

# The Impacts of Human Resource Management Practices on Company Labor Productivity: Empirical Evidence from Iron and Steel Company in Libya

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## Abstract

This paper investigates the relationship between human resource management practices and labor productivity for the iron and steel Libyan company. This paper operationally defined human resource practices as recruitment and selection, training and development, performance appraisal, communication, compensation, teamwork and employment security. Also, productivity measured as labor productivity. The data was collected using the questionnaire that consists of questions with 5-points Likert scales distributed to our samples of 386 employees. By using a stepwise multiple regression analysis, it is found that, all practices had strong positive correlate and effect on each of labor productivity.

**Keywords:** Human Resource Management Practices (HRMP); Labor Productivity (LP); Recruitment and Selection (R&S); Training and development (T&D); Performance Appraisal (PA); Communication (COM); Compensation (COMP); Teamwork (TW) and Employment Security (ES).

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## **1. Introduction**

In recent years all developed and developing countries confirm on productivity importance as one of the requirements of economic development and obtaining competitive benefit in international fields, because in the present world competition has different aspects in global arenas and attempting to achieve maximum level of productivity is one of the main bases of these competitions. So many developing countries investing dramatically in this way for dissemination of productivity strategy and applying techniques and methods for improving it.

Productivity is an overall measure of the ability to produce a good or service. More specifically, productivity is the measure of how specified resources are managed to accomplish timely objectives as stated in terms of quantity and quality. Productivity may also be defined as an index that measures output (goods and services) relative to the input (labor, materials, energy, etc., used to produce the output) [1].

The main reason for the failure of the organization to get their goals is the lack of the correct perception of productivity. Among production factors, human resources factor is considered as sensible and coordinator of other factors in contrary to organizational resources and its role in increase and decrease of organization productivity caused that this factor prosper a special position in the organization and be viewed as the main lever of improving organization overall productivity [2].

HRM represents the vast workforce in the organization. At the same time, HRM leads the organization to enhance their competitive advantage over its competitors. Every employee is involved widely in the management function and goal accomplishment especially in term of productivity. In addition, they also contribute to the creative work, the production of new and innovative product, renewable or modification of the general administration management, making organizational decisions and thus deal with the problem solving for the transformation of the natural resources into useful and profitable product and the forth [3].

## **2. Literature review**

HRM, generally, is a system of practices and sub-practices that seeks employees' performance improvement in a way that individual, organizational and social goals achieved. HRM practices (HRMP) are the activities pursued to fulfill the core tasks of HRM. HRMP have a direct effect on performance, its impacts positively on organizational outcomes and promote competitive capacity of organization. HRMP create procedures that institutionalize the building of employees' knowledge, skills, and abilities throughout the organization to promote valued, unique, and difficult to imitate organizational competencies which support competitive advantage [4].

The impact of HRMP on employees' skills and abilities are portrayed in recruitment, selection and training. Organization can hire employees through sophisticated selection procedures that created to choose the best potential employees. After selection, employees can be provided comprehensive training and development programs in order to advance their knowledge, skills and ability in performing their works. Secondly, the effectiveness of skilled employees will be restricted, if they are not motivated to do the job. Therefore, to

motivate employees, the company can encourage their employees to work efficiently through the performance appraisal based on individual and group performance, relating these appraisals to compensation systems, the use of internal promotion systems based on employee merit and other types of incentives that support the interest of employees with those of shareholders. Finally, the contribution of skilled and motivated employees is influenced by the way in which a workplace is structured. If jobs are structured, it will limit the way employees perform their job. Hence, HRMP can affect organizational performance and productivity in addition to organizational structure condition that supports employees' participation and encourages them to improve the way they perform their jobs. Among relevant practices in achieving organizational performance and productivity include employees' communication, team-based production systems and employment security [5,6,7].

## **2.1. Human resource management practices**

From the above will be studied HRMP such as recruitment and selection, training and development, performance appraisal, compensation, communication, team work and employment security and their relationship to productivity.

### **2.1.1. Recruitment and selection**

Recruitment is the generation of an applicant pool for a position or job in order to provide the required number of candidates for a subsequent selection or promotion program. Recruitment is done to achieve management goals and objectives for the company. Selection is the choice of job candidates from a previously generated applicant pool in a way that will meet management goals and objectives as well as current legal requirements. Effective recruitment and selection practices identify job applicants with the appropriate level of knowledge, skills, abilities, and other requirements needed for successful performance in a job or an organization [8].

