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ANALYTICAL STUDY ON EMPLOYEE'S JOB SATISFACTION IN STANDARD FIREWORKS AT SIVAKASI, TAMIL NADU

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ABSTRACT

Job satisfaction is a key factor for enhancing the level of performance of the employees and productivity, profitability as well as. Job satisfaction depends on the various attitudes of the workers. Job satisfaction is a very important factor for Fire Work Industries to thrive and face competition. When workers are satisfied with their jobs, there is a possibility of enhancing the organizational image, improve productivity, improve the concentration in work, and so on. Therefore, the FWIs should provide all the necessary facilities for a better quality of work-life of their employees. This study has made an attempt to study how far the employees are satisfied with their job and their performance in the fireworks industry and the researcher has made an attempt to study the opinions regarding the wages, satisfaction with job factors, opinions about factory sanitation and cleanliness, the working environment, the welfare facilities, the relationship with management and so on.

Introduction

In the field of entertainment, firework is considered as one of the greatest invention by human being. In manufacturing the firework crackers the art of pyrotechnic is used. The pyrotechnic art form is a mixture of various effects that includes heat, light, smoke, noise, and motion. The art form is believed

that it has a wide spread of manufacturing factories in countries like India and China. The pyrotechnic has a great Indian history. According to the source by the daily news paper the pyrotechnical aspects in India is made by Abdur Razzaq, “the ambassador of the Timurid Sultan Shahrukh to the court of the Vijayanagar king Devaraya II in 1443. In his writing the author has described about the events of the Mahanavami festival, “One cannot without entering into great detail mention all the various kinds of pyrotechny and squibs and various other arrangements which were exhibited”. Italian traveler Ludovico di Varthema who visited India in this period, made a similar observation while describing the city of Vijaynagar and its elephants: “But if at any time they (elephants) are bent on flight it is impossible to restrain them; for this race of people are great masters of making fireworks and these animals have a great dread of fire...”

Fireworks in Indian Scenario

India was most likely the first inventor of gunpowder and a favorite theory says that someone built a fire on top, naturally mined nitrates and sulfur deposits in North India. In the 18th century, a real new effect to produce spark by the addition of iron powder to the mixture of gunpowder is known to Chinese fireworks was used in the manufacture of flowerpot or earth pot in India.

In the end of 19th century electrolysis was extracted from magnesium and aluminum metals. The mixture of pyrotechnic receives various colours with bright white sparks and white light. The modern pyrotechnic industry has developed much safer colored composition with the help of synthetic resin that is polyvinyl chloride.

Development of fireworks in Sivakasi.

In firework manufacturing Sivakasi town of Tamil Nadu is the biggest center for the production of firecrackers. Half of the firecrackers produced in the country are manufactured at sivakasi. Around 4 lakh employees are employed in the firecracker factories in Sivakasi. In the year of 1922, two

pioneers namely Shri Ayya and Shri Shanmuga Nadar went to Calcutta to take training in the match industry and homemade fireworks. They pioneered the first semi-mechanized factory and they switched over to handmade match factory. This ultimately managed to the manufacture of sparkles and other firework crackers. They established the first industrial fireworks factory jointly at Sivakasi in the 1923 Sivakasi has now become the hub of making fireworks. Gradual reduction and total ban on imports helped the indigenous fireworks industry to adopt and make all the items to import including the Chinese crackers. Post-independence, import of crackers in India was encouraged and the present condition is different from the past.

Statement of the problem

Industry development depends upon the satisfaction of the employees working in firework industry. Sivakasi is a fast-growing town in Virudhunagar District with commercial and industrial activities comprising a large number of firework industries. Fireworks are one of the labor-intensive industries. This industry mainly depends on women than men. Most of the women workers come for work to tide over their economic difficulties and supplement their family income. They face many problems at work such as bad working conditions. Hence, in this study, an attempt has been made by the researcher to study how far the employees are satisfied with their job and their performance in the fireworks industry.

Review of literature

Several studies have been undertaken to study women workers in different units. The present study focuses on the problems and quality of work-life of women workers in fireworks in productions. An analysis of the literature review is as follows to study the job satisfaction of the employees at the standard fireworks industry in Sivakasi, the researchers have reviewed the important studies already undertaken on the subject area.

Jnaneswar .K. (2016) Study on the equal of quality of work-life expert by the employees of fireworks unit in Sivakasi". The research has revealed the challenges faced by the women employees in Sivakasi. The author says that job satisfaction is not considered by many industries.

Perumalammal (2015) in her study titled "women workers of fireworks industrial unit in Thayilpatti, Virudhunagar District" conducted a study among the employees in firework industry on quality of life. The sample is

collected from 56 fireworks industries in the Kamarajar area. The investigator has suggested that the working situations of women workers in the industry taken up for study were unacceptable because they were troubled with long hours of work, low wages, and poor health, and the like.

S Mariappan, in his work entitled " A study on job satisfaction of the women workers in the match industries in Elayirampennai," the scholar has sketched the origin and development of match industry in general and analyzed the various factors that impacts on women workers in job satisfaction.

