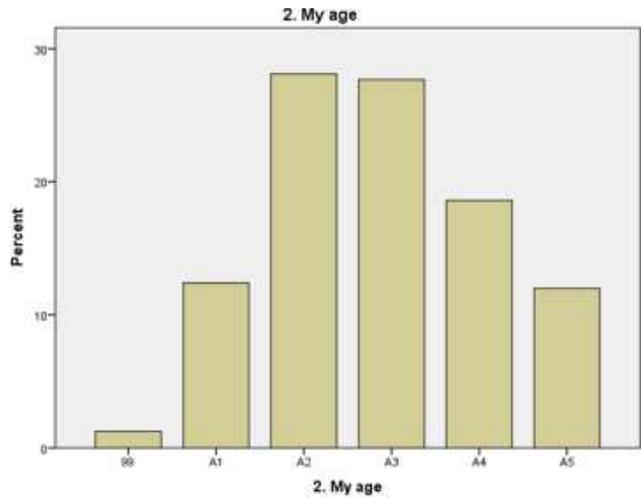
In this section, we present the description of the sample (Table No. 12 to 18 and Figure No.1 to 7).

**Table 12 : Place of work (Region)**

1. Place of work (Region)				
	Frequency	Percent	Valid Percent	Cumulative Percent
O	1	.4	.4	.4
C	14	5.8	5.8	6.2
E	23	9.5	9.5	15.7
N	55	22.7	22.7	38.4
S	137	56.6	56.6	95.0
W	12	5.0	5.0	100.0
Total	242	100.0	100.0	

Source: From Researcher’s data analysis

C=Central, E = Eastern, N = Northern, S = Southern, W = Western, O = Other



**Figure 2 : Age**

**Table 14: Gender**

3. Gender				
	Frequency	Percent	Valid Percent	Cumulative Percent
0	2	.8	.8	.8
9	8	3.3	3.3	4.1
F	95	39.3	39.3	43.4
M	137	56.6	56.6	100.0
Total	242	100.0	100.0	

F = Female, M = Male, O = Others, 9 = Missing value

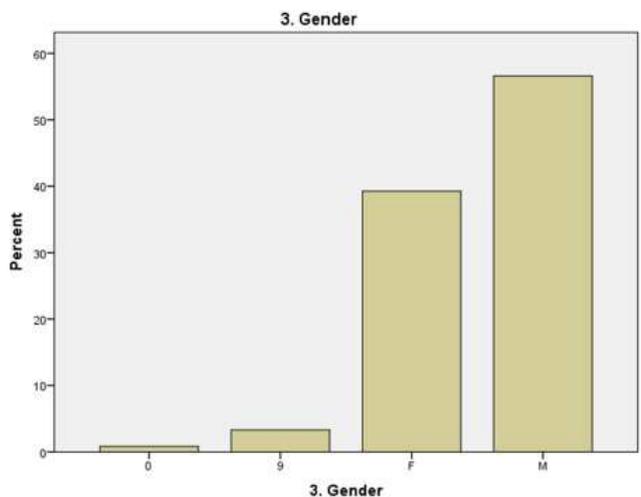


**Figure 1: Place of work (region)**

**Table 13: Age**

2. My age				
	Frequency	Percent	Valid Percent	Cumulative Percent
99	3	1.2	1.2	1.2
A1	30	12.4	12.4	13.6
A2	68	28.1	28.1	41.7
A3	67	27.7	27.7	69.4
A4	45	18.6	18.6	88.0
A5	29	12.0	12.0	100.0
Total	242	100.0	100.0	

A1 = 18-22 yrs, A2 = 23-27 Yrs, A3 = 28-32 Yrs, A4 = 33-37 Yrs, A5 = 38 Yrs and above, 99 = Missing value

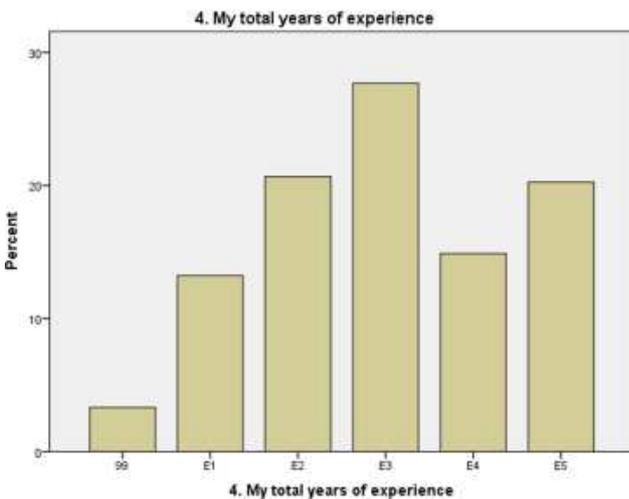


**Figure 3 : Gender**

**Table 15 : Years of experience**

4. My total years of experience				
	Frequency	Percent	Valid Percent	Cumulative Percent
99	8	3.3	3.3	3.3
E1	32	13.2	13.2	16.5
E2	50	20.7	20.7	37.2
E3	67	27.7	27.7	64.9
E4	36	14.9	14.9	79.8
E5	49	20.2	20.2	100.0
Total	242	100.0	100.0	

E1 = Less than 1Yrs, E2 = 1-3 Yrs, E3 = 3 - 6 Yrs, E4 = 6-8 Yrs, E5 = More than 8 Yrs, 99 = Missing value

