

# A Study On The Job Satisfaction Of The Employees Of Fireworks Industries

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## INTRODUCTION

The term job satisfaction refers to an individual's pleasurable or positive emotional state toward his or her job. Job satisfaction has been defined as a pleasurable emotional state resulting from the appraisal of one's job<sup>1</sup>; an affective reaction to one's job<sup>2</sup>; and an attitude towards one's job<sup>3</sup>. Weiss (2002) has argued that job satisfaction is an attitude but points out that researchers should clearly distinguish the objects of cognitive evaluation which are affect (emotion), beliefs and behaviours<sup>4</sup>. One of the biggest preludes to the study of job satisfaction were the Hawthorne studies. These studies (1924-1933) primarily credited to Elton Mayo of the Harvard Business School sought to find the effects of various conditions (most notably illumination) on workers' productivity. These studies ultimately showed that novel changes in work conditions temporarily increase productivity (called the Hawthorne Effect). It was later found that this increase resulted, not from the new conditions, but from the knowledge of being observed. This finding provided strong evidence that people work for purposes other than pay, which paved the way for researchers to investigate other factors in job satisfaction. An organization is a human grouping in which work is done for the accomplishment of some specific goals, or missions. The resources of men, money, materials and machinery are collected, coordinated and utilised through people. It is through the satisfied efforts of people that material and monetary resources are effectively utilised for the attainment of common objectives. Fireworks are a device that create a display or make a noise, mainly for entertainment but sometimes for other purposes such as signaling. Some fireworks produce only light or smoke; others only noise; and still others produce light, smoke and noise. Fireworks that only make a loud noise are called firecrackers. Fireworks are also called *pyrotechnics*<sup>5</sup>.

Virudhunagar District is famous for its fireworks and match industries. From a lone factory in 1927, the number of factories steadily increased to 460 by the end of 1999 and to about 536 by the end of March 2005, which includes large, medium and small factories. The growth of fireworks units was phenomenal in Virudhunagar District particularly from 1980 to 2007 (Table 1).

**TABLE 1: GROWTH OF FIREWORKS UNITS IN VIRUDHUNAGAR DISTRICT**

| Year                      | 1927 | 1930 | 1942 | 1980 | 1986 | 1993 | 1996 | 1999 | 2005 | 2007 |
|---------------------------|------|------|------|------|------|------|------|------|------|------|
| Number of fireworks units | 1    | 2    | 3    | 189  | 260  | 324  | 400  | 460  | 536  | 676  |

Source: Office of the Deputy Chief Controller of Explosives, Department of Explosives, Sivakasi.

Nearly 676 fireworks units have been registered under Factories Act in Virudhunagar District. More than 100,000 employees are working in these fireworks units. Out of 676 units registered in Virudhunagar district, 536 fireworks units are registered in Sivakasi Taluk alone.<sup>6</sup>

## STATEMENT OF THE PROBLEM

Fireworks industry plays a vital role in the promotion and the development of economy of Virudhunagar District. The large numbers of fireworks units in India, in general and in Virudhunagar District in particular, are unorganized units and hence the fireworks units are mainly employing unskilled or semiskilled workers who are neither educationally qualified nor technically experienced. Virudhunagar district provides employment opportunity to the fireworks workers throughout the year, the job satisfaction of the people engaged in fireworks activities is not encouraging due to the reason that workers are cheaply available and therefore paid comparatively little wages. In this situation, the need to analyse the job satisfaction of the workers of fireworks units was felt.

## OBJECTIVES OF THE STUDY

The present research endeavor was masterminded with the following objectives:

1. To study the job satisfaction of the workers of fireworks units in Virudhunagar district.
2. To offer suitable suggestions for improving the job satisfaction of the workers of fireworks units in Virudhunagar district.

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## HYPOTHESES

The following sets of hypotheses have been set based on the objectives:

1. There is a significant relationship between income and overall job satisfaction of the respondents.
2. There is a significant relationship between working conditions and overall job satisfaction of the respondents.

## REVIEW OF LITERATURE

There are a number of similar studies in the field of job satisfaction of workers of various industries. But, so far, no attempt has been made to study the job satisfaction of fireworks industry which covers all kinds of labourers namely, women labourers and men labourers.

Laabs and Jennifer in their article, **“Satisfy them with more than money”**, said that employees want fair, competitive compensation but they also want to be needed, valued, appreciated and recognized for their contribution. Money alone will not energize workers or boost performance. Giving employees more of what they want (within reason) will yield employer benefits too-higher production, performance and increased employee devotion.<sup>7</sup>

Amit Madan in his study titled **“In congruence with your interests”** has observed that the problem of choosing a satisfying vocation is universal and all pervasive. The successful ones are those who take their occupational decisions based on their true motivations and interests, while others fail, trying to live the life of someone else. He has also pointed out that the efforts in the direction of determining one's true occupational preferences will not only help them to reach the peak of his/her chosen vocational mountain, but also help them to realize their true potential.<sup>8</sup>

K. Sangeetha in her study titled **“Employee Engagement: An Emerging Paradigm”** has analyzed that the success of a business is directly linked to the commitment of the employees and she also pointed out that successful companies are those that recognize opportunities to foster employee engagement.<sup>9</sup>

