

# Examining Job Satisfaction and its Effect on Employee Productivity of a Textile Industrial Unit

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## Abstract

*Productivity, especially the productivity of human resources, which is one of the necessities of the growth and development of every society and organization; It is not achieved by simply increasing salaries and benefits and amenities. Rather, making people productive depends on creating satisfaction and increasing job satisfaction. The current research is a descriptive-correlation method; The purpose of the research is to investigate the relationship between job satisfaction (Powell-e Specter model) using a 35-question questionnaire and human resource productivity (Achio model) using a 25-question questionnaire; Therefore, a main hypothesis and a secondary hypothesis were designed. The statistical population of employees of the production department of Borujerd textile factory (N = 720) from which a sample of 250 people was selected by simple random. Among the indicators of job satisfaction, promotion with an average of 3.77 is in the highest position and work environment is in the lowest position with an average of 3.16. All components of job satisfaction have a positive and significant relationship with the productivity of human resources; finally, job satisfaction has a correlation coefficient of 574. and  $p < 0.001$  shows a positive and significant correlation with the productivity of human resources. There is a positive relationship between job satisfaction and human productivity. Also, there is a positive relationship between all components of job satisfaction (salaries and benefits, rewards, participation, promotion, work environment) with human resource productivity.*

**Keywords:** Job satisfaction, Poval E specter model, manpower productivity, Achio model, Borujerd textile factory

## INTRODUCTION

In recent years, a lot of attention has been paid to the human resources of organizations, and for this

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Received Date: June 04, 2024

Accepted Date: June 19, 2024

Published Date: June 26, 2024

**Citation:** Mahboubeh Mohammadi, Sevda Sheikhi Lisar, Sakine Sabery Siyahmazgy, Mohammad Taghipour. Examining Job Satisfaction and its Effect on Employee Productivity of a Textile Industrial Unit. International Journal of Behavioral Sciences. 2024; 1 (1): 26–38p.

purpose, effective steps have been taken to institutionalize these movements, which should be looked at from different angles. One of the views that is very popular today is that employees who are satisfied with their work have more productivity or production compared to those who do not feel satisfied. This efficiency and production leads to productivity, which is one of the main goals of organizations [1]. International experts and experts have considered the explosion of productivity as the most important socio-economic event of the last one hundred years in the world. Job satisfaction is defined as the extent to which people are satisfied with their job or how they feel about different aspects of their job, and the variables that positively affect job satisfaction include employment, salary, delegation of authority, and required skills [2]. Job satisfaction makes a person's productivity increase,

a person commits to the organization, physical and mental health of a person is guaranteed, a person's morale increases, he is satisfied with life and learns new job skills quickly [3]. Productivity is one of the factors that ensure the durability and survival of organizations in today's competitive world. Optimum productivity is not achieved by changing structures, adding technology, drafting agendas and issuing directives; Rather, human-centered is any type of individual, social and organizational productivity. Therefore, the most attention and planning in organizational productivity should be directed to human factors. Human resources should be cultivated as the main assets of society and by applying appropriate policies, motivation and effort should be created in them.

It seems that in public and private organizations and departments, these two categories (job satisfaction and productivity of human resources) need more attention and importance to help the organization to achieve organizational goals and aspirations. Considering that job satisfaction as a factor that has a significant impact on job success and causes a feeling of personal satisfaction and increases the productivity of human resources, therefore this research intends to evaluate the job satisfaction of employees as one of the most important factors in increasing efficiency [4]. and creating a positive attitude in a person in a fabric and textile production unit and determine what relationship exists between these two variables and what is the intensity and size of this relationship [5,6].

### **Statement of the Problem**

Job satisfaction is defined as the extent to which people are satisfied with their job or how they feel about different aspects of their job, and the variables that positively affect job satisfaction include employment, salary, delegation of authority, and required skills. Job satisfaction makes a person's productivity increase, a person commits to the organization, physical and mental health of a person is guaranteed, a person's morale increases, he is satisfied with life and learns new job skills quickly. Productivity is one of the factors that ensure the durability and survival of organizations in today's competitive world [7]. Optimum productivity is not achieved by changing structures, adding technology, drafting agendas and issuing directives; Rather, human-centered is any type of individual, social and organizational productivity. Therefore, the most attention and planning in organizational productivity should be directed to human factors. Human resources should be cultivated as the main assets of society and by applying appropriate policies, motivation and effort should be created in them. It seems that in public and private organizations and departments, these two categories (job satisfaction and productivity of human resources) need more attention and importance to help the organization to achieve organizational goals and aspirations. Considering that job satisfaction as a factor that has a significant impact on job success and causes a feeling of individual satisfaction and increases the productivity of human resources, therefore, this research intends to evaluate the employee's job satisfaction and examine the productivity of human resources in the factory [8]. Nasaji Borujerd investigated and determined what is the relationship between these two variables? What is the intensity and size of this relationship?

### **The Importance and Necessity of Research**

In organizations that have assistants in service departments, most of the work in specialized and non-specialized categories is the responsibility of individuals, and attention to human resources and human resource management is more prominent than in organizations where most of the work is done with tools and machines. The characteristics of each job affect the duties of employees, and these are the characteristics that cause job dissatisfaction, lack of trust in organizational commitment. Finding ways to increase employee productivity creates acceleration and dynamism. In addition, the methods of increasing the productivity of employees are among the things that can have successful practical aspects in the organization, because this will reduce costs, reduce organizational conflicts, reduce conflicts, and create a better organizational atmosphere. should be done, the spirit of innovation and initiative should be strengthened, and other issues that systematically affect each other in this connection should be improved or strengthened [9].