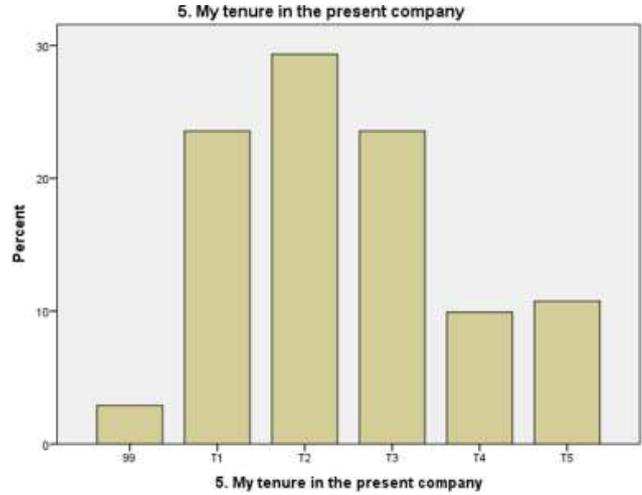


**Figure 4: years of experience**

**Table 16: tenure in the present company**

5. My tenure in the present company				
	Frequency	Percent	Valid Percent	Cumulative Percent
99	7	2.9	2.9	2.9
T1	57	23.6	23.6	26.4
T2	71	29.3	29.3	55.8
T3	57	23.6	23.6	79.3
T4	24	9.9	9.9	89.3
T5	26	10.7	10.7	100.0
Total	242	100.0	100.0	

T1 = Less than 1 Yr, T2 = 1-3 Yrs, T3 = 3-6 Yrs, T4 = 6-8 Yrs, T5 = More than 8 Yrs, 99 = Missing value

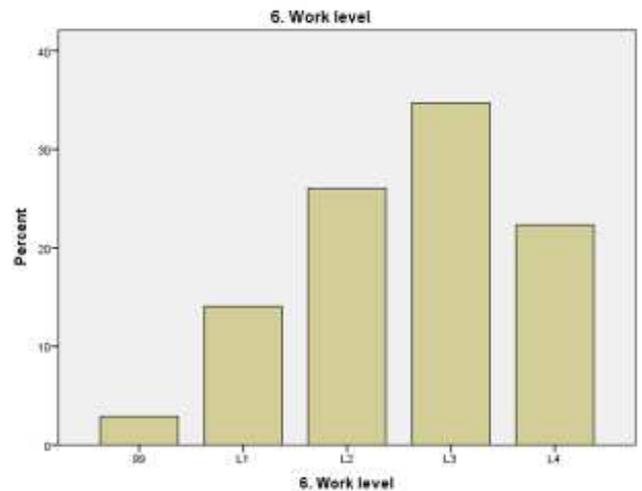


**Figure 5: tenure in the present company**

**Table 17: Work level**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	99	7	2.9	2.9	2.9
	L1	34	14.0	14.0	16.9
	L2	63	26.0	26.0	43.0
	L3	84	34.7	34.7	77.7
	L4	54	22.3	22.3	100.0
	Total	242	100.0	100.0	

L1 : Entry, L2 = Junior, L3 = Middle, L4 = Senior, 99 = Missing value

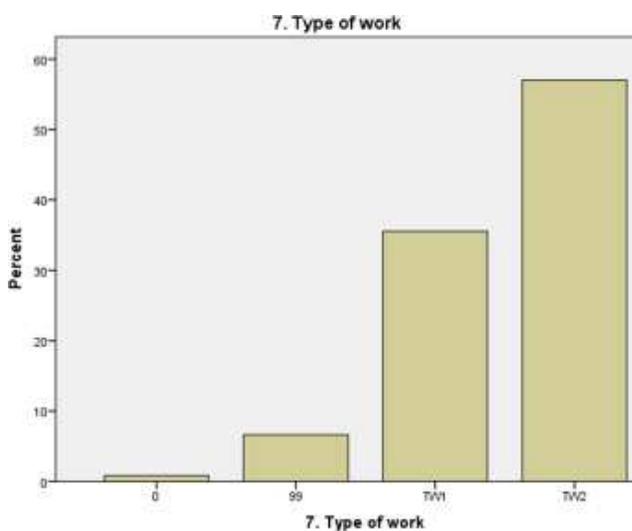


**Figure 6: work level**

**Table 18 : Type of work**

7. Type of work				
	Frequency	Percent	Valid Percent	Cumulative Percent
0	2	.8	.8	.8
99	16	6.6	6.6	7.4
TW1	86	35.5	35.5	43.0
TW2	138	57.0	57.0	100.0
Total	242	100.0	100.0	

TW1 = Non-managerial, TW2 = Managerial, 99 = Missing value



**Figure 7: Type of work**

### Testing the reliability of the final sample

The following Table no 19 gives the final consistency check of the survey conducted on 100 employees.

**Table 19 : Cronbach Alpha**

Sl. No.	Factor	Number of items	Cronbach alpha value
1	Reward and Recognition	6	0.951
2	Work environment	9	0.938
3	Relationship with Co-workers	3	0.919
4	Relationship with boss	6	0.802
5	Engagement at work	8	0.943

Source: From researcher's data analysis

From the above table, one can note that the levels of Cronbach alpha are high and we conclude that the final questionnaire has the needed reliability levels. Note that, the questionnaire used is not changed and we combine the data points collected in the first, second pilot studies and final study. Total put together, the final sample size happens to be 242. This is more than the estimated and hence sufficient to conduct the analysis.

### Exploratory Factor Analysis

The following tables gives the results of the EFA of the combined sample (n = 242). The data was analysed with Exploratory Data Analysis (Table no 20 to 24). Analysis of the data revealed that the sample supported the association between the variables in explaining the respective factors (value of KMO is .5 or more, in all the five factors). Further, Bartlett test value (in all the five factors) was less than .05. This proved the significance of the correlation matrix. Also, in case of all the five factors, communalities value is more than .5. Therefore, the percentage of variance in each of the variables, meets the required levels. In all the factors, the value of total variance explained is more than 60% and value of component loading is more than .5, for all the factors. For all the five factors, Cronbach Alpha is more than .8, which proves that correlation is high for all the variables for the respective factors. In the light of the above, the questionnaire has been retained, and used for the final data collection. In the light of the above, it can be concluded that, the sample is leading to the significant consistency levels, in measuring the five factors, using the proposed model (Figure no 8). This proves Hypothesis 1a.