K. Mallikarjunan, in his study titled **“Employee Engagement: Emotional bond between Employer and Employee”** has stated that along with common financial incentives like increments, bonuses and other perquisites; a conducive atmosphere in the workplace also raises the employee to the level of an engaged employee, as he feels wanted and respected in the warmth of such a business ambience and develops a sense of trust in the employer.<sup>10</sup>

## RESEARCH DESIGN AND METHODOLOGY

The present study was based on both primary and secondary data. The primary data were collected from the employees of different fireworks units in Virudhunagar District by using the interview schedule method. The secondary data were obtained from the offices of various agencies such as Inspector of Factories, Municipalities, and Central Excise Department, Labour Commission Office and also from various Government Reports connected with fireworks units. The study population consists of 676 fireworks units available in the Virudhunagar District. **Stratified Random Sampling technique** was adopted based on the average number of workers working in each unit. Thus the sample consists of 321 male labourers and 428 female labourers working in the registered fireworks units in Virudhunagar District. Samples were selected by using Random Number Table. The primary data collected and used in the research report covers a period of one year i.e. 2007- 2008.

## JOB SATISFACTION OF THE EMPLOYEES

The concept of job satisfaction is a qualitative one which can be measured indirectly by using Scoring methods. In this connection, the researcher has identified 29 different factors. In order to facilitate scoring each component, a 5 point scale has been used. The 5 points of the scale are **highly satisfactory, satisfactory, moderately satisfactory, not satisfactory, and highly not satisfactory**. The scores allotted to these scales ranging from 0 to 4 are based on the respondent's view. If a worker gives highly satisfactory response to all the 29 components, he will be awarded the maximum of 116 scores and a respondent who has given highly not satisfactory response to all the 29 factors, the maximum score based on 29 components given to him is 0. Hence, the scores secured by the individual respondents will range from **0-116**.

## THE SEATING ARRANGEMENT PROVIDED IN THE UNIT

The life of fireworks workers is full of risks and hazards. Employee safety and health problems at work have been engaging attention nowadays.

**TABLE 2: THE SEATING ARRANGEMENT PROVIDED IN THE UNIT**

| S. No | Seating arrangements provided in the unit | No. of respondents | Percentage |
|-------|-------------------------------------------|--------------------|------------|
| 1.    | Highly satisfactory                       | 209                | 27.90      |
| 2.    | Satisfactory                              | 540                | 72.10      |
|       | Total                                     | 749                | 100.00     |

Source:  
Primary data

It is understood from Table 2 that the seating arrangements are satisfactory to 540 respondents (72.10%), and highly satisfactory to 209 respondents (27.90%).

### THE RESTROOMS PROVIDED IN THE UNIT

Organisations provide a wealth of services that employees find desirable. It includes the provision of company restaurants, lunchroom and restroom.

**TABLE 3: THE RESTROOMS PROVIDED IN THE UNIT**

| S. No | Restrooms provided in the unit | No. of respondents | Percentage |
|-------|--------------------------------|--------------------|------------|
| 1.    | Highly satisfactory            | 191                | 25.50      |
| 2.    | Satisfactory                   | 550                | 73.43      |
| 3.    | Not satisfactory               | 8                  | 01.07      |
|       | Total                          | 749                | 100.00     |

Source: Primary data

It is evident from Table 3 that 550 respondents (73.43%) were satisfied with the restrooms provided, 191 respondents (25.50%) were highly satisfied and 8 respondents (1.07%) were not satisfied with the restrooms provided in the unit.

### THE AMOUNT OF BONUS PROVIDED BY THE COMPANY

The bonus was of various kinds—profits bonus, attendance bonus, service bonus etc., employees want their pay systems and promotion policies to be unambiguous and in line with their expectations.

**TABLE 4: THE AMOUNT OF BONUS PROVIDED BY THE COMPANY**

| S. No | Amount of Bonus     | Number of respondents | Percentage |
|-------|---------------------|-----------------------|------------|
| 1.    | Highly satisfactory | 603                   | 80.51      |
| 2.    | Satisfactory        | 138                   | 18.42      |
| 3.    | Not satisfactory    | 8                     | 01.07      |
|       | Total               | 749                   | 100.00     |

Source: Primary data

It is evident from Table 4 that 603 (80.51%) respondents express the opinion that the amount of bonus given to them by the management is highly satisfactory. To 138 (18.42%) respondents, it is satisfactory and to the rest 8 (1.07%) respondents, it is not satisfactory.

### MEDICAL AND DISABLEMENT BENEFITS PROVIDED BY THE MANAGEMENT

The provision of medical benefits and services can be and are important in maintaining the employees and reducing or keeping turnover and absenteeism.