### **2.1.2. Training and development**

Training is defined as organizations' planned and systematic efforts to shape or develop the knowledge, skills, and attitudes of employees through their learning experiences [9]. Training and development effort can further be designed to increase an individual's level of self-awareness, proficiency, skills and motivation to perform his or her job well. Furthermore, training and development are generally considered as a systematic Endeavour by the organization to facilitate the learning of job-related behavior on the part of the employees [10].

### **2.1.3. Performance appraisal**

Performance appraisal is an important management tool to assess employees' efficiency in the workplace, and may be defined, as a structured formal interaction between a subordinate and supervisor that usually takes the form of a periodic interview (annual or semiannual) to evaluate the work performance. Performance appraisal is intended to engage, align, and coalesce individual and group effort to continually improve overall organizational mission accomplishment [11].

### **2.1.4. Compensation**

Compensation as a concept refers to all forms of financial returns and tangible benefits that employee receives as part of employment relationship. Compensation indicates to all forms of pay goes to employees arising from their work. It has two main components: direct financial payments (wages, salaries and incentives, commissions and bonuses) and indirect financial payments (financial benefits like employer-paid insurance and vacations) [12].

#### **2.1.5. Communication**

Communication is concerned with the exchange of information and ideas within an organization while consultation goes beyond this and involves managers actively seeking and then taking account of the views of employees before making a decision [13].

#### **2.1.6. Teamwork**

Teamwork refers to the activities of a group of people toward a shared objective that requires communication, collaboration, and coordination; it is a process that involves interaction between people who share some common interests. Although teamwork is closely related to the concept of a team, the two terms are not interchangeable. Teams are just one of several ways that organizations use to promote interdependence [14].

#### **2.1.7. Employment security**

Employment security usually refers to the rules governing hiring and firing employees. In general, regular employment contracts do not specify the duration of the employment relationship. Employment security regulations for regular contracts typically define conditions for termination of employment. In particular, they set conditions under which it is possible to lay off an employee (fair dismissal) and the sanctions in the case of breach of these provisions (unfair dismissal) [15].

### **2.2. Productivity**

Productivity is an overall measure of the ability to produce a good or service. More specifically, productivity is the measure of how specified resources are managed to accomplish timely objectives as stated in terms of quantity and quality. Productivity may also be defined as an index that measures output (goods and services) relative to the input (labor, materials, energy, etc., used to produce the output) [1].

Productivity is useful as a relative measure of actual output of production compared to the actual input of resources, measured across time or against common entities. As output increases for a level of input, or as the amount of input decreases for a constant level of output, an increase in productivity occurs. Therefore, a "productivity measure" describes how well the resources of an organization are being used to produce input [1].

Productivity is the ratio of outputs (goods and services) divided by inputs (resources, such as labor and capital) the HR manager's job is enhance (improve this ratio of outputs to inputs, improving productivity means improving efficiency [16]. In industrial engineering, productivity is generally defined as the relation of output

(i.e. produced goods) to input (i.e. consumed resources) in the manufacturing transformation process. However, there are numerous variations on this basic ratio which is often too wide, a definition to be useful in practice [17].

Productivity is usually expressed in one of three forms: partial factor productivity, multifactor productivity, and total productivity [18] and [19].

### **2.3. Human resource management practices and productivity**

Neal et al [20] examined whether the relationship between HRMP and productivity in manufacturing companies is contingent upon organizational climate and strategic orientation. They found that organizational climate and competitive strategy are associated with HRM and provide an important empirical verification of the claim that the fit between the HRM system and climate is associated with changes in productivity over time, and HRMP must be designed to enhance the knowledge, skill, ability and motivation of staff will be more effective when there is a positive organizational climate, and the correlation between HRM and productivity is stronger when there is a poor climate.