Managers should consider improving productivity as their most important task and note that this is not only for the benefit of their organization, but ultimately the country will also benefit from them. Among the technological and human resources and factors effective in improving productivity, the most accessible and abundant resource is the human factor, which can be upgraded to high productivity by increasing his working capacity [10]. With this description, this research has helped to know the job satisfaction and productivity of the employees of Borujerd Textile Factory and with the measures it will take to improve the job satisfaction and improve the productivity of the employees, it can provide the necessary basis for increasing the job and the benefits of the employees. To satisfy the management of the organization and finally the society [11,12].

### **Specific Objectives of the Research**

The present study was conducted in order to investigate job satisfaction and its effect on the productivity of employees of a textile industrial unit. This research was done to answer these goals and hypotheses:

1. Better understanding and recognition of job satisfaction and the influencing factors in its increase
2. Examining the job satisfaction status of employees and its impact on the productivity of human resources

### **Research Hypotheses**

#### ***The Main Hypothesis***

There is a relationship between job satisfaction and human productivity in Borujerd textile factory.

#### **Sub-hypotheses**

1. There is a relationship between salaries and benefits and the productivity of human resources in Borujerd textile factory.
2. There is a relationship between reward and human productivity in Borujerd textile factory.
3. There is a relationship between participation and productivity of human resources in Borujerd textile factory.
4. There is a relationship between promotion and productivity of human resources in Borujerd textile factory.
5. There is a relationship between the work environment and the productivity of human resources in Borujerd textile factory.

### **The Theoretical Framework of Research**

According to the different models in the field of both research variables, job satisfaction indicators including "salary and benefits, reward, participation, promotion, environment" were used to evaluate job satisfaction based on the Payel Specter model.

The current research is descriptive-correlation type. The type of study in the present research is library-field. It is a library because the literature and records of the problem and research topic are collected from real and virtual libraries [13]. It is field because of the questionnaire which is one of the common methods of collecting information in field studies; Used. In this research, information was collected through documents, books, articles and treatises in the field of job satisfaction and employee productivity by referring to libraries and scientific centers [14].

The questionnaires of this research include:

- Questionnaire related to sociological characteristics: workplace, service history, gender, level of education of the respondents.
- Questionnaire related to job satisfaction: for use in the statistical society, terminology was used in this questionnaire, then its validity and reliability were measured. This questionnaire contains 35 questions as described in Table 1 below.

**Table 1.** Job satisfaction questionnaire

| Indicators            | Number of questions                 |
|-----------------------|-------------------------------------|
| Salaries and benefits | 1-2-3-4-5-6                         |
| Work environment      | 7-8-9-10-11-12-13-14-15-16-17-18-19 |
| Promotion             | 20-21-22-23-24                      |
| Participation         | 25-26-27-28-29                      |
| Reward                | 30-31-32-33-34-35                   |

For each of the questionnaire response levels, as described in Table 2, it is used:

**Table 2.** Scoring of job satisfaction questionnaire.

| Number of questions                                                            | Very little | Low | To some extent | Very | Very much |
|--------------------------------------------------------------------------------|-------------|-----|----------------|------|-----------|
| 7-8-9-12-13-15-16-17-18-20-21-22---1-3-4-5<br>23-24-25-26-27-28-29-30-32-34-35 | 1           | 2   | 3              | 4    | 5         |
| 2-6-10-11-14-19-31-33                                                          | 5           | 4   | 3              | 2    | 1         |

Table 3 shows the scoring of the productivity questionnaire.

**Table 3.** Scoring of the productivity questionnaire

| Number of questions | Very little | Low | To some extent | Very | Very much |
|---------------------|-------------|-----|----------------|------|-----------|
| 1-2-3-4-6-7-8-10-11 | 1           | 2   | 3              | 4    | 5         |
| 5-9-12              | 5           | 4   | 3              | 2    | 1         |

The distribution of the questionnaire was done directly and with reference by the researcher.

### Validity and Reliability of the Measurement tool

In this research, for the job satisfaction questionnaire, the opinions of experts (10 respected professors of Azad and Payam Noor University of Tehran) were collected in this field, and finally, many brief amendments were made in this questionnaire and the final questionnaire was prepared for distribution. The validity of this questionnaire is above 0.75 for all questions.

To determine the reliability of the questionnaire, first, both questionnaires were distributed among 30 people from the statistical community, and then SPSS software and Cronbach's alpha method were used, and the alpha value obtained for the job satisfaction questionnaire was 0.77 and for the human resource productivity questionnaire was 0.79.

### Statistical Methods Used for Data Analysis

In order to analyze the statistical data and examine the research hypotheses using SPSS statistical software, descriptive statistics and inferential tests were used according to the type of data and variables, so that first, frequency distribution tables and column charts were used to describe the demographic variables [15,16]. Respondents were paid. In order to use the appropriate indicators of descriptive statistics and inferential statistics, the distribution of the studied variables was determined using the Kolmogorov-Smirnov test. Pearson's correlation coefficient was used to analyze the research hypotheses, and to determine the contribution of each of the predictor variables (components of job satisfaction) in explaining changes in the criterion variable (manpower productivity), multiple regression analysis was used in a step-by-step method.

In this research, mean, standard deviation, frequency tables and related graphs were also used.