**TABLE 5: MEDICAL AND DISABLEMENT BENEFITS PROVIDED BY THE MANAGEMENT**

| S. No | Medical and Disablement benefits | No. of respondents | Percentage |
|-------|----------------------------------|--------------------|------------|
| 1.    | Highly satisfactory              | 530                | 70.77      |
| 2.    | Satisfactory                     | 112                | 14.96      |
| 3.    | Not satisfactory                 | 91                 | 12.14      |
| 4.    | Highly not satisfied             | 16                 | 02.13      |
|       | Total                            | 749                | 100.00     |

Source: Primary data

It could be seen from Table 5 that 530 (70.77%) respondents are highly satisfied with the amount of medical and disablement facilities given to them by the management, and to 112 (14.96%) respondents it is satisfactory; to 91 (12.14%) respondents it is not satisfactory and to the rest 16 (2.13%) respondents, it is highly not satisfactory.

### THE SAFETY MEASURES PROVIDED AT THE UNIT

Employee's safety and health should be taken care of in order to protect the employees against accidents, unhealthy working conditions and to protect worker's capacity.

**TABLE 6: THE SAFETY MEASURES PROVIDED AT THE UNIT**

| S. No | Safety measures provided | No. of respondents | Percentage |
|-------|--------------------------|--------------------|------------|
| 1.    | Highly satisfactory      | 142                | 18.96      |
| 2.    | Satisfactory             | 607                | 81.04      |
|       | Total                    | 749                | 100.00     |

Source: Primary data

It could be seen from table 6 that 607 (81.04%) respondents are satisfied, and the rest 142 (18.96%) respondents are highly satisfied with the safety measures provided at the unit.

### GROUP INSURANCE SCHEME IMPLEMENTED IN THE UNIT

Employees State Insurance Act, 1948 deals comprehensively with the health benefits to be provided. The

insurance may be life, health and accident, and it may be for an individual or the group.

**TABLE 7: GROUP INSURANCE SCHEME IMPLEMENTED IN THE UNIT**

| S. No | Group Insurance Scheme implemented | No. of respondents | Percentage |
|-------|------------------------------------|--------------------|------------|
| 1.    | Highly satisfactory                | 124                | 16.55      |
| 2.    | Satisfactory                       | 617                | 82.38      |
| 3.    | Not satisfactory                   | 8                  | 01.07      |
|       | Total                              | 749                | 100.00     |

Source: Primary data

It is deduced from table 7 that 617 (82.38%) respondents are satisfied with the group insurance scheme implemented in the unit, 124 (16.55%) respondents are highly satisfied, and 8 (1.07%) respondents are not satisfied.

### THE WORKING CONDITIONS PROVIDED AT THE UNIT

Employees are concerned with their work environment for both personal comfort and the facilities available for doing the job. The physical surroundings which are safe, clean, comfortable and with a minimum degree of distractions results in a good or positive feeling towards their jobs.

**TABLE 8: THE WORKING CONDITIONS PROVIDED AT THE UNIT**

| S. No | Working conditions provided | No. of respondents | Percentage |
|-------|-----------------------------|--------------------|------------|
| 1.    | Highly satisfactory         | 171                | 22.83      |
| 2.    | Satisfactory                | 578                | 77.17      |
|       | Total                       | 749                | 100.00     |

Source: Primary data

It is deduced from table 8 that 578 (77.17%) respondents are satisfied, and 171 (22.83%) respondents are highly satisfied with the working conditions provided at the unit.

### TRANSPORT FACILITY OFFERED BY THE MANAGEMENT

Companies provide conveyance facilities to their employees from the place of their residence to the place of work as most of the industries are located outside town and all employees may not get housing facilities.

**TABLE 9: TRANSPORT FACILITY OFFERED BY THE MANAGEMENT**

| S. No | Transport facility  | Number of respondents | Percentage |
|-------|---------------------|-----------------------|------------|
| 1.    | Highly satisfactory | 654                   | 87.32      |
| 2.    | Satisfactory        | 95                    | 12.68      |
|       | Total               | 749                   | 100.00     |

Source: Primary data

It could be seen from table 9 that 654 (87.32%) respondents are highly satisfied with the transport facility provided by the management and 95 (12.68%) respondents are satisfied with the transport facility provided by the management.

### FACTOR ANALYSIS

Factor analysis applies advanced statements to identify those which are similar-that is, to identify one or more sets of statements which result in highly correlated responses. The idea is if the responses to a set of three or more statements are highly correlated, then it is believed that the statements measure some factor, which is common to all of them. Factors that are weighted, linear combinations of the variables used in a factor analysis are being analysed. Factors are identified through the use of extremely complex calculations. One of the well-known procedures used to factor analyse data is called Principal Component Analysis. Principal Component Analysis selects factors one at a time using procedures, which best fit each factor to the data. Thus, it uses a best-fit type of procedure in a stepwise manner to select factors, which explain the largest amount of residual variance in the entire set of standardized response scores. The strong point of factor analysis is that it helps the researcher identify the really important characteristics of variables, which are so complex, and frequently, the users have difficulty in identifying those characteristics that are important to them.