**Table 20: Reward and recognition**

	Construct	KMO	Bartlett test	Communalities	Total variance explained	Component loading	Reliability-Cronbach alpha
8	I am satisfied with my current salary.	<b>0.897</b>	<b>0.0001</b>	<b>0.754</b>	<b>75%</b>	<b>0.868</b>	<b>0.935</b>
9	I am satisfied with the allowances provided by the company.			<b>0.842</b>		<b>0.917</b>	
10	I am satisfied with the annual increment provided by my company.			<b>0.826</b>		<b>0.909</b>	
11	I am satisfied with the recognition policy practiced in the company.			<b>0.732</b>		<b>0.856</b>	
12	I am satisfied with the bonuses or incentives available to me.			<b>0.740</b>		<b>0.860</b>	
13	I am satisfied with the employee welfare and benefits offered by the company.			<b>0.636</b>		<b>0.797</b>	

Source: From data analysis

**Table 21: Work environment**

	Construct	KMO	Bartlett test	Communalities	Total variance explained	Component loading	Reliability-Cronbach alpha
14	I am satisfied with the working hours.	<b>0.908</b>	<b>0.0001</b>	<b>0.578</b>	<b>65%</b>	<b>0.760</b>	<b>0.932</b>
15	I am satisfied with the workload.			<b>0.567</b>		<b>0.753</b>	
16	I am satisfied with the safety measures provided by the company.			<b>0.720</b>		<b>0.849</b>	
17	I am satisfied with the refreshment facility provided by the company.			<b>0.698</b>		<b>0.836</b>	
18	I am satisfied with the rest room facility provided by the company.			<b>0.732</b>		<b>0.855</b>	
19	I am satisfied with office rules and regulations we need to follow at work.			<b>0.686</b>		<b>0.828</b>	
20	I am satisfied with the parking spaces for vehicles by the company.			<b>0.630</b>		<b>0.794</b>	
21	I am satisfied with the space available for lunch and breaks.			<b>0.606</b>		<b>0.779</b>	
22	I am satisfied with the family-friendly policies offered by the company.			<b>0.618</b>		<b>0.786</b>	

Source: From data analysis

**Table 22 : Relationship with co-workers**

	<b>Construct</b>	<b>KMO</b>	<b>Bartlett test</b>	<b>Communalities</b>	<b>Total variance explained</b>	<b>Component loading</b>	<b>Reliability-Cronbach alpha</b>
<b>23</b>	I am satisfied with the support I get from my co-workers	<b>0.759</b>	<b>0.0001</b>	<b>0.879</b>	<b>86%</b>	<b>0.938</b>	<b>0.920</b>
<b>24</b>	I am satisfied with the working relationship I have with my co-workers.			<b>0.865</b>		<b>0.930</b>	
<b>25</b>	I am satisfied with the level of trust I have at work.			<b>0.845</b>		<b>0.919</b>	

Source: From data analysis

**Table 23 : Relationship with boss**

	<b>Construct</b>	<b>KMO</b>	<b>Bartlett test</b>	<b>Communalities</b>	<b>Total variance explained</b>	<b>Component loading</b>	<b>Reliability-Cronbach alpha</b>
<b>26</b>	I am satisfied with the support I get from my boss.	<b>0.916</b>	<b>0.0001</b>	<b>0.781</b>	<b>80%</b>	<b>0.884</b>	<b>0.949</b>
<b>27</b>	I am satisfied with the working relationship I have with my boss.			<b>0.825</b>		<b>0.908</b>	
<b>28</b>	I am satisfied with the way my boss motivates me to achieve the company goals.			<b>0.822</b>		<b>0.907</b>	
<b>29</b>	I am satisfied with the way my boss treats me.			<b>0.806</b>		<b>0.898</b>	
<b>30</b>	I am satisfied with the way my boss helps me to maintain parity between my personal as well as professional goals.			<b>0.803</b>		<b>0.896</b>	
<b>31</b>	I am satisfied with the way my boss sets realistic goals and achievable targets.			<b>0.749</b>		<b>0.865</b>	

Source: From data analysis

**Table 24: Engagement at work**

	<b>Construct</b>	<b>KMO</b>	<b>Bartlett test</b>	<b>Communalities</b>	<b>Total variance explained</b>	<b>Component loading</b>	<b>Reliability-Cronbach alpha</b>
<b>32</b>	I am satisfied with my job role and responsibilities.	<b>0.903</b>	<b>0.0001</b>	<b>0.598</b>	<b>67%</b>	<b>0.774</b>	<b>0.930</b>
<b>33</b>	I am satisfied with the autonomy I have in my job			<b>0.699</b>		<b>0.836</b>	
<b>34</b>	I am satisfied with the way my views are considered for work-related decision-making.			<b>0.664</b>		<b>0.815</b>	
<b>35</b>	I am satisfied with the promotion policy			<b>0.673</b>		<b>0.820</b>	
<b>36</b>	I am satisfied with the performance appraisal system of the company.			<b>0.660</b>		<b>0.812</b>	
<b>37</b>	I am satisfied with career progression in the company.			<b>0.696</b>		<b>0.834</b>	
<b>38</b>	I am satisfied with the company policy to recognize employee's potential to grow.			<b>0.745</b>		<b>0.863</b>	
<b>39</b>	I am satisfied with the training and development facilities offered by the company.			<b>0.640</b>		<b>0.800</b>	

Source: From data analysis

Based on the above analysis, we have constructed a model to measure the opinion of the employees towards the job satisfaction. Note that, the study aims at measuring the perception of the

employees on the job satisfaction and the same is measured using factors related to job satisfaction. The model below is constructed using the same factors.