*Statistical community and sample size:* The target statistical population in this research is all the workers in the production part of the Borujerd textile factory, which includes the spinning, weaving,

dyeing, final measurement and raw measurement sections, which includes 720 people. According to the size of the statistical population in this research (720), 250 people were selected as the sample size, which is shown in Table 4.

**Table 4.** Statistical population and sample group.

| Sample size S | The population size is N |
|---------------|--------------------------|
| 250 people    | 20 people                |

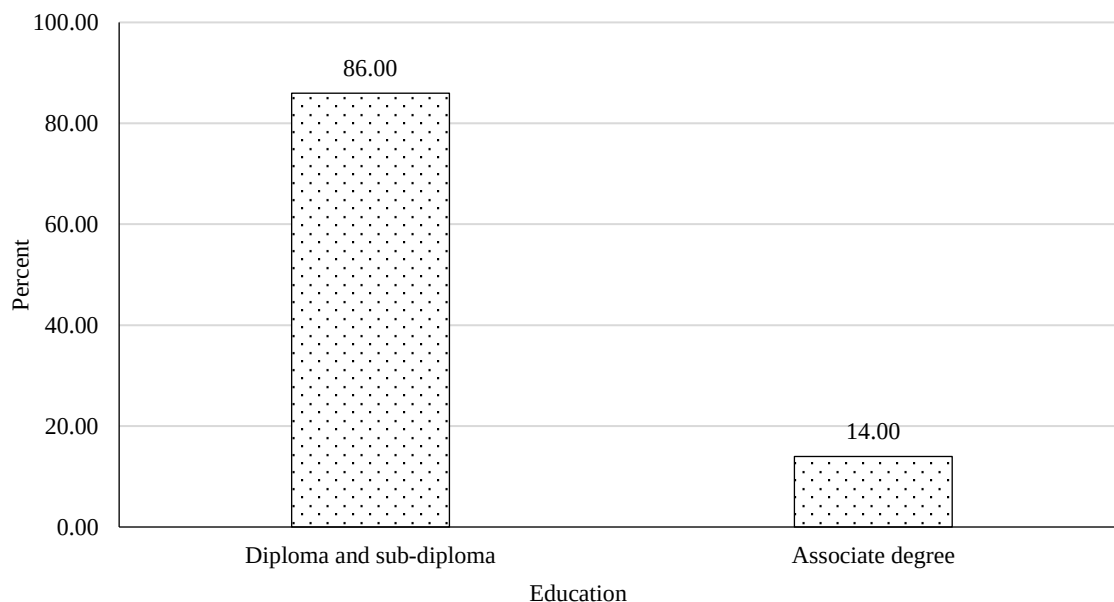
### Description of Demographic Variables

#### Description of the Respondents According to the Level of Education

As shown in Table 5 and Figure 1, the level of education of 86% of the respondents is below diploma and diploma and 14% have post-diploma education.

**Table 5.** Frequency distribution and percentage of respondents according to education

| Education               | Abundance | Percent |
|-------------------------|-----------|---------|
| Diploma and sub-diploma | 215       | 86      |
| Associate degree        | 35        | 14      |
| Total                   | 250       | 100     |



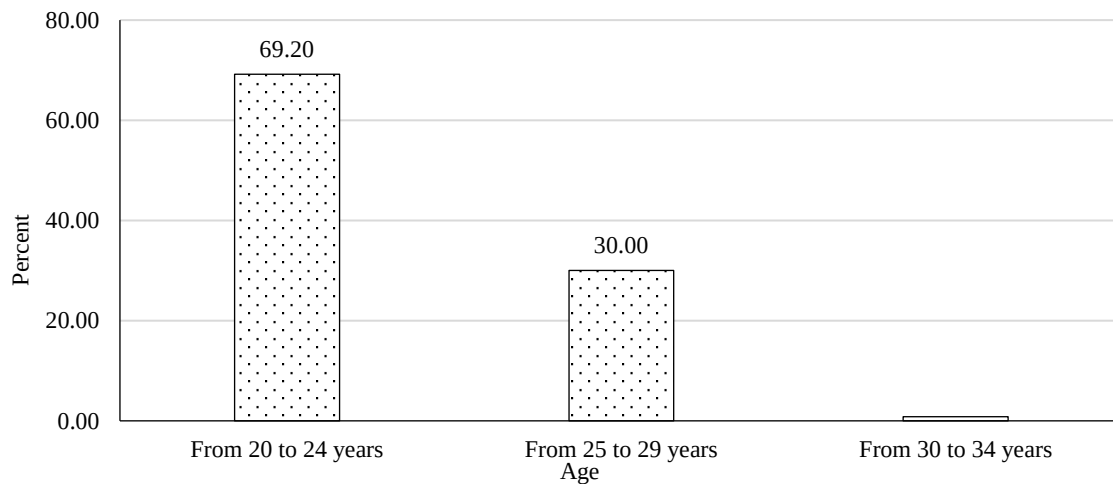
**Figure 1.** Frequency distribution percentage of respondents according to education.

### Description of Respondents by Age

As shown in Table 6 and Figure 2, the age of 69.2 percent of the respondents is between 20 and 24 years, 30 percent of them are between 25 and 29 years old, and about 0.8 percent are between 30 and 34 years old.