**TABLE 10A: COMMUNALITIES**

|                                          | Initial | Extraction |
|------------------------------------------|---------|------------|
| The relationship with the management     | 1.000   | .810       |
| The relationship with the co-workers     | 1.000   | .827       |
| The relationship with other co-workers   | 1.000   | .710       |
| The relationship with other unit workers | 1.000   | .771       |
| The seating arrangements in the unit     | 1.000   | .812       |
| The restroom provided in the unit        | 1.000   | .741       |
| The advances given in the unit           | 1.000   | .695       |

|                                                                |       |      |
|----------------------------------------------------------------|-------|------|
| The amount of Overtime                                         | 1.000 | .802 |
| The amount of loan facilities given                            | 1.000 | .759 |
| The amount of bonus provided by the unit                       | 1.000 | .773 |
| The amount of medical and disablement benefits                 | 1.000 | .857 |
| Management's encouragement to give suggestions for improvement | 1.000 | .745 |
| Knowledge and experience are recognized                        | 1.000 | .784 |
| The functioning of workers committee in the unit               | 1.000 | .609 |
| The functioning of canteen in the unit                         | 1.000 | .800 |
| The views of the workers considered by the management          | 1.000 | .569 |
| Workers' proposal for self improvement                         | 1.000 | .688 |
| The safety measures provided by the unit                       | 1.000 | .798 |
| Group Insurance Scheme implemented in the unit                 | 1.000 | .854 |
| Recruitment procedures adopted in the unit                     | 1.000 | .839 |
| Selection policy of the unit                                   | 1.000 | .788 |
| The freedom given by the management at the work place          | 1.000 | .867 |
| The working conditions at the unit                             | 1.000 | .725 |
| The humanitarian consideration of the management               | 1.000 | .751 |
| The code of discipline adopted by the management               | 1.000 | .747 |
| Recognition of the workers                                     | 1.000 | .863 |
| Consideration of worker's welfare                              | 1.000 | .817 |
| Leave facilities provided by the unit                          | 1.000 | .609 |
| Transport facility offered by the unit                         | 1.000 | .828 |

Extraction Method: Principal Component Analysis

**TABLE 10 B: TOTAL VARIANCE EXPLAINED**

|           | Initial Eigen values |               |              | Extraction Sums of Squared Loadings |               |              | Rotation Sums of Squared Loadings |               |              |
|-----------|----------------------|---------------|--------------|-------------------------------------|---------------|--------------|-----------------------------------|---------------|--------------|
| Component | Total                | % of Variance | Cumulative % | Total                               | % of Variance | Cumulative % | Total                             | % of Variance | Cumulative % |
| 1         | 7.754                | 26.737        | 26.737       | 7.754                               | 26.737        | 26.737       | 4.830                             | 16.654        | 16.654       |
| 2         | 3.071                | 10.591        | 37.329       | 3.071                               | 10.591        | 37.329       | 3.326                             | 11.469        | 28.122       |
| 3         | 2.655                | 9.155         | 46.483       | 2.655                               | 9.155         | 46.483       | 2.628                             | 9.061         | 37.184       |
| 4         | 2.226                | 7.674         | 54.158       | 2.226                               | 7.674         | 54.158       | 2.376                             | 8.192         | 45.376       |
| 5         | 1.994                | 6.876         | 61.033       | 1.994                               | 6.876         | 61.033       | 2.375                             | 8.191         | 53.567       |
| 6         | 1.786                | 6.159         | 67.193       | 1.786                               | 6.159         | 67.193       | 2.269                             | 7.823         | 61.389       |
| 7         | 1.508                | 5.199         | 72.392       | 1.508                               | 5.199         | 72.392       | 2.246                             | 7.746         | 69.135       |
| 8         | 1.243                | 4.286         | 76.678       | 1.243                               | 4.286         | 76.678       | 2.187                             | 7.543         | 76.678       |
| 9         | .994                 | 3.427         | 80.105       |                                     |               |              |                                   |               |              |
| 10        | .924                 | 3.186         | 83.291       |                                     |               |              |                                   |               |              |
| 11        | .847                 | 2.920         | 86.211       |                                     |               |              |                                   |               |              |
| 12        | .707                 | 2.437         | 88.648       |                                     |               |              |                                   |               |              |
| 13        | .568                 | 1.959         | 90.607       |                                     |               |              |                                   |               |              |
| 14        | .544                 | 1.875         | 92.482       |                                     |               |              |                                   |               |              |
| 15        | .342                 | 1.178         | 93.660       |                                     |               |              |                                   |               |              |
| 16        | .336                 | 1.158         | 94.818       |                                     |               |              |                                   |               |              |
| 17        | .280                 | .964          | 95.783       |                                     |               |              |                                   |               |              |
| 18        | .264                 | .910          | 96.693       |                                     |               |              |                                   |               |              |
| 19        | .205                 | .707          | 97.400       |                                     |               |              |                                   |               |              |
| 20        | .162                 | .559          | 97.959       |                                     |               |              |                                   |               |              |
| 21        | .140                 | .482          | 98.440       |                                     |               |              |                                   |               |              |
| 22        | .116                 | .400          | 98.841       |                                     |               |              |                                   |               |              |
| 23        | 8.616E-02            | .297          | 99.138       |                                     |               |              |                                   |               |              |
| 24        | 8.390E-02            | .289          | 99.427       |                                     |               |              |                                   |               |              |
| 25        | 5.694E-02            | .196          | 99.623       |                                     |               |              |                                   |               |              |
| 26        | 4.081E-02            | .141          | 99.764       |                                     |               |              |                                   |               |              |
| 27        | 2.842E-02            | 9.798E-02     | 99.862       |                                     |               |              |                                   |               |              |
| 28        | 2.458E-02            | 8.475E-02     | 99.947       |                                     |               |              |                                   |               |              |
| 29        | 1.541E-02            | 5.314E-02     | 100.000      |                                     |               |              |                                   |               |              |

Extraction Method: Principal Component Analysis.