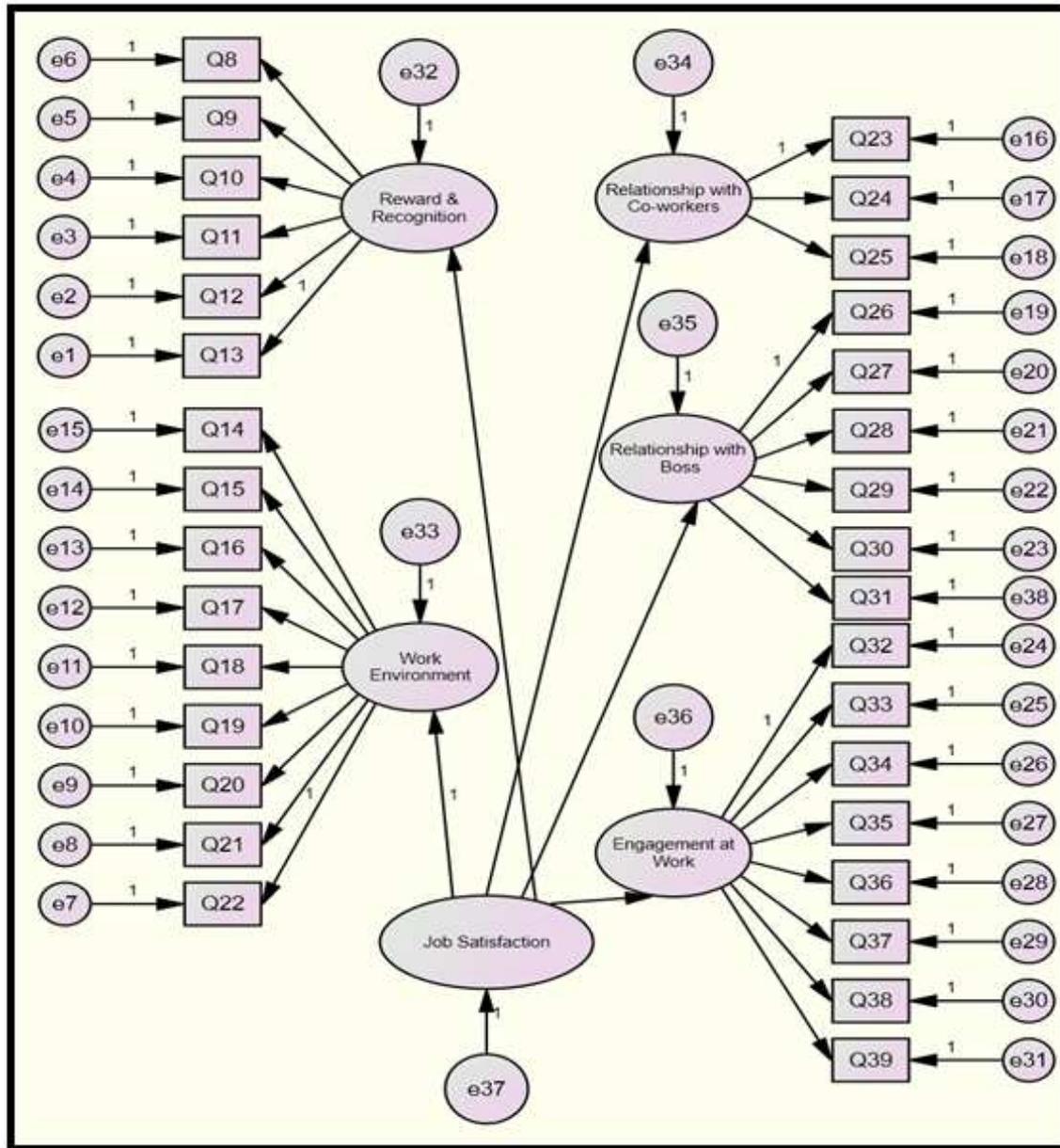


Figure 8: Initial model

Source: From researcher’s data analysis

- |                                      |                           |  |   |
|--------------------------------------|---------------------------|--|---|
| Q8 = Current salary                  | Q9 = Allowances           | Q10 = Annual increment                             | Q11=Recognition policy                  |
| Q12 = Bonuses / incentives           | Q13 = Welfare & benefits  | Q14 =Working hours                                 | Q15 = Workload                          |
| Q16 = Safety measures                | Q17= Refreshment facility | Q18 =Rest room facility                            | Q19=Office rules & regulations          |
| Q20=Parking spaces                   | Q21=Space for lunch&break | Q22 = Family-friendly policies                     | Q23 =Co-workers’ support                |
| Q24=Relationship with co-workers     | Q25 = Trust               | Q26 = Support from boss                            | Q27 = Relationship with boss            |
| Q28 =Motivation from boss            | Q29= Treatment from boss  | Q30 = Boss’s support towards personal & work goals | Q31 = goal-setting by boss              |
| Q32 = Job roles and responsibilities | Q33 = Autonomy            | Q34 = Individual’s role in decision-making         | Q35 = Promotion policy                  |
| Q36 = Performance appraisal          | Q37 = Career progression  | Q38 = Recognition policy                           | Q39 = Training & development facilities |

### Confirmatory Factor Analysis

To test the above model built, we have used Confirmatory Factor Analysis (CFA). In order to finalize the model, one has to look at certain indices and the following discussion is on the same.

#### Model fit indices and explanation

In order to identify the model, we look at the model fit indices. Theoretically it was proven that these indices have to meet certain cut-off values. The following gives the discussion related to the same.

**Table 25: CMIN**

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	130	451.081	366	.002	1.232
Saturated model	496	.000	0		
Independence model	31	7563.879	465	.000	16.266

Source: From researcher’s data analysis

The first of the fit statistics that one has to look at is the CMIN/DF. This gives an indication of whether the fit of the data to the proposed model is good or not-good. The hypothesis tested here is “The proposed model is close to the actual model” and the values of CMIN/DF are looked at to test his hypothesis. Values between 2 and 3 indicates that the fit is a good fit (refer to Ullman, 2001, Schumacker & Lomax, 2004). From the table no 25, one can note that the value (1.232) is less than 2 and we conclude that the fit is a good fit. This indicates that the covariance structure proposed is supported by the sample drawn. We now look at other model fit indices to evaluate the model.