**Table 6.** Frequency distribution and percentage of respondents according to age.

| Age in years        | Abundance | Percent |
|---------------------|-----------|---------|
| From 20 to 24 years | 173       | 69/2    |
| From 25 to 29 years | 75        | 30      |
| From 30 to 34 years | 2         | 0/8     |
| Total               | 250       | 100     |



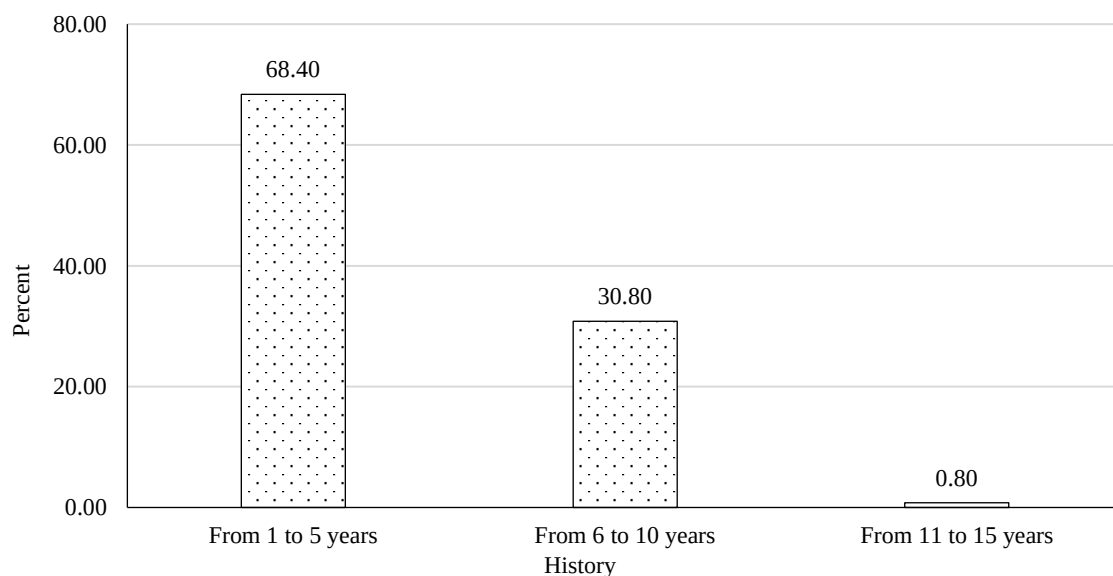
**Figure 2.** Frequency distribution percentage of respondents according to age.

### Description of Respondents According to Work Experience

As the information in Table 7 and Figure 3 shows, the work experience of 68.4 percent of the respondents is between 1 to 5 years, 30.8 percent between 6 and 10 years, and 0.8 percent between 11 and 15 years.

**Table 7.** Frequency distribution and percentage of respondents according to work experience

| History by year     | Abundance | Percent |
|---------------------|-----------|---------|
| From 1 to 5 years   | 171       | 68/4    |
| From 6 to 10 years  | 77        | 30/8    |
| From 11 to 15 years | 2         | 0/8     |
| Total               | 250       | 100     |



**Figure 3.** Frequency distribution percentage of respondents according to work experience.

### Determining the Distribution of the Studied Variables

For the correct use of descriptive statistics indicators and appropriate statistical tests, the normality or non-normality of the distribution of the studied variables was determined by using the Kolmogorov-Smirnov test.

**Table 8.** Kolmogorov-Smirnov test results to determine the normality of the distribution of the studied variables

| Study variables          | Number | Z statistic | significance level (sig) |
|--------------------------|--------|-------------|--------------------------|
| Human power productivity | 250    | 1/332       | 0/067                    |
| job satisfaction         | 250    | 0/877       | 0/425                    |
| Salaries and benefits    | 250    | 1/261       | 0/082                    |
| Reward                   | 250    | 1/472       | 0/062                    |
| Participation            | 250    | 1/341       | 0/065                    |
| Promotion                | 250    | 1/012       | 0/087                    |
| Workplace                | 250    | 1/232       | 0/074                    |

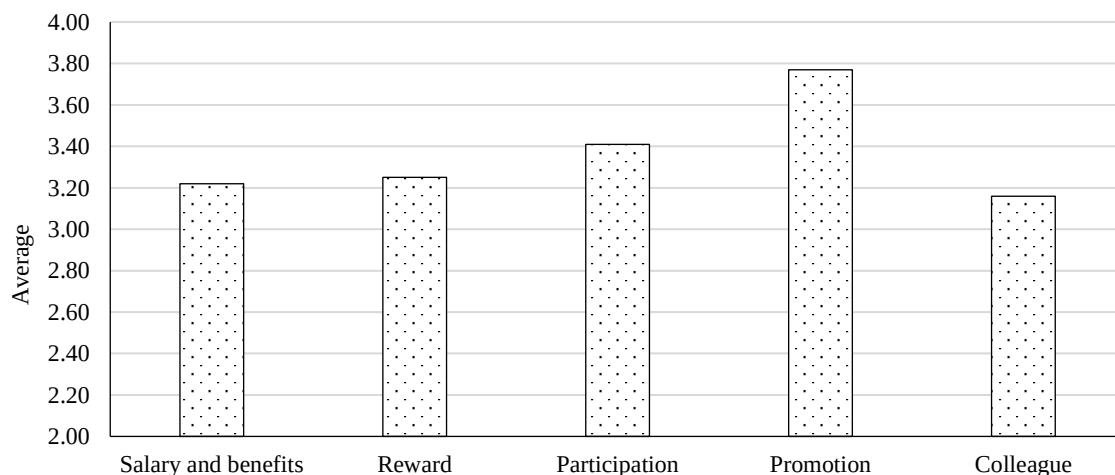
As the results of Table 8 show, the values obtained for the z-statistics calculated at the alpha level of  $\alpha=0.05$  are not significant ( $\text{sig}<0.05$ ), so the assumption of  $H_0$  indicating the normality of the distribution of the variables is not rejected. Therefore, it is concluded that the studied variables have a normal distribution. Therefore, the assumption of normal distribution of variables is maintained. Based on this and according to the scale of the variables, Pearson's correlation coefficient and multiple regression analysis have been used to test the research hypotheses.