**TABLE 10: C: ROTATED COMPONENT MATRIX OF THE JOB SATISFACTION**

| S.No | Job satisfaction                                | Rotated factor Component |            |            |            |            |            |            |            |
|------|-------------------------------------------------|--------------------------|------------|------------|------------|------------|------------|------------|------------|
|      |                                                 | 1                        | 2          | 3          | 4          | 5          | 6          | 7          | 8          |
| 1.   | Rel. with management                            | -3.476E-02               | .122       | .415       | .476       | .349       | -.238      | -.463      | 4.718E-02  |
| 2.   | Rel. with the co-workers                        | .110                     | -6.190E-02 | -3.320E-02 | .138       | .112       | -9.511E-02 | .850       | .216       |
| 3.   | Rel. with other category of workers             | .411                     | .136       | .374       | .154       | .138       | -2.141E-02 | .336       | .476       |
| 4.   | Rel. with other unit workers                    | -4.479E-02               | -9.496E-02 | .670       | .399       | .325       | -9.349E-02 | -.191      | 3.907E-02  |
| 5.   | Seating arrangements                            | .818                     | -.197      | .101       | .144       | 8.156E-02  | .170       | 6.442E-02  | .184       |
| 6.   | Restroom provided                               | .338                     | -.285      | .328       | 9.718E-02  | .505       | .230       | .336       | -8.593E-02 |
| 7.   | Advances given                                  | -.292                    | .749       | .153       | -3.667E-02 | 8.926E-02  | 4.546E-02  | 4.473E-02  | -.107      |
| 8.   | Amount of Overtime                              | .225                     | 3.449E-03  | .729       | .160       | -4.519E-02 | -.384      | .213       | 2.201E-02  |
| 9.   | Amount of loan facilities given                 | .614                     | -.120      | .425       | 3.330E-04  | 5.002E-02  | -.426      | 1.401E-02  | 5.012E-02  |
| 10.  | Amount of bonus                                 | -.415                    | .301       | -3.314E-02 | .181       | -.164      | .357       | 6.217E-02  | -.564      |
| 11.  | Amount of sick, and med benefits                | -.246                    | 7.630E-02  | .286       | -.218      | .568       | .418       | -.389      | -.109      |
| 12.  | Mgmt encourages for suggestions for improvement | -.108                    | .802       | 5.562E-02  | -6.031E-02 | -.172      | .144       | 1.553E-02  | -.183      |
| 13.  | Recognition of Knowl and exp.                   | 5.884E-02                | .652       | -.212      | -7.572E-02 | -4.985E-04 | -9.107E-02 | -.526      | .140       |
| 14.  | Functioning of workers' committee               | -6.142E-02               | 1.537E-03  | .101       | -6.935E-02 | -.110      | -.523      | .239       | .498       |
| 15.  | Functioning of canteen                          | .719                     | -.258      | .158       | .253       | -2.385E-02 | -.263      | .238       | 3.392E-02  |
| 16.  | Workers' views considered by the management     | -.219                    | .627       | -.256      | 4.017E-03  | -7.788E-02 | 5.804E-02  | -.123      | .196       |
| 17.  | Workers' proposal for self improvement          | -.474                    | .399       | .233       | -6.427E-02 | -.153      | 8.629E-02  | .421       | -.193      |
| 18.  | Safety measures                                 | .831                     | -7.137E-02 | 8.205E-02  | .155       | .145       | .164       | .126       | 8.697E-02  |
| 19.  | Group Insurance Scheme                          | .639                     | -.111      | -3.124E-02 | -7.470E-02 | .653       | -7.803E-03 | 3.584E-02  | -1.343E-02 |
| 20.  | Recruitment procedures                          | 5.553E-02                | -7.113E-02 | -6.225E-02 | 8.052E-02  | .902       | -3.391E-02 | 6.122E-02  | 4.108E-02  |
| 21.  | Selection policy                                | 5.918E-02                | -8.466E-02 | -6.270E-02 | .757       | .110       | -.391      | -3.650E-02 | .185       |
| 22.  | Freedom in work place                           | .185                     | 3.698E-02  | .108       | .845       | -5.302E-02 | 5.231E-02  | .308       | 7.147E-02  |
| 23.  | Working condition                               | .414                     | -.265      | .360       | .476       | -.193      | .239       | -2.464E-02 | .180       |
| 24.  | Humanitarian consideration                      | -2.903E-02               | -.118      | .192       | .288       | -.171      | 5.458E-02  | -.104      | .757       |
| 25.  | Code of discipline                              | .314                     | .197       | -9.469E-02 | .148       | .164       | -.107      | .304       | .670       |
| 26.  | Recognition                                     | -.575                    | .664       | -.220      | 8.000E-02  | -6.772E-02 | .136       | 6.475E-02  | .102       |
| 27.  | Consideration                                   | -.723                    | .406       | -.100      | .104       | .188       | .203       | .164       | -7.199E-02 |
| 28.  | Leave facilities                                | -.216                    | 7.768E-02  | -.681      | .144       | .103       | -.184      | 1.219E-02  | -.163      |
| 29.  | Transport facility                              | 1.333E-03                | .191       | -4.076E-02 | -.188      | 2.164E-02  | .865       | 6.970E-02  | -3.343E-02 |

**Extraction Method:** Principal Component Analysis. **Rotation Method:** Varimax with Kaiser Normalization. Rotation converged in 29 iterations.