**Table 26: RMR, GFI**

Model	RMR	GFI	AGFI	PGFI
Default model	.066	.900	.864	.664
Saturated model	.000	1.000		
Independence model	.796	.103	.044	.097

Source: From researcher’s data analysis

The above table no 26 gives the indices, Root mean square residual (RMR), Goodness-of fit index (GFI) and Adjusted Goodness-of-fit index (AGFI). A value of RMR close to zero is considered to be a good fit (Hu and Bentler (1999)) and for the current model the value of 0.066 indicates that the model is a good fit. Also,

the values of GFI and AGFI (see Hu and Bentler (1995) indicate that the model is a good fit. This proves Hypothesis 2a.

**Table 27: Baseline comparisons**

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.940	.924	.988	.985	.988
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Source: From researcher’s data analysis

The next set of indices that one has to look at are comparative fit index (CFI), proposed by Bentler (1990) and Tucker-Lewis index (TLI), proposed by Tucker and Lewis (1973). In both the cases, a value close to 1 is considered as a good fit. From the above table no 27, one can note that the values for the model fit are close to the required cut-off and hence we conclude that the model is a good fit.

**Table 28: RMSEA**

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.031	.020	.040	1.000
Independence model	.252	.247	.257	.000

Source: From researcher’s data analysis

Root mean square error of approximation (RMSEA) was proposed by Steiger and Lind (1980) and a value of 0.031 (see, Hu and Bentler (1999), Browne and Cudeck (1993)) indicates a good fit between the hypothesized model and the observed data. In addition to this, the PCLOSE value as suggested by Jöreskog and Sörbom (1996a) has to be >0.50, for a model to be a good fit. For the proposed model, from table no 28, one can see that the RMSEA value is 0.031 and the PCLOSE value is 1. These values indicate that the model is a good fit. Based on the above indices, the final model (figure no 9) was built and the following figure gives the same. Note that, only variable-31 is excluded because of its insignificance.