#### Description of the Studied Variables

As shown in Table 9 and Figure 4, the mean and standard deviation of the human resource productivity scores is 3.72 and 0.23. The average and standard deviation of job satisfaction scores are 3.33 and 0.15, and among the components of job satisfaction, satisfaction with the work environment has the lowest average (3.16) and promotion has the highest average (3.77).

**Table 9.** Mean and standard deviation of scores related to the studied variables.

| Study variables          | Number | At least | Maximum | Average | standard deviation |
|--------------------------|--------|----------|---------|---------|--------------------|
| Human power productivity | 250    | 3/00     | 4/16    | 3/72    | 0/23               |
| job satisfaction         | 250    | 3/00     | 3/74    | 3/33    | 0/15               |
| Salaries and benefits    | 250    | 2/50     | 3/83    | 3/22    | 0/28               |
| Reward                   | 250    | 2/85     | 3/91    | 3/25    | 0/20               |
| Participation            | 250    | 2/75     | 4/20    | 3/41    | 0/32               |
| Promotion                | 250    | 3/00     | 4/60    | 3/77    | 0/38               |
| Workplace                | 250    | 2/67     | 3/83    | 3/16    | 0/25               |



**Figure 4.** Average scores related to the studied variables.

### Analysis of Research Hypotheses

Since the studied variables have an interval scale and have a normal distribution, Pearson's correlation coefficient was used to check the relationship between the variables.

#### General Hypothesis

There is a relationship between job satisfaction and human productivity in Borujerd textile factory.

**Table 10.** Pearson correlation coefficient between job satisfaction and human resource productivity.

| Variable X       | Y variable               | Pearson correlation coefficient (r) | Number | significance level (sig) |
|------------------|--------------------------|-------------------------------------|--------|--------------------------|
| job satisfaction | Human power productivity | 0/574                               | 250    | 0/000                    |

As the results of Table 10 show, the value obtained for the Pearson correlation coefficient between job satisfaction and human resource productivity ( $r=0.574$ ) is significant at the alpha level of  $\alpha=0.01$  ( $\text{sig}<0.01$ ). Therefore, it is concluded that there is a positive and significant relationship between "job satisfaction" and "manpower productivity" in Borujerd textile factory with a confidence of 99%. That is, with the increase of job satisfaction scores, the productivity scores of human resources also increase. Therefore, the above hypothesis is confirmed.

#### Hypothesis 1

There is a relationship between salaries and benefits and productivity of human resources in Borujerd textile factory.

**Table 11.** Pearson's correlation coefficient between salaries and benefits and human resource productivity

| Variable X            | Y variable               | Pearson correlation coefficient (r) | Number | significance level (sig) |
|-----------------------|--------------------------|-------------------------------------|--------|--------------------------|
| Salaries and benefits | Human power productivity | 0/197                               | 250    | 0/002                    |

As the results of Table 11 show, the value obtained for Pearson's correlation coefficient between salaries and benefits and human resource productivity ( $r=0.197$ ) is significant at the alpha level of  $\alpha=0.01$  ( $\text{sig}<0.01$ ). Therefore, it is concluded that there is a positive and significant relationship between "salaries and benefits" and "manpower productivity" in Borujerd textile factory with a confidence of 99%. That is, with the increase in the scores of salaries and benefits, the scores of the productivity of human resources also increase. Therefore, the above hypothesis is confirmed.

#### Hypothesis 2

There is a relationship between reward and productivity of human resources in Borujerd textile factory.

**Table 12.** Pearson's correlation coefficient between reward and productivity of human resources

| Variable X | Y variable               | Pearson correlation coefficient (r) | Number | significance level (sig) |
|------------|--------------------------|-------------------------------------|--------|--------------------------|
| Reward     | Human power productivity | 0/380                               | 250    | 0/000                    |

As the results of Table 12 show, the value obtained for Pearson's correlation coefficient between reward and productivity of human resources ( $r=0.380$ ) at the alpha level of  $\alpha=0.01$  is significant ( $\text{sig}<0.01$ ), so It is concluded that with a confidence of 99%, there is a positive and significant relationship between "reward" and "manpower productivity" in Borujerd textile factory. That is, with the increase of reward scores, the productivity scores of human resources also increase. Therefore, the above hypothesis is confirmed.

#### Hypothesis 3

There is a relationship between participation and productivity of human resources in Borujerd textile factory.