It can be clearly seen from the above Table numbers 10 a.b.c that the 29 variables that had been selected for the job satisfaction have been reduced to 8 important factors. The tables given below give the variables, their factor loadings and the factor name.

**TABLE 11: VARIABLES LOADED ON THE VARIMAX FACTOR 1**

| S. No | Variables loaded                     | Factor loadings | Factor name                                                             |
|-------|--------------------------------------|-----------------|-------------------------------------------------------------------------|
| I     | Safety measures provided by the unit | 0.831           | Safety measures, Seating arrangements and Canteen facility in the unit. |
| II    | Seating arrangements in the unit     | 0.818           |                                                                         |
| III   | Canteen facility in the unit         | 0.719           |                                                                         |
| IV    | Loan facilities given by the unit    | 0.614           |                                                                         |

Source: Primary data

The Table 11 clearly shows that the factor 1 is loaded on the basis of four dimensions. The first variable to be loaded on the factor 1 is safety measures provided by the unit with a factor loading of 0.831, the second variable to be loaded on the factor 1 is seating arrangements in the unit with a factor loading of 0.818, the third variable loaded on the factor 1 is canteen facility in the unit with a factor loading of 0.719, and the fourth variable loaded on the factor 1 is loan facilities given by the unit with a loading of 0.614.

**The factor has been named as safety measures, seating arrangements and canteen facility in the unit on the basis of the factor loadings.**

**TABLE 12: VARIABLES LOADED ON THE VARIMAX FACTOR 2**

| S. No | Variables loaded                                           | Factor loadings | Factor name                                                                            |
|-------|------------------------------------------------------------|-----------------|----------------------------------------------------------------------------------------|
| I     | Management's encouragement for suggestions for improvement | 0.802           | Lack of promotional measures, Allowances given by the unit and recognition of workers. |
| II    | Allowances given by the unit                               | 0.749           |                                                                                        |
| III   | Recognition of workers                                     | 0.664           |                                                                                        |
| IV    | Knowledge and experience are recognized and rewarded       | 0.652           |                                                                                        |
| V     | The view of workers considered by the management           | 0.627           |                                                                                        |
| VI    | Consideration of worker's welfare                          | 0.406           |                                                                                        |

Source: Primary data

The Table 12 shows that the factor 2 is loaded on the basis of 6 dimensions. The first variable loaded on the factor 2 is the management's encouragement for suggestions for improvement with a loading of 0.802, the second variable loaded on the factor 2 is allowances given by the unit with a factor loading of 0.749, the third variable loaded on the factor 2 is recognition of workers with a loading of 0.664, the fourth variable loaded on the factor 2 is knowledge and experience which are recognized and rewarded with a loading of 0.652, the fifth variable loaded is the view of workers considered by the management with a loading of 0.627, the sixth variable loaded on the factor 2 is consideration of worker's welfare with a loading of 0.406.

**The factor has been named as lack of promotional measures, allowances given by the unit and recognition of workers.**

**TABLE 13: VARIABLES LOADED ON THE VARIMAX FACTOR 3**

| S. No | Variables loaded                         | Factor loadings | Factor name        |
|-------|------------------------------------------|-----------------|--------------------|
| I     | Amount of Overtime                       | 0.729           | Amount of Overtime |
| II    | The relationship with other unit workers | 0.670           |                    |

Source: Primary data

The table 13 shows that the factor 3 is loaded on the basis of two dimensions. The first variable loaded on the factor 3 is amount of overtime with a loading of 0.729; the second variable loaded on the factor 3 is the relationship with other unit workers with a loading of 0.670.

**The factor is named as overtime rate.**

**TABLE 14: VARIABLES LOADED ON THE VARIMAX FACTOR 4**

| S. No | Variables loaded                     | Factor loadings | Factor name                  |
|-------|--------------------------------------|-----------------|------------------------------|
| I     | Selection policy of the unit         | 0.757           | Selection policy of the unit |
| II    | The relationship with the management | 0.476           |                              |
| III   | The working condition of the unit    | 0.476           |                              |
| IV    | Leave facility                       | 0.144           |                              |

Source: Primary data

The Table 14 clearly shows that the factor 4 is loaded on the basis of four dimensions. The first variable to be loaded on the factor 4 is the selection policy of the unit with a factor loading of 0.757, the second variable to be loaded on the factor 4 is the relationship with the management with a factor loading of 0.476, the third variable loaded on the factor 4 is the working condition of the unit with a factor loading of 0.476, and the fourth variable

loaded on the factor 4 is leave facility with a loading of 0.144.