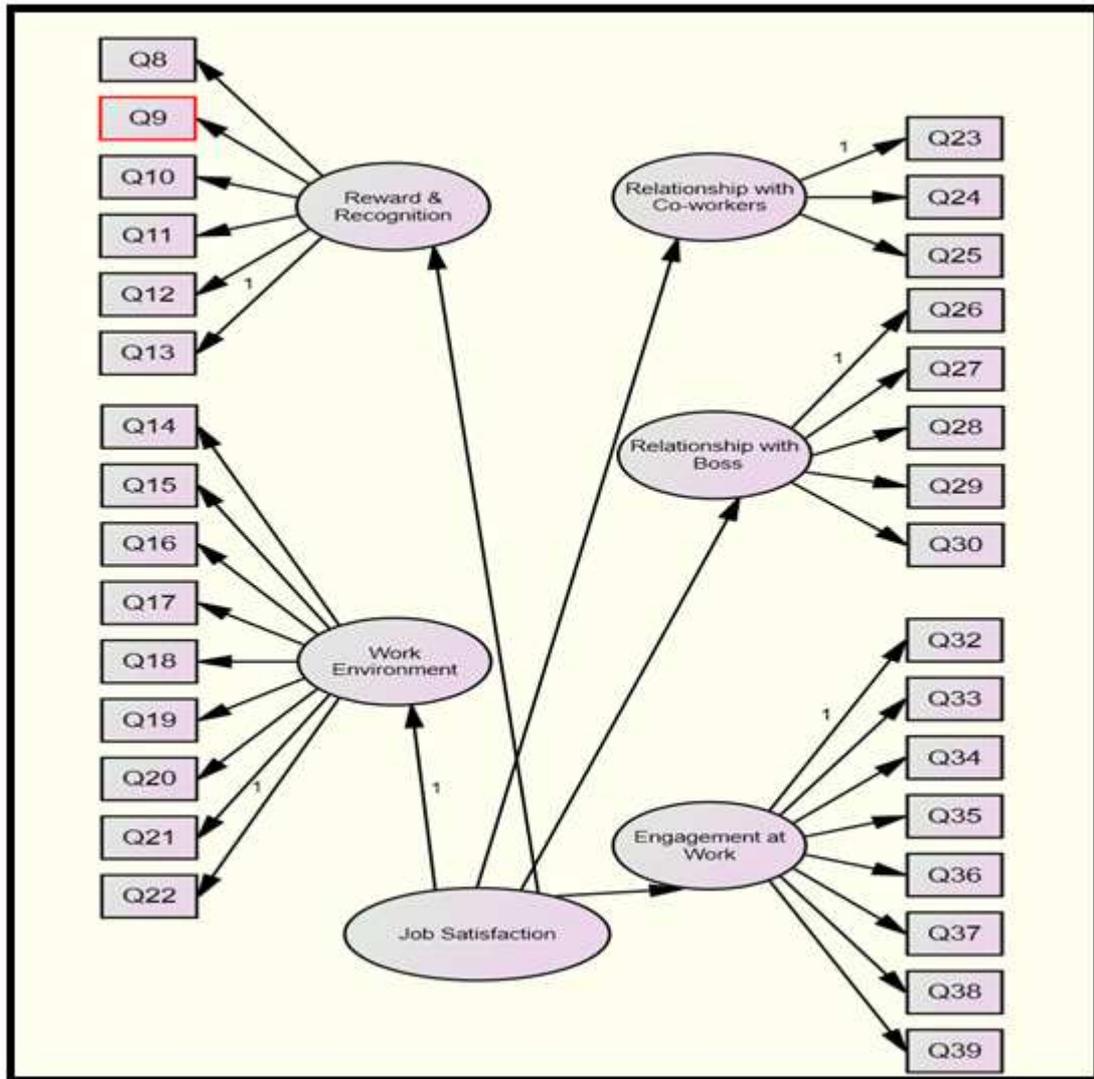


Figure 9: Final model

Source: From researcher's data analysis

Q8 = Current salary	Q9 = Allowances	Q10 = Annual increment	Q11=Recognition policy
Q12 = Bonuses / incentives	Q13 = Welfare & benefits	Q14 =Working hours	Q15 = Workload
Q16 = Safety measures	Q17= Refreshment facility	Q18 =Rest room facility	Q19=Office rules & regulations
Q20=Parking spaces	Q21=Space for lunch & break	Q22 = Family-friendly policies	Q23 =Co-workers' support
Q24=Relationship with co-workers	Q25 = Trust	Q26 = Support from boss	Q27 = Relationship with boss
Q28 =Motivation from boss	Q29= Treatment from boss	Q30 = Boss's support towards personal & work goals	Q31 = goal-setting by boss
Q32 = Job roles and responsibilities	Q33 = Autonomy	Q34 = Individual's role in decision-making	Q35 = Promotion policy
Q36 = Performance appraisal	Q37 = Career progression	Q38 = Recognition policy	Q39 = Training & development facilities

### Significance of regression paths and the standardized regression weights

Based on the above analysis, we conclude that the model built is a good fit and also that the model built will give one an opportunity to understand the factors associated with job satisfaction. One can note that, each directed line into either the variables or the sub-components are the regression paths and testing for their significance will give one the right paths. These paths will help one to focus on the significant variables with respect to the sub-components and the significant sub-components with respect to the satisfaction. The following tables give the same.

The table no 29 below reveals that, to measure whether the employees are satisfied with their job, an organization has to check whether he employees are satisfied with all the factors, such as, 'engagement at work', 'relationship with boss', 'relationship with co-workers', 'reward and recognition', and, 'work environment'. From the above table, we note that, each of the paths proposed are highly significant. Here, paths indicate the link between job satisfaction and all other factor associated with job satisfaction. Since all the paths are significant, we can conclude that, an organization that wishes to measure their employees' job satisfaction, has to consider all the factors, proposed in the model. This proves Hypothesis 3a.

Similarly, an organization, to check their employees are satisfied with respect to each of the factors, has to check whether they are happy with each of the observed aspects under these factors, in the following manner:

- To check whether the employees are satisfied with reward and recognition, the organization has to check whether they are happy with Recognition policy, Bonuses/incentives, Allowances, Annual increment, Welfare and benefit, Current salary.
- To check whether the employees are satisfied with relationship it boss, the organization has to check whether they are happy with Treatment from boss, Relationship with boss, Boss's support towards personal and work goals, Motivation from boss, Support from boss.
- To check whether the employees are satisfied with relationship with co-workers, the organization has to check whether they are happy with Co-workers' support, Relationship with co-workers, Trust.
- To check whether the employees are satisfied with engagement at work, the organization has to check whether they are happy with Individual's role in decision making, Autonomy, Job role & responsibilities, Recognition policy, Training & development facilities, Career progression, Promotion policy, Performance appraisal.
- To check whether the employees are satisfied with work environment, the organization has to check whether they are happy with Rest room facility, Safety measures, Refreshment facility, Office Rules & regulations, Parking spaces, Family-friendly policies, Space for lunch and break, Working hours, Workload.

**Table 29: Regression weights: (Group number 1 - default model)**

			Estimate	S.E.	C.R.	P	Label
Engagement at_Work	<---	Job Satisfaction	1.305	.133	9.845	***	
Relationship with_Boss	<---	Job Satisfaction	1.418	.138	10.277	***	
Relationship with_Co-workers	<---	Job Satisfaction	1.399	.135	10.391	***	
Reward &_Recognition	<---	Job Satisfaction	.897	.097	9.267	***	
Work_Environment	<---	Job Satisfaction	1.000				
Q13	<---	Reward &_Recognition	1.000				
Q12	<---	Reward &_Recognition	1.131	.074	15.209	***	
Q11	<---	Reward &_Recognition	1.079	.071	15.116	***	
Q10	<---	Reward &_Recognition	1.082	.076	14.222	***	
Q9	<---	Reward &_Recognition	1.137	.078	14.571	***	
Q8	<---	Reward &_Recognition	1.004	.080	12.557	***	
Q22	<---	Work_Environment	1.000				
Q21	<---	Work_Environment	.973	.073	13.346	***	
Q20	<---	Work_Environment	1.012	.071	14.239	***	
Q19	<---	Work_Environment	1.036	.079	13.109	***	
Q18	<---	Work_Environment	1.100	.078	14.086	***	
Q17	<---	Work_Environment	1.078	.081	13.269	***	
Q16	<---	Work_Environment	1.087	.081	13.370	***	
Q15	<---	Work_Environment	.869	.082	10.624	***	
Q14	<---	Work_Environment	.912	.086	10.582	***	
Q23	<---	Relationship with_Co-workers	1.000				
Q24	<---	Relationship with_Co-workers	.929	.044	21.084	***	
Q25	<---	Relationship with_Co-workers	.927	.045	20.467	***	
Q26	<---	Relationship with_Boss	1.000				
Q27	<---	Relationship with_Boss	1.002	.052	19.397	***	
Q28	<---	Relationship with_Boss	.985	.053	18.742	***	
Q29	<---	Relationship with_Boss	1.051	.054	19.510	***	
Q30	<---	Relationship with_Boss	1.037	.055	18.964	***	
Q32	<---	Engagement at_Work	1.000				
Q33	<---	Engagement at_Work	1.039	.064	16.338	***	
Q34	<---	Engagement at_Work	1.073	.069	15.608	***	
Q35	<---	Engagement at_Work	.928	.081	11.459	***	
Q36	<---	Engagement at_Work	.934	.081	11.488	***	
Q37	<---	Engagement at_Work	.956	.081	11.775	***	
Q38	<---	Engagement at_Work	1.012	.079	12.765	***	
Q39	<---	Engagement at_Work	.968	.077	12.556	***	

Source: From researcher's data analysis

In order to rank the factors, based on the analysis, the following table no 30 can be used. One can note that, 'engagement at work' has to be given top priority, followed by 'relationship with boss', 'relationship with co-workers', 'reward and recognition', and 'work environment', respectively. This proves Hypothesis 4a and 5a.