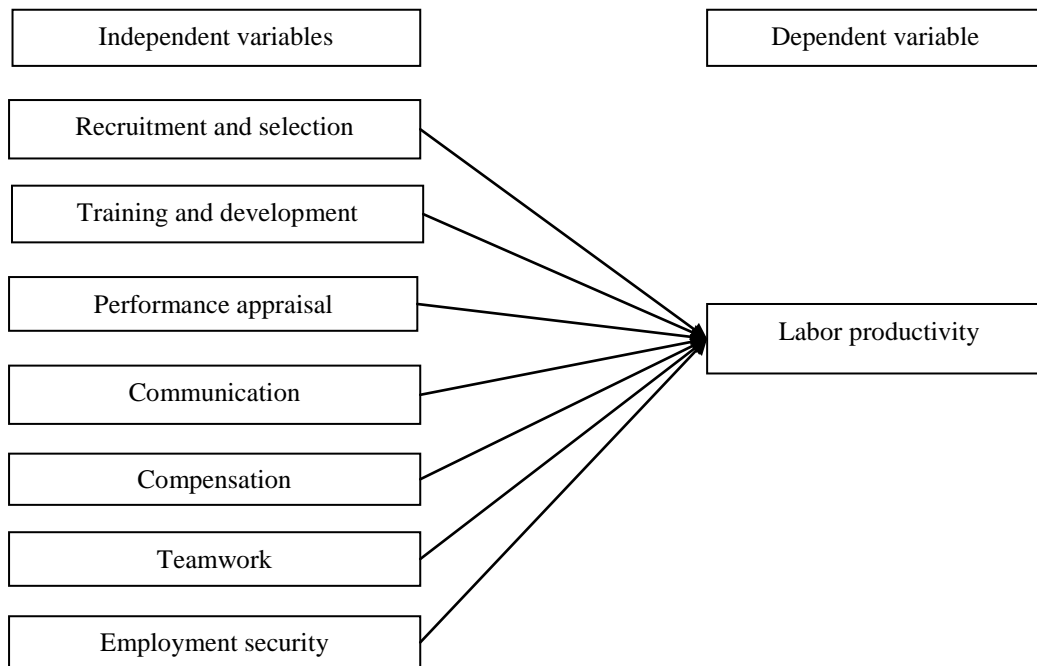
Katou and Budhwar [6] investigated if HRMP have an impact on organizational performance in the Greek manufacturing context. They used a sample of 178 firms. The “universalistic model” of HRM is adopted to conduct the investigation. The results show strong support for the model, indicating that the HRM policies of recruitment, training, promotion, incentives, benefits, involvement, and health and safety are positively related with organizational performance.

Chen and Huang [21] examined the relationship between strategic HRMP and innovation performance from the knowledge based view in a sample of 146 firms. Results of the regression analysis indicated that strategic HRMP including staffing, training, participation; performance appraisal and compensation are positively related to innovative performance. These practices encourage employees to contribute their knowledge and expertise in accomplishing their tasks; thus, increases their productivity.

Lee et al [22] investigated the relationship between HRMP, business strategy and firm performance. They found: HRMP will be positively related to firm performance; there is a close linkage between HRMP and business strategy; business strategies will be positively related to firm performance; integrating HRMP with business strategies will be positively related to firm performance.

### **3. Proposed model**

As a result, the strength of the HRM system is likely to enhance employee attitudes and behavioral patterns, such as work motivation, organizational commitment and skill development, and will thus have a positive effect on organizational performance. The current work a proposed model was focused on seven HRMP (recruitment and selection, training and development, performance appraisal, communication, compensation, teamwork and employment security) as independent variables and (labor productivity) as dependent variable (Figure 1).



**Figure 1:** Proposed model

#### **4. Research methodology**

The first step in the proposed methodology is defining the variables and designing the research tool, then collecting data from participants.

##### **4.1. Research tool**

The research tool used in this work is a questionnaire. The development of the questionnaire began with a brief study of the previous researches and then designs the required questionnaire. The proposed questionnaire was developed based on extensive study of previous studies [23,20,24,25,26,27,28,29]. The questionnaire consists of two sections. The first section includes variables that are related to the demographic characteristics of the study sample. Whereas the second section contains seven independent variables related to HRMP (recruitment and selection, training and development, performance appraisal, compensation, communication, teamwork and employment security) to be measured through 50 statements. The third section includes dependent variables that are related to productivity (labor productivity), to be measured through 3 statements using five points likert scale as shown in Appendix. To assess content validity, these items were presented to a group of Industrial Engineering professors to evaluate the terminology to ensure readability, clarity, and relevance.

##### **4.2. Sample Size and Data collection**

The research population in this study is all individuals working in the Libyan Iron and Steel Company. The researchers had explained the purpose of the study and discussed the process with the some managers and department's heads in this company to distribute copies from the questionnaire to employees. They suggested seven factories in the company, and distribute the questionnaire to 100 employees each.

A total of 482 questionnaires were retrieved out of 700 with 68.86%, and after checking 96 questionnaire were excluded due to lack of suitability for analysis (incomplete data and biased answers). Thus, the number of valid questionnaires for analysis is 386 with 55.14% from the sample and 80.08% from the received questionnaires.

## 5. Results and dissections

The data were analyzed by statistical program (SPSS - V.20), using reliability test, descriptive statistical method (means and standard deviation) for the interpretation of statistical indicators for the opinions of the participants and stepwise multiple regression analysis.