**The factor has been named as Selection policy of the unit.**

**TABLE 15: VARIABLES LOADED ON THE VARIMAX FACTOR 5**

| S. No | Variables loaded                               | Factor loadings | Factor name                                |
|-------|------------------------------------------------|-----------------|--------------------------------------------|
| I     | Recruitment procedures adopted by the unit     | 0.902           | Recruitment procedures adopted by the unit |
| II    | Group Insurance Scheme implemented in the unit | 0.653           |                                            |
| III   | Medical and disablement benefits               | 0.568           |                                            |
| IV    | Restroom provided in the unit                  | 0.505           |                                            |

Source: Primary data

The Table 15 clearly shows that the factor 5 is loaded on the basis of four dimensions. The first variable to be loaded on the factor 5 is recruitment procedures adopted by the unit with a factor loading of 0.902, the second variable to be loaded on the factor 5 is group insurance scheme implemented in the unit with a factor loading of 0.653, the third variable loaded on the factor 5 are benefits such as sickness, medical and disablement benefits with a factor loading of 0.568 and the fourth variable loaded is restroom provided in the unit with a loading of 0.505.

**The factor has been named as Recruitment procedures adopted by the unit, on the basis of the factor loadings.**

**TABLE 16: VARIABLES LOADED ON THE VARIMAX FACTOR 6**

| S. No | Variables loaded                          | Factor loadings | Factor name                               |
|-------|-------------------------------------------|-----------------|-------------------------------------------|
| I     | Transport facilities offered by the units | 0.865           | Transport facilities offered by the units |
| II    | Bonus provided by the unit                | 0.357           |                                           |

Source: Primary data

Table 16 shows that the factor 6 is loaded on the basis of two dimensions. The first variable loaded on the factor 6 is transport facilities offered by the units with a loading of 0.865, and the second variable loaded on the factor 6 is bonus provided by the unit with a loading of 0.357.

**The factor is named as transport facilities offered by the units**

**TABLE 17: VARIABLES LOADED ON THE VARIMAX FACTOR 7**

| S. No | Variables loaded                                                | Factor loadings | Factor name                          |
|-------|-----------------------------------------------------------------|-----------------|--------------------------------------|
| I     | The relationship with the co-workers                            | 0.850           | The relationship with the co-workers |
| II    | Workers' proposals for self-improvement are given due weightage | 0.421           |                                      |
| III   | The freedom given by the management at work place               | 0.308           |                                      |

Source: Primary data

The Table 17 clearly shows that the factor 7 is loaded on the basis of three dimensions. The first variable to be loaded on the factor 7 is the relationship with the co-workers with a factor loading of 0.850, the second variable to be loaded on the factor 7 is workers' proposals for self-improvement and are given due weightage with a factor loading of 0.421, the third variable loaded on the factor 7 is the freedom given by the management at the work place with a factor loading of 0.308.

**The factor has been named as the relationship with the co-workers.**

**TABLE 18: VARIABLES LOADED ON THE VARIMAX FACTOR 8**

| S. No | Variables loaded                                 | Factor loadings | Factor name                                                                         |
|-------|--------------------------------------------------|-----------------|-------------------------------------------------------------------------------------|
| I     | The humanitarian consideration of the management | 0.757           | The humanitarian consideration and the code of discipline adopted by the management |
| II    | The code of discipline adopted by the management | 0.670           |                                                                                     |
| III   | The functioning of workers committee in the unit | 0.498           |                                                                                     |
| IV    | The relationship with other category of workers  | 0.476           |                                                                                     |

Source: Primary data

The Table 18 clearly shows that the factor 8 is loaded on the basis of four dimensions. The first variable to be loaded on the factor 8 is the humanitarian consideration of the management with a factor loading of 0.757, the second variable to be loaded on the factor 8 is the code of discipline adopted by the management with a factor loading of 0.670, the third variable loaded on the factor 8 is the functioning of workers committee in the unit with a factor loading of 0.498 and the fourth variable loaded on the factor 8 is the relationship with other category of workers with a loading of 0.476.

**The factor has been named as the humanitarian consideration and the code of discipline adopted by the management on the basis of the factor loadings.**

The factor analysis conducted on the variables for Job satisfaction reduced the total 29 variables into 8 important factors and the factors are summarized as follows.

**1) Safety and welfare measures**

**2) Incentives**

- 3) *Overtime*  
 5) *Recruitment procedures*  
 7) *The peer-relationship, and*  
 4) *Selection policy*  
 6) *Transport facilities.*  
 8) *The humanitarian consideration.*

#### OVERALL JOB SATISFACTION OF THE RESPONDENTS

**TABLE 19: OVERALL JOB SATISFACTION OF THE RESPONDENTS**

| Score  | Number of Respondents | Mid Point | fx                  |
|--------|-----------------------|-----------|---------------------|
| 0-23   | 11                    | 11.5      | 126.5               |
| 23-46  | 49                    | 34.5      | 1690.5              |
| 46-69  | 637                   | 57.5      | 36627.5             |
| 69-92  | 38                    | 80.5      | 3059                |
| 92-116 | 14                    | 104       | 1456                |
| Total  | 749                   |           | $\Sigma fx$ 42959.5 |

With the help of the scores obtained by the respondents, the fireworks workers have been classified into five categories-namely highly not satisfied 11 (1.46%), not satisfied 49 (6.54%), moderately satisfied 637 (85.04%), satisfied 38 (5.07%) and highly satisfied 14 (1.89%).