Similarly, we can look at the table below to identify the ranking order of the observed aspects, which need to be considered under each of the five factors. It is shown below.

Engagement at work: aspects in the sequence of descending order -

1. Individual's role in decision making
2. Autonomy
3. Job role & responsibilities
4. Recognition policy
5. Training & development facilities
6. Career progression
7. Promotion policy
8. Performance appraisal

'Relationship with boss': aspects in the sequence of descending order-

1. Treatment from boss
2. Relationship with boss
3. Boss's support towards personal and work goals

4. Motivation from boss
5. Support from boss

'Relationship with co-workers': aspects in the sequence of descending order-

1. Co-workers' support
2. Relationship with co-workers
3. Trust

'Reward and recognition': aspects in the sequence of descending order-

1. Recognition policy
2. Bonuses/incentives
3. Allowances
4. Annual increment
5. Welfare and benefit
6. Current salary

'Work environment': aspects in the sequence of descending order-

1. Rest room facility
2. Safety measures
3. Refreshment facility
4. Office Rules & regulations
5. Parking spaces
6. Family-friendly policies
7. Space for lunch and break
8. Working hours
9. Workload

**Table 30: Standardized regression weights: (Group number 1 - default model)**

			Estimate
Engagement at_Work	<---	Job Satisfaction	.981
Relationship with_Boss	<---	Job Satisfaction	.918
Relationship with_Co-workers	<---	Job Satisfaction	.883
Reward &_Recognition	<---	Job Satisfaction	.675
Work_Environment	<---	Job Satisfaction	.758
Q13	<---	Reward &_Recognition	.777
Q12	<---	Reward &_Recognition	.857
Q11	<---	Reward &_Recognition	.859
Q10	<---	Reward &_Recognition	.824
Q9	<---	Reward &_Recognition	.835
Q8	<---	Reward &_Recognition	.748
Q22	<---	Work_Environment	.759
Q21	<---	Work_Environment	.705
Q20	<---	Work_Environment	.760
Q19	<---	Work_Environment	.799
Q18	<---	Work_Environment	.852
Q17	<---	Work_Environment	.809
Q16	<---	Work_Environment	.817
Q15	<---	Work_Environment	.670
Q14	<---	Work_Environment	.702
Q23	<---	Relationship with_Co-workers	.920
Q24	<---	Relationship with_Co-workers	.881
Q25	<---	Relationship with_Co-workers	.864
Q26	<---	Relationship with_Boss	.858
Q27	<---	Relationship with_Boss	.893
Q28	<---	Relationship with_Boss	.877
Q29	<---	Relationship with_Boss	.896
Q30	<---	Relationship with_Boss	.885
Q32	<---	Engagement at_Work	.776
Q33	<---	Engagement at_Work	.796
Q34	<---	Engagement at_Work	.804
Q35	<---	Engagement at_Work	.702
Q36	<---	Engagement at_Work	.699
Q37	<---	Engagement at_Work	.714
Q38	<---	Engagement at_Work	.767
Q39	<---	Engagement at_Work	.757

Source: From researcher's data analysis

## Section V : Discussion

As discussed earlier, organizations need to nurture both the extrinsic and intrinsic factors, which are responsible for developing and maintaining positive effect on the level of job satisfaction among employees. Considering this, for the present study, a theoretical model has been proposed to measure the employee perception on the job satisfaction in the automobile sector. The proposed model consisted of total five factors and each factor was proposed to consist of a number of variables. The factors explained both internal and external work-related issues. The factors are as follows:

- Engagement at work
- Relationship with boss
- Relationship with co-workers
- Reward and recognition
- Work environment

A questionnaire was prepared and administered on the entry-level and middle-level employees working in the Indian automobile industry. Based on the exploratory factor analysis of the data, collected at three different phases by administering the questionnaire, it was revealed that the variables significantly explained the respective factors. Also, there significant consistency levels in measuring the five factors, in measuring the construct. This proved the reliability of the questionnaire.

In the light of the above, it can be concluded that, the sample is leading to the significant consistency levels, in measuring the five factors, using the proposed model. Also, based on the confirmatory factor analysis, it can be said that, proposed model is close to the actual model i.e. the hypothesized model is a good fit, and supported by the collected sample. Therefore, based on the above analysis, we conclude that the model built is a good fit and also that the model built will give one an opportunity to understand the factors associated with job satisfaction.

The analysis indicates that, the proposed model of job satisfaction is reliable, consistent, and good fit to measure job satisfaction. This also proves that, as supported by the existing literature, entry-level and middle-level employees, working in the Indian automobile industry, considered both the internal and external factors responsible for their job satisfaction.

The analysis of regression paths and standardized regression weights also revealed that, to measure whether the employees are satisfied with their job, the organization has to check whether the employees are satisfied with all the factors, proposed in the model. Therefore, an organization can use the above model and questionnaire to measure and investigate the perception among the employees' about the job satisfaction. To investigate whether to measure job satisfaction, all the factors (proposed in the model) need to be considered.

Based on the analysis, one could note that, though all the five factors were significant to investigate job satisfaction, 'engagement at work' had to be given top priority, in order to investigate job satisfaction in the Indian automobile industry. This supported the findings of the existing literature, which proposed that, the internal factors associated with the job itself led to higher job satisfaction. 'Engagement at work' represents the significance of the value of the job an employee perceives and, resultantly, feels highly satisfied by associating him/herself with the same job.