V. Kumaravalli (1991) in her study on "Job Satisfaction of women workers of match industries in Virudhunagar" has analyzed the various job satisfaction factors and suggested suitable measures for job satisfaction. The scholar has come up with the findings that lower-income is the crucial and main reason for job dissatisfaction.

K.Ganesan's (1998) " A study on the working and living conditions of women workers in match industries in Sivakasi area " has provided the significant of work life condition of match industries. The study provides information that unhealthy working condition may lead to job dissatisfaction.

Mr. Jayaraj, in his studies titled," A study on job satisfaction of the women workers in fireworks industries at Virudhunagar District" has specified that most of the firework industry runs the units with women. This is due to the failure of education in early age of childhood. The author has recommended some actions to promote their education in the region.

Scope of the study

The present study has analyzed the job satisfaction of the employees at standard fireworks industries in Sivakasi. The study covers the history and growth of the fireworks industry and the opinion of employees about their job satisfaction.

Objectives of the study

The main objectives of the study are:

To study the origin and growth of the fireworks industry.

To study the profile of the employees in the fireworks industry.

To identify the factors that influence the job satisfaction of employees.

To offer suitable suggestions based on the findings of the study

Hypotheses

There is no significant relationship between social-economic factors and job satisfaction.

There is no significant relationship between welfare facilities and job satisfaction.

Methodology

The present study is based on secondary as well as primary data.

Primary data

Primary data has been collected by conducting personal interviews using a structured interview schedule which has been prepared and adopted to study the demographic factors.

Secondary Data

Secondary data has been collected from periodicals, test books, newspapers, and so on.

Sampling design

To study the level of job satisfaction of the employees, a survey was conducted and for the survey, 150 employees were selected out of 500 workers, using the stratified random sampling technique. Each department is considered to be one stratum. A structured interview schedule was used for collecting the data.

Data processing

The collected data were processed further to frame suitable tables for further analysis and interpretation.

Plan of analysis

The data is analysed by using appropriate statistical tools like percentage analysis, weighted mean, and chi-square test.

Limitations of the study

The study is confined to the employees of fireworks industries in Sivakasi.

The Fireworks industry provides employment opportunities to men and women and this study is focused on women workers.

The sample size is limited to 150 workers due to time constraints.

Inferential Analysis.

SOCIO-ECONOMIC PROFILE OF THE RESPONDENTS

Socio Economic Profile of Respondents		Frequency	Percentage	Total
Gender	Male	65	43.33	150
	Female	85	56.67	
Age	Less than 20	36	24.00	150
	20-30	47	31.33	
	30-40	39	26.00	
	Above 40	28	18.67	
Education	Elementary	73	48.67	150
	Middle School	31	20.67	
	High School	27	18.00	
	Higher Secondary	19	12.67	
Marital Status	Married	89	59.33	150
	Unmarried	47	31.33	
	Window/Widower	14	9.33	
Family Members	Less than 3 Members	78	52.00	150
	3 – 5 Members	56	37.33	
	5 & Above	12	8.00	
Distance from Residence	Less than 5 Kms	61	40.67	150
	5 -10 Kms	33	22.00	
	10 – 15 Kms	47	31.33	
	More than 15 Kms	9	6.00	

Period of Service	Below 5 Years	96	64.00	
	5 – 10 Years	35	23.33	
	Above 10 Years	19	12.67	150
Monthly Income	Below Rs.10,000	24	16.00	
	Rs.10,000 -Rs.15,000	18	12.00	
	Rs.15,000 - Rs.20,000	12	8.00	
	Rs.20,000 & Above	8	5.33	150

Source: Primary data

The above table provides the socio-economic profile of the respondents. From the above table, it was observed that out of the total respondents, 56.67 % of the respondents are female and their proportion or percentage is greater than the percentage of male respondents. 31.33% of stakeholders' age lies between 20 to 30. Furthermore, 48.67% of the respondent's educational qualification is at elementary level education. Out of whole respondents, 59.33% of the respondent's marital status is married. It was concluded that 52 % percent of the respondent's family size is less than 3. Besides, it was observed that 40.67 % of respondents are traveling at least 5 kilometers from their residence to the work spot. 64% of the respondent's service period is less than 5 years.

Personal factors of satisfaction of employees and Job Satisfaction

Job satisfaction also depends on working environment like ventilation, lighting, washing and hygienic working conditions especially for the women workers in fire work industry. Any factor which is related to job as above are responsible job satisfaction. The responses are coded and weightage are given in the following order table shows that job satisfaction of the employee. A Likert scale is a rating scale used to assess opinions, attitudes, or behaviors. Likert scales are popular in survey research because they allow you to easily operationalize personality traits or perceptions. Response scale in which responders specify their level of agreement to the statement are typically in five points: (1) Strongly disagree; (2) Disagree; (3) Neither agree nor disagree; (4) Agree; (5) Strongly agree. Therefore, the five point Likert Sale is used in this study to analyze the opinion of the respondents with regard to above.