To calculate the value of mean, the following formula has been used.  $\bar{X} = \frac{\Sigma fX}{N}$

Where  $\bar{X}$  = Arithmetic mean,  $\Sigma$  is sum, 'f' is the frequency, 'X' is the midpoint of the class interval and 'N' is the total number of sample.  $\bar{X} = 57.35$

Since  $\bar{X}$  value is 57.35, it could be inferred that the respondents have medium level of satisfaction with their job.

#### HYPOTHESIS TESTING

Hypothesis testing begins with an assumption, called a hypothesis that we make about a population parameter. Chi-square analysis can be used to test for the statistical significance of differences observed between two equivalent sets of categories, which result from field surveys or experiments.

**TABLE 20: CHI-SQUARE TEST FOR INCOME AND OVERALL JOB SATISFACTION**

|                              | Value | df | Asymp. Sig. (2-sided) |
|------------------------------|-------|----|-----------------------|
| Pearson Chi-Square           | 4.571 | 8  | .802                  |
| Likelihood Ratio             | 5.262 | 8  | .729                  |
| Linear-by-Linear Association | .392  | 1  | .531                  |
| N of Valid Cases             | 749   |    |                       |

a. 6 cells (40.0%) have expected count less than 5. The minimum expected count is .05.

Since the Chi-Square value of significance is found at 0.802, the alternate hypothesis is rejected and the null hypothesis is accepted.

Hence there is no significant relationship between income and overall job satisfaction of the respondents.

**TABLE 21: CHI-SQUARE TEST FOR WORKING CONDITIONS AND OVERALL JOB SATISFACTION**

|                              | Value | df | Asymp. Sig. (2-sided) |
|------------------------------|-------|----|-----------------------|
| Pearson Chi-Square           | .547  | 2  | .761                  |
| Likelihood Ratio             | .966  | 2  | .617                  |
| Linear-by-Linear Association | .510  | 1  | .475                  |
| N of Valid Cases             | 749   |    |                       |

a. 4 cells (66.7%) have expected count less than 5. The minimum expected count is .01

Since the Chi-Square value of significance is found at 0.761, the alternate hypothesis is rejected and the null hypothesis is accepted.

Hence there is no significant relationship between working conditions and overall job satisfaction of the respondents.

#### SUMMARY OF FINDINGS

The researcher has analysed the job satisfaction of the workers of fireworks in Virudhunagar district. The factor analysis conducted on the variables for job satisfaction reduced the total 29 variables into 8 important factors and the factors are summarized as **safety and welfare measures, incentives, overtime, selection policy, recruitment procedures, transport facilities, the peer-relationship, and the humanitarian consideration.**

With the help of 29 different components and on the basis of workers' job satisfaction, the fireworks workers have been classified into five categories-namely workers who are highly not satisfied 11 (1.46%), not satisfied 49

(6.54%), moderately satisfied 637 (85.04%) satisfied 38 (5.07%), and highly satisfied 14 (1.89%).

Two hypotheses were set and it was found that there is **no significant relationship between income and overall job satisfaction of the respondents and there is no significant relationship between working conditions and overall job satisfaction of the respondents**.

Value is also found to know the level of satisfaction of the employees and its value is **57.35**: it could be inferred that the respondents have **medium level of satisfaction** from their job.

### **SUGGESTIONS FOR IMPROVING JOB SATISFACTION**

From the above findings of the study, the following constructive and practicable suggestions have been provided to improve the job satisfaction of workers.

1. An education centre for workers may be opened in each unit so that the value of education and a sense of disciplined way of living can be created in the minds of the workers.
2. Employees may be recruited by adopting scientific methods.
3. Proper training to the employees may be provided to enrich their skills.
4. Adequate incentives in the form of monetary or in the form of benefits like quarters, free education to their children etc may be provided.

### **CONCLUSION**

The most important point to bear in mind when considering job satisfaction is that there are many factors that affect job satisfaction and that what makes workers happy with their jobs varies from one worker to another and from day to day. Apart from the factors mentioned above, job satisfaction is also influenced by the employee's personal characteristics, the manager's personal characteristics and management style, and the nature of the work itself. Managers who want to maintain a high level of job satisfaction in the work force must try to understand the needs of each member of the work force. Also, managers can enhance job satisfaction by carefully matching workers with the type of work. As much as possible, managers should match job tasks to employees' personalities. Good management has the potential for creating high morale, high productivity, and a sense of purpose and meaning for the organization and its employees. Managers who are serious about the job satisfaction of workers can also take other deliberate steps to create a stimulating work environment. One such step is *job enrichment*. Job enrichment is a deliberate upgrading of responsibility, scope, and challenge in the work itself. Job enrichment usually includes increased responsibility, recognition, and opportunities for growth, learning, and achievement.

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