Further, in the above context, 'work environment' was identified as having the least priority in investigating job satisfaction. This also supported the finding from the major studies, conducted earlier. Work environment is a hygiene factor and helps in preventing dissatisfaction. However, the role of the work environment in enhancing job satisfaction is arguable and the present study supported this view.

'Relationship with boss', 'relationship with co-workers' and 'reward and recognition' were identified to be of second, third and fourth priority, respectively. Here, relationship is more psycho-social aspects of work place. And, the data analysis supported that the employees valued these two factors more than work environment (mostly maintenance factors). Also, reward and recognition, though in short-term, helps employees to feel satisfied. Therefore, this factor was given more priorities over work environment.

Data analysis further revealed that, under each factor, the observed aspects might be ranked.

For 'engagement at work', the higher priority was assigned to 'individual's role in decision-making', 'autonomy' and 'job-role & responsibilities'. All the three aspects are connected with the internal aspects of the job itself, and employees perceived them as more significant in making them satisfied with the job. The aspects related mostly with the organization's

policies and strategies, such as, recognition politicizes, training & development facilities, career progression, promotion policy, and, performance appraisal, were ranked low, in order to investigate job satisfaction.

‘Treatment from boss’ was ranked highest under the factor ‘relationship with boss’. This proved that, employees valued the communication style, pattern and behavioral pattern more than the support from the boss (lowest ranked aspect).

However, interestingly, in the case of factor ‘Relationship with co-workers’, aspect, such as, Co-workers’ support was ranked highest by the respondents. Aspect, such as, ‘trust’ was perceived as the lowest ranked aspect, which perhaps indicated that employees did not assign significant value towards the trustworthiness among peers as a factor for job satisfaction.

‘Current salary’ was of the least rank among all the aspects for the factor Reward and recognition’. Recognition policy was ranked the top and it indicated that employees assign more value towards the recognition more than the salary, per say.

In the context of the factor ‘work environment’, rest room facility, safety measures, and refreshment facility were given top priority. This might be true due to the lack of day-to-day hygiene factor, lack of which led to dissatisfaction among the employees. On the other hand, working hours and workload were given factors for the employees, and thus, were perhaps considered as not too relevant in making employees satisfied.

In addition to the above data, the researchers also gathered information based on personal and telephonic interviews conducted with regard to the study. A few significant pointers demonstrated that certain factors were perceived as salient by respondents with regard to job satisfaction:

1. Clarity and preciseness in communication pattern: Keeping the employees informed on various issues like mission, vision, change initiatives and policy changes is a must. This helps in building trust and develops an open-culture organization, which contributes to employees becoming better engaged in job, resulting in greater job satisfaction.
2. Creating a team-culture by making an effort to know employees: Putting the right person in the right job from the point of recruitment and building trust and providing challenges to

employees helps them to contribute significantly in organizations. Additionally, the employees must be groomed into working comfortably in team-based organizational culture to foster trust and joint commitment in them through synergy to achieve organizational goals, which could provide the strategic business advantage to the firm vis-a-vis their competitors.

3. Training and improvement programs: Regular investment in people through training and development initiatives will augment the employees’ skills, knowledge and competencies. This would help them to take on greater challenges in the organization as process-owners with more confidence, which would be beneficial to the organization.
4. Fostering employee empowerment across organizational hierarchy: Decentralizing decision-making process down the line in the organizations makes employees more responsible and accountable. This helps them to dispense off their jobs in a quick and efficient manner thereby increasing the speed of delivering results across various organizational levels.
5. Enriching jobs: Providing Job rotations through job enrichment and enlargement helps in building cross-functional abilities among employees thereby helping them to take on challenges in the jobs in a multi-tasking environment.
6. Adequate and fair compensation and reward systems: Helps in retaining talent by motivating them and creating a sense of satisfaction at the workplace among employees across the firm.
7. Avenues and scope for career-advancement: Through proper performance management, the most talented employees can be tracked and provided avenues for fast track promotions and opportunities for career advancement which would help in talent retention and aid the succession –planning process in the organizations.
8. Provision for regular and honest feedback; Regular and constructive feedback helps employees in raising their bar of performance, and helps to promote loyalty, and creates an open-culture of trust, among employees.
9. Provision for safe working conditions: by proper and timely investments in tools and equipments, safety can be ensured in the workplaces which instils confidence in people and motivates

them. Safe working conditions lessens stress among employees and enhances their levels of performance. It demonstrates the positive ethics for employee safety as a sign of a caring culture within organizations and boosts the morale of the employees.

## Section VI : Scope for further research

From the present study, it can be said that, organizations need to nurture both the extrinsic and intrinsic factors, which are responsible for developing and maintaining positive effect on the level of job satisfaction among employees. The factors explained both internal and external work-related issues: Engagement at work, Relationship with boss, Relationship with co-workers, Reward and recognition, Work environment. Based on the analysis, one could note that, though all the five factors were significant to investigate job satisfaction, 'engagement at work' had to be given top priority, in order to investigate job satisfaction in the Indian automobile industry. Further 'work environment' was identified of having the least priority in investigating job satisfaction. 'Relationship with boss', 'relationship with co-workers' and 'reward and recognition' were identified to be of second, third and fourth priority, respectively. It needs to be considered that, the data was collected from the employees at the entry-level and middle-level positions, from the Automobile Industry.

Keeping this in mind, the above findings may be further validated with the responses from the top management employees, to investigate whether there is a gap in the perception about job satisfaction, across the organizational hierarchical levels. Also, further investigation may be carried to test whether the perception about job satisfaction is significantly consistent across the industries, keeping the role-demand, working conditions, and, nature of the job, in mind.

Further, one may further investigate whether demographic factors, such as age, gender and so on, have any significant role in job satisfaction, in the Indian Automobile and other industries.

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