Opinion	Strongly Agree(SA)	Agree (A)	No Opinion (N.O)	Dis Agree (DA)	Strongly Dis Agree (SDA)
Weightage	5	4	3	2	1

On the basis of these scores, the following responses of the respondents have been obtained, elucidated, presented and ranked.

Job satisfaction with Working environment													
Factors	No.of respondents	S.A 5	No.of respondents	Agree score 4	No.of respondents	N.O score 3	No.of respondent	D.A score 2	No.of respondents	S.D.A score 1	Total	Mean	Rank
Ventilation	42	210	31	124	44	132	14	28	19	19	513	3.42	V
Washing	56	280	65	260	14	42	9	18	6	6	606	4.04	I
Lighting	29	145	85	340	12	36	15	30	9	9	56	3.73	III
Safety	33	165	71	284	15	45	23	46	8	8	548	3.65	IV
Sanitation	13	65	68	272	9	27	46	92	14	14	470	3.13	VII
Disposal of water and effluents	22	110	54	216	27	81	18	36	29	29	472	3.14	VI
Industrial	37	185	81	324	16	48	9	18	7	7	582	3.88	II

Source: Primary data

The above table elucidates personal factors of satisfaction of employees, working in standard fireworks industry. The job satisfaction depends on the ventilation facility, lighting facility, safety facility, sanitation facility, disposal of water and effluents and industrial relation. These factors are equally important and to find out which factor is highly important, the researcher has calculated intensity value, washing facility has intensity score value, followed by least score is obtained by sanitation facility for employees.

The above table indicates that the ranking decision made by using the five point likert scale. According to respondents response, washing process ranked first, second rank provided for industrial, third rank given to lighting, fourth and fifth rank named as safety, ventilation respectively. In addition, Sixth factor which was ranked for disposal of water and effluents and finally the seventh rank awarded to the factor that is sanitation.

Hypotheses testing

There is no significant relationship between socio-Economic factors and Job satisfaction.

Socio-Economic Factors	Chi-Square Test Value	Constructed Table Value @ 0.05
Gender	28.01	5.99
Age	11.52	5.99
Education	18.96	5.99
Marital Status	5.5	5.99
Monthly Income	8.3	5.99
Period of Service	6.6	5.99

Source: Primary data

From the above table, it is observed that the table Vale 5.99 @ 0.05 is less than the Chi-Square Test Value the Null Hypotheses is rejected. Therefore, it is established from the study that there is a significant relationship between socio-Economic Factors and Job satisfaction.

Suggestions

The detailed analysis of job satisfaction of employees in the fireworks industry has made the researcher to offer the following suggestions for the betterment of the employees in the fireworks industries.

Most of the employees are at the primary level, non-formal education may properly arrange in each factory after the working hours.

Depending upon the number of employees, the restroom and other facilities should be arranged.

To avoid the monotony in the work, the employer can provide recreational facilities like radio and tape recorder in the workplace.

The wages can be incremented to help the workers to improve their standard of living.

As far as the safety measures are concerned, the risk of the fire and explosion is ever-present in the fireworks industry besides health hazards. Installation of emergency doors, fire resistance, warning siren, and training in using them are necessary to minimize the damages of fire.

Loan facilities for an emergency requirement and marriage occasions may also be instituted by the industry.

As far as medical facilities, free medicals check-up should be provided to them. The employee's health fund helps the productivity of the organization.

The employer can come forward to distribute notebooks. Books, bags, and boxes to the children of employees free of cost.

The management may also call for suggestions from the employees for the improvement of the fireworks industry and ask the opinion of employees while implementing working conditions, welfare measures in the fireworks industries.

Conclusion

In the study unit, most of the employees are satisfied with the working conditions, welfare facilities, safety measures, and industrial relations. They may be improved further. The job satisfaction of employees in the fireworks industries may also be further improved. They opined that this employment helps them to increase their income and standard of living.

The Future of the Fireworks Industry

Firecrackers are enjoyed by most of the children during Diwali and other festivals. It is seen that due to crackers air pollution increases and affects health. Fireworks is a device that contains gunpowder and other combustible chemicals which causes striking effects and when ignited they explode. Used in celebrations, festivals, etc. Green crackers do not contain harmful chemicals and reduce air pollution. They are eco-friendly. That is green crackers are less harmful as compared to conventional firecrackers and reduces air pollution. CSIR came up with the solution and developed green crackers which are better than previous sound-emitting crackers and other fireworks. The green crackers developed by the Indian Council of Scientific and Industrial Research (CSIR) include flower pots pencils, sparkles, and Shankar. No doubt that green crackers are environment-friendly and are developed to reduce air pollution that causes health hazards. Now it is for the Future of Fireworks Industry to adapt to the changes contemplated so that they contribute not only to the welfare of its employees but also the Nation as well. The future is “Global Environmentally Friendly Fireworks”.

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