**Table 13.** Pearson correlation coefficient between participation and productivity of human resources.

| Variable X    | Y variable               | Pearson correlation coefficient (r) | Number | Significance level (sig) |
|---------------|--------------------------|-------------------------------------|--------|--------------------------|
| Participation | Human power productivity | 0/190                               | 250    | 0/003                    |

As the results of Table 13 show, the value obtained for the Pearson correlation coefficient between participation and productivity of human resources ( $r=0.190$ ) at the alpha level of  $\alpha=0.01$  is significant ( $\text{sig}<0.01$ ), so It is inferred that there is a positive and significant relationship between "participation" and "manpower productivity" in Borujerd textile factory with a confidence of 99%. That is, with the increase of the participation scores, the productivity scores of human resources also increase. Therefore, the above hypothesis is confirmed.

#### **Hypothesis 4**

There is a relationship between promotion and productivity of human resources in Borujerd textile factory.

**Table 14.** Pearson correlation coefficient between promotion and manpower productivity.

| Variable X | Y variable               | Pearson correlation coefficient (r) | Number | significance level (sig) |
|------------|--------------------------|-------------------------------------|--------|--------------------------|
| Promotion  | Human power productivity | 0/420                               | 250    | 0/000                    |

As the results of Table 14 show, the value obtained for Pearson's correlation coefficient between promotion and manpower productivity ( $r=0.420$ ) at alpha level  $\alpha=0.01$  is significant ( $\text{sig}<0.01$ ), so It is concluded that with a confidence of 99%, there is a positive and significant relationship between "promotion" and "manpower productivity" in Borujerd textile factory. That is, with the increase of promotion scores, the productivity scores of human resources also increase. Therefore, the above hypothesis is confirmed.

#### **Hypothesis 5**

There is a relationship between co-worker and human productivity in Borujerd textile factory.

**Table 15.** Pearson's correlation coefficient between co-worker and manpower productivity

| Variable X | Y variable               | Pearson correlation coefficient (r) | Number | Significance level (sig) |
|------------|--------------------------|-------------------------------------|--------|--------------------------|
| Workplace  | Human power productivity | 0/344                               | 250    | 0/000                    |

As the results of Table 15 show, the value obtained for the Pearson correlation coefficient between the work environment and the productivity of human resources ( $r=0.344$ ) at the alpha level of  $\alpha=0.01$  is significant ( $\text{sig}<0.01$ ). Therefore, it is concluded that there is a positive and significant relationship between "work environment" and "manpower productivity" in Borujerd textile factory with 99% confidence. That is, with the increase in the scores of the work environment, the scores of the productivity of the human force also increase. Therefore, the above hypothesis is confirmed.

### **Correlation Matrix Between Job Satisfaction and its Dimensions with Human Resource Productivity**

As the results of Table 16 show, there is a positive and significant correlation between job satisfaction and its components with human resource productivity in Borujerd textile factory ( $\text{sig}<0.01$ ). The obtained correlation coefficients show that among the components of job satisfaction, the promotion component has a stronger correlation ( $r=0.420$ ) with the productivity of human resources, and the participation component has a weaker correlation ( $r=0.190$ ).

**Table 16.** Correlation matrix between job satisfaction and its dimensions with manpower productivity.

| Variables                | Job satisfaction | Salaries and benefits | Reward  | Participation | Promotion | Workplace |
|--------------------------|------------------|-----------------------|---------|---------------|-----------|-----------|
| job satisfaction         | 1                |                       |         |               |           |           |
| Salaries and benefits    | 0/530**          | 1                     |         |               |           |           |
| Reward                   | 0/626**          | 0/094                 | 1       |               |           |           |
| Participation            | 0/471**          | 0/035                 | 0/108   | 1             |           |           |
| Promotion                | 0/587**          | 0/168**               | 0/051   | 0/271**       | 1         |           |
| Workplace                | 0/477**          | 0/244**               | 0/119   | 0/034         | 0/164**   | 1         |
| Human power productivity | 0/574**          | 0/197**               | 0/380** | 0/190**       | 0/420**   | 0/344**   |

\*\*sig&lt;0/01 n=250

### Regression Analysis of Manpower Productivity Based on the Dimensions of Job Satisfaction

In order to predict the productivity of human resources based on the dimensions of job satisfaction, multiple regression analysis has been used in a step-by-step method. The dimensions of job satisfaction as a predictor and the variable of human power productivity as a criterion variable have been included in the analysis.

**Table 17.** Multiple correlation coefficient (R), determination coefficient (R<sup>2</sup>) and relevant significance test(f)

| Steps  | Predictor variables remaining in the analysis | Multiple correlation coefficient (R) | The coefficient of determination (R <sup>2</sup> ) | statistics F | Significance level (sig) |
|--------|-----------------------------------------------|--------------------------------------|----------------------------------------------------|--------------|--------------------------|
| Step 1 | Promotion                                     | 0/420                                | 0/18                                               | 53/245       | 0/000                    |
| Step 2 | Promotion and reward                          | 0/553                                | 0/31                                               | 54/325       | 0/000                    |
| Step 3 | Promotion and reward and Workplace            | 0/602                                | 0/36                                               | 46/723       | 0/000                    |

As the results of Table 17 show, in step 1, the promotion dimension remains in the analysis, which alone explains about 18% of the variance of the manpower productivity scores (R<sup>2</sup>=0.18, sig<0.001). In step 2, the variables of promotion and reward are left in the analysis, and these two variables explain about 31% of the variance of the manpower productivity scores (R<sup>2</sup>=0.31, sig<0.001) and in step 3, the variables of promotion, reward and colleague are left in the analysis. It remains that these three variables explain about 36% of the variance of human resource productivity scores (R<sup>2</sup>=0.36, sig<0.001).