### 5.1. Reliability

Table 1, illustrates that the reliability coefficient of the various dimensions largest than (0.7). The table also indicated that the greatest value of the reliability coefficient was (0.783) related to labor productivity and the smaller the value of reliability coefficient (0.701) related to teamwork.

**Table 1:** Cronbach's alpha ( $\alpha$ )

| HRM practices                   | N of items | Cronbach's alpha |
|---------------------------------|------------|------------------|
| Recruitment and selection (R&S) | 8          | 0.754            |
| Training and development (T&D)  | 8          | 0.707            |
| Performance appraisal (PA)      | 6          | 0.714            |
| Communication (COM)             | 8          | 0.745            |
| Compensation (COMP)             | 8          | 0.716            |
| Teamwork (TW)                   | 6          | 0.701            |
| Employment security (ES)        | 6          | 0.739            |
| Labor productivity (LP)         | 3          | 0.783            |

### 5.2. Descriptive analysis and correlation

Table 2, presents descriptive statistics and correlations among all the research variables. In this analysis, we ascertained the direct relationship among all variables. This pair analysis provides a direct picture of the relationship between each of separate HRM practice and labor productivity, as well as the relationship between various HRMP. This then gives a better understanding about the possible fit among those practices.

### 5.3. Model summary for labor productivity and HRMP

The model (7) has  $R = 0.818$  its high correlation between LP and predictors included in model (PA, COMP, ES, T&D, R&S, COM, TW).  $R^2 = 0.669$ , which meaning that all predictors accounts 66.9% of variation in LP (Table 3.).

**Table 2:** Descriptive analysis and correlation

| Variable | Mean  | S.D   | Correlation |         |         |         |         |         |         |    |
|----------|-------|-------|-------------|---------|---------|---------|---------|---------|---------|----|
|          |       |       | LP          | R&S     | T&D     | PA      | COM     | COMP    | TW      | ES |
| LP       | 3.478 | 0.878 | 1           |         |         |         |         |         |         |    |
| R&S      | 3.336 | 0.665 | 0.649**     | 1       |         |         |         |         |         |    |
| T&D      | 3,625 | 0.624 | 0.638**     | 0.605** | 1       |         |         |         |         |    |
| PA       | 3.256 | 0.703 | 0.729**     | 0.664** | 0.599** | 1       |         |         |         |    |
| COM      | 3.285 | 0.744 | 0.663**     | 0.492** | 0.493** | 0.727** | 1       |         |         |    |
| COMP     | 3.398 | 0.640 | 0.672**     | 0.533** | 0.563** | 0.694** | 0.648** | 1       |         |    |
| TW       | 3.415 | 0.596 | 0.603**     | 0.507** | 0.443** | 0.568** | 0.588** | 0.558** | 1       |    |
| ES       | 3.402 | 0.550 | 0.546**     | 0.428** | 0.322** | 0.507** | 0.529** | 0.497** | 0.614** | 1  |

\*\* . Correlation is significant at the 0.01 level (1-tailed), N = 386

The dependent variable (labor productivity) was found to be related significantly to R&S ( $r = 0.585$ ), T&D ( $r = 0.579$ ), PA ( $r = 0.687$ ), COM ( $r = 0.616$ ), COMP ( $r = 0.629$ ), TW ( $r = 0.575$ ) and ES ( $r = 0.528$ ). Here it is obvious that the maximum correlation is existed between PA and LP, followed by the association between COMP and LP, COM; T&D; TW; R&S; ES respectively correlated with LP.

**Table 3:** Model summary for LP and HRMP

| Model | R     | R <sup>2</sup> | Adjusted R <sup>2</sup> | Std. Error of the Estimate | Change Statistics     |          |     |     |               |
|-------|-------|----------------|-------------------------|----------------------------|-----------------------|----------|-----|-----|---------------|
|       |       |                |                         |                            | R <sup>2</sup> Change | F Change | df1 | df2 | Sig. F Change |
| 7     | .818g | .669           | .663                    | .510                       | .004                  | 4.139    | 1   | 378 | .043          |

g. Predictors: (Constant), PA, COMP, ES, T&D, R&S, COM, TW

The remaining 33.1 % is not explained which means that the rest 33.1 % of the variation of LP is related to other variables which are not depicted in the model. Adjusted  $R^2 = 0.663$ ,  $R^2$  change = 0.004, its difference between  $R^2$  and Adjusted  $R^2$ , its meaning that if the model were derived from the population rather than a sample it would account for approximately 0.4% less variance in the LP. F change = 4.139, it was significantly = 0.043 at 0.05 level.