**Table 18.** Standardized regression coefficients  $\beta$  and the corresponding significance test (t).

| Steps                                | Predictor variables   | Standard coefficients ( $\beta$ ) | T statistic | Significance level (sig) |
|--------------------------------------|-----------------------|-----------------------------------|-------------|--------------------------|
| Step 1                               | Promotion             | 0/420                             | 7/297       | 0/000                    |
| Step 2                               | Promotion             | 0/402                             | 7/576       | 0/000                    |
|                                      | reward                | 0/359                             | 6/767       | 0/000                    |
| Step 3                               | Promotion             | 0/363                             | 7/042       | 0/000                    |
|                                      | reward                | 0/332                             | 6/478       | 0/000                    |
|                                      | Colleague             | 0/245                             | 4/711       | 0/000                    |
| Variables excluded from the analysis | Salaries and benefits | 0/048                             | 0/912       | 0/363                    |
|                                      | participation         | 0/070                             | 1/318       | 0/189                    |

As the results of Table 18 show, among the predictor variables included in the analysis based on the highest level of significance, in step 1, respectively, the promotion variable, in step 2, promotion and reward, and in step 3, promotion, reward and colleague remained in the analysis, and the variables

salaries and benefits and participation are excluded from the analysis. The positive coefficients of beta ( $\beta$ ) calculated for promotion (0.363), reward (0.332) and colleague (0.245), indicate that by increasing the scores of these variables by one standard deviation, the scores of human resources productivity Borujerd textile factory increases by 0.36, 0.33 and 0.25 standard deviation respectively.

## CONCLUSION

The current research has studied the "yin relationship between job satisfaction and productivity of the employees of Borujerd textile factory" in the production area. For this purpose, the Job Satisfaction Questionnaire "Poal E Specter" with 35 five-choice questions: "Completely Agree, Agree, Somewhat Agree, Disagree, Totally Disagree" and the Human Force Productivity Questionnaire "Ajio" which includes 25 five-choice questions: "Completely" Agree, Agree, Somewhat Agree, Disagree, Completely Disagree" was distributed among 250 people and to extract the results, first the data was coded, and after entering the coded information, using the SPSS software package, the data from the questionnaire was extracted and then As the research findings show, there is a significant relationship between job satisfaction and human resource productivity.

As the research findings show, there is a significant relationship between job satisfaction and human resource productivity, and the results are as follows:

As the information in Table 5 shows, the level of education of 86% of the respondents is below diploma and diploma, and 14% have post-diploma education.

As the information in Table 6 shows, the age of 69.2 percent of the respondents is between 20 and 24 years, 30 percent of them are between 25 and 29 years old, and about 0.8 percent are between 30 and 34 years old.

As the information in Table 7 shows, the work experience of 68.4 percent of the respondents is between 1 and 5 years, 30.8 percent between 6 and 10 years, and 0.8 percent between 11 and 15 years.

As the result of Table 9 shows, the average and standard deviation of the human resource productivity scores is 3.72 and 0.23. The mean and standard deviation of job satisfaction scores are 3.33 and 0.15, and among the components of job satisfaction, satisfaction with the work environment has the lowest average (3.16) and promotion has the highest average (3.77).

As the results of Table 10 show, the value obtained for the Pearson correlation coefficient between job satisfaction and human resource productivity ( $r=0.574$ ) at the alpha level of  $\alpha=0.01$  is significant ( $\text{sig}<0.01$ ), so it is concluded that there is a positive and significant relationship between "job satisfaction" and "manpower productivity" in Borujerd textile factory with 99% confidence. That is, with the increase of job satisfaction scores, the productivity scores of human resources also increase. Therefore, the above hypothesis is confirmed.

As the results of Table 14 show, there is a positive and significant correlation between job satisfaction and its components with human resource productivity in Borujerd textile factory ( $\text{sig}<0.01$ ). The obtained correlation coefficients show that among the components of job satisfaction, the promotion component has a stronger correlation ( $r=0.420$ ) with the productivity of human resources, and the participation component has a weaker correlation ( $r=0.190$ ).

As the results of Table 17 show, in step 1, the promotion dimension remains in the analysis, which alone explains about 18% of the variance of human resource productivity scores ( $R^2=0.18$ ,  $\text{sig}<0.001$ ). In step 2, the variables of promotion and reward are left in the analysis, and these two variables explain about 31% of the variance of the manpower productivity scores ( $R^2=0.31$ ,  $\text{sig}<0.001$ ) and in step 3, the variables of promotion, reward and work environment are included in the analysis. It remains that these three variables explain about 36% of the variance of human resource productivity scores ( $R^2=0.36$ ,  $\text{sig}<0.001$ ).

As the results of Table 18 show, among the predictor variables included in the analysis based on the highest level of significance, in step 1, the variable of promotion, in step 2, promotion and reward, and in step 3, promotion, reward and work environment remained in the analysis. And the variables of salaries and benefits and participation have been excluded from the analysis. The positive coefficients of beta ( $\beta$ ) calculated for promotion (0.363), reward (0.332) and work environment (0.245) show that by increasing the scores of these variables by one standard deviation, the scores of labor productivity Humanity of Borujerd textile factory increases by 0.36, 0.33 and 0.25 standard deviations respectively.

### Research Proposals

According to the findings of the research, in order to achieve job satisfaction and higher productivity, it is suggested to the factory management:

Hire people with more work experience.

The findings of the research indicate that the factory is not in a favorable position in the field of employee satisfaction, so it is suggested that the factory should try to increase the satisfaction of the work environment by taking decisions such as doing collaborative work.

The findings of the research indicate that the factory is not in a favorable position in terms of salaries and benefits, so it is suggested that the factory adopt measures and plans such as upgrading rewards based on merits to increase the salaries and benefits of employees.

According to the tables, regarding employees' perception of job satisfaction (additional benefits, clarity of the organization's goals, etc.), research findings indicate that employees do not have the desired satisfaction in this field, so it is suggested that the organization take measures, for example , creating grounds for career advancement, creating a fair division of work, creating a job rotation, creating a favorable environment so that employees can come to their workplace without any worries.

### Research Limitations

In every research work, a number of factors and variables affect its process and the researcher tries to eliminate its effects. However, the following factors probably had an effect on the research, which was not possible for the researcher to control.

- The questionnaire itself is considered a limitation. This means that the questionnaire examines people's attitudes, not reality, which can be considered as a limitation.
- In some of the units, the nature of the subjects was such that they did not welcome the completion of the questionnaire due to their busy schedule, and the researcher distributed the questionnaires more in the units that showed a greater desire to complete the questionnaire.

### Author contributions

All authors contribute to this research.

Conceptualization, MM and MT; methodology, MM and MT; software, SL and MT; validation, MM and SS; formal analysis, SL and MT; investigation, MM and MT; resources, SL and MT; data curation, S and MT; writing—original draft preparation, MM and MT; writing—review and editing, SL and MT; visualization, MM and MT; supervision, SS and MT; project administration, MM and MT. All authors have read and agreed to the published version of the manuscript.

### Conflict of interest

The authors declare no conflict of interest.

### REFERENCES

1. Taghipour M, Seraj F, Hassani MA, Farahani Kheirabadi S. Risk analysis in the management of urban construction projects from the perspective of the employer and the contractor. *International Journal of Organizational Leadership*. 2015;4:356–73.

2. Mahboobi M, Taghipour M, Ali Azadeh M. Assessing ergonomic risk factors using combined data envelopment analysis and conventional methods for an auto parts manufacturer. *Work*. 2020 Jan 1;67(1):113–28.
3. Taghipour, Mahboubi, Karagozlu. Investigating the impact of information and communication technology on knowledge sharing barriers in the knowledge management process (including a case study). *Information processing and management*. 2016 Jun 21;84(31):1049–74.
4. Taghipour M. Effect of integrated marketing communication on brand value with the role of agency's reputation (including case study). *Journal of Process Engineering*. 2019 Jan 10;5(11):30–44.
5. Azarian R, Taghipour M. The impact of implementing inclusive quality management on organizational trust (case study: education). detail. 2020 Jul;6(7).
6. Ghadamzan Jalali A, Habibi Machiani H, Taghipour M, Moshtaghi S. Explain the relationship between intellectual capital, organizational learning and employee performance of Parsian Bank branches in Guilan province. *Educational Administration Research*. 2020 Aug 22;11(44):87–102..
7. Mohammadi S, Taghipour M, Mahboobi M. Investigating the role and impact of using ICT tools on evaluating of the performance of service organizations. *Iranian Journal of Information Processing and Management*. 2021 Aug 23;37(1):1–26.
8. Abdi J, Safariyan S, Usefi R, Taghipour M. Predicting entrepreneurial marketing through strategic planning (including case study). *Educational Administration Research*. 2019 May 22;10(39):127–46.
9. Arsalani M, Esmaeilkhoo H, Taghipour D. Investigating the effect of social media marketing activities on brand awareness. *International Technology and Science Publications (ITS)*. 2021;4(2):18–31.
10. Khorasani Z, Taghipour M. The location of industrial complex using combined model of fuzzy multiple criteria decision making (including case study). *International Journal of Innovation Scientific Research and Review*. 2020;2(7):268–80.
11. Hoseinpour Z, Taghipour M, Beigi JH, Mahboobi M. The problem solving of bi-objective hybrid production with the possibility of production outsourcing through imperialist algorithm, NSGA-II, GAPSO hybrid algorithms. *Turkish Journal of Computer and Mathematics Education (TURCOMAT)*. 2021 Oct 1;12(13):8090–111.
12. Baghipour Sarami F, Bozorgiamiri A, Mououdi MA, Taghipour M. Modeling of Nurses' shift Work schedules According to Ergonomics: A case study in Imam sajjad (As) Hospital of Ramsar. *Iranian Journal of Ergonomics*. 2016 Jun 10;4(1):1–2.
13. Habibi Machani A, Taghipour M, Foladi Talari Y, Savar Rakhsh M. Designing a smart model for managing Iranian chain stores based on business intelligence (case study of proma chain store). *Journal of Advertising and Sales Management*. 2020 Dec 21;1(4).
14. Sharifzadeh S, Taghipour M. Evaluating the efficiency of dam construction management and ways to improve it. *Building Engineering*. 2023 Oct 23;1(1):210.
15. Taghipour M, Mahboobi M, Nikoeifar A, Mowlodi ES. Analysing the effects of physical conditions of the workplace on employee's productivity (including case study). *International Journal of Environmental Protection and Policy*. 2015 Jul;3(4):111–9.
16. Karimi M, Tabesh MH, Taghipour M. The impact of environmental transformational leadership on organizational citizenship behavior (case study: Municipality of 22nd district of Tehran). *Human Resources Management and Services*. 2023 Aug 10;5(1).