**5.4. ANOVA test for labor productivity and HRMP**

Table 4, shows the model (7) was statistically significant  $F(7, 378) = 109.115$ ,  $p = 0.000$ , this model significantly improves our ability to predict the labor productivity at 0.05 level. Also, indicates that the model explains the most possible combination of predictor variables that could contribute to the relationship with the labor productivity.



**Table 4:** ANOVA for LP and HRMP

| Model                                                                                  |            | Sum of Squares | df  | Mean Square | F       | Sig.              |
|----------------------------------------------------------------------------------------|------------|----------------|-----|-------------|---------|-------------------|
| 7                                                                                      | Regression | 198.556        | 7   | 28.365      | 109.115 | .000 <sup>h</sup> |
|                                                                                        | Residual   | 98.264         | 378 | .260        |         |                   |
|                                                                                        | Total      | 296.819        | 385 |             |         |                   |
| a. Dependent Variable: Labor productivity                                              |            |                |     |             |         |                   |
| h. Predictors: (Constant), PA(LP), COMP(LP), ES(LP), T&D(LP), R&S(LP), COM(LP), TW(LP) |            |                |     |             |         |                   |

**5.5. Model parameters labor productivity and HRMP**

Table 5, shows that the B values were: PA (B = 0.294), COMP (B = 0.246), ES (B = 0.287), T&D (B = 0.295), R&S (B = 0.166), COM (B = 0.108) and TW (B = 0.122). then there is positive relationship between LP and HRMP.

The t-test associated with a B values for this model, PA (t = 5.170, p = 0.000), COMP (t = 4.461, p = 0.000), ES, (t = 4.877, p = 0.000), T&D (t = 5.668, p = 0.000), R&S (t = 3.277, p = 0.001), COM (t = 2.143, p = 0.033), TW (t = 2.035, p = 0.043), were significant predictors at level 0.05.

**Table 5:** Model parameters for LP and HRMP

| Model                                     |            | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. | Collinearity Statistics |       |
|-------------------------------------------|------------|-----------------------------|------------|---------------------------|--------|------|-------------------------|-------|
|                                           |            | B                           | Std. Error | Beta                      |        |      | Tolerance               | VIF   |
| 7                                         | (Constant) | -1.690                      | .208       |                           | -8.106 | .000 |                         |       |
|                                           | PA(LP)     | .294                        | .057       | .236                      | 5.170  | .000 | .422                    | 2.371 |
|                                           | COMP(LP)   | .246                        | .055       | .179                      | 4.461  | .000 | .542                    | 1.845 |
|                                           | ES(LP)     | .287                        | .059       | .180                      | 4.877  | .000 | .642                    | 1.559 |
|                                           | T&D(LP)    | .295                        | .052       | .240                      | 5.668  | .000 | .638                    | 1.567 |
|                                           | R&S(LP)    | .166                        | .051       | .126                      | 3.227  | .001 | .579                    | 1.727 |
|                                           | COM(LP)    | .108                        | .051       | .092                      | 2.143  | .033 | .477                    | 2.098 |
|                                           | TW(LP)     | .122                        | .060       | .083                      | 2.035  | .043 | .528                    | 1.893 |
| a. Dependent Variable: Labor productivity |            |                             |            |                           |        |      |                         |       |

The Standardized beta values were: PA ( $\beta = 0.236$ ), COMP ( $\beta = 0.179$ ), ES ( $\beta = 0.180$ ), T&D ( $\beta = 0.240$ ), R&S

( $\beta = 0.126$ ), COM ( $\beta = 0.092$ ) and TW ( $\beta = 0.083$ ). These values indicate that T&D has largest importance than other practices in the model, followed by PA, ES, COMP, R&S, COM and TW respectively. Tolerance values of all predictors are bigger than 0.20, VIF values of predictors are less than 5.

## 6. Conclusions

The results evidently assert that R&S, T&D, PA, COM, COMP, TW, and ES have a direct and positive impact on company productivity. This utters the fact the enhancement and serious considerations of the above mentioned determinants of HRMP are the bases the enhancement and enrichment of company productivity in general and in iron and steel Libyan company in specific. The results illustrated the following points:

- The value of  $R^2$  of the LP and HRMP model in which the impact of PA, COMP, ES, T&D, R&S, COM and TW analyzed on the LP is 0.669 which shows the model of fitness is appropriate and significant.
- R&S has significant positive correlation with LP ( $r = 0.585$ ,  $p = 0.000$ ). R&S has significant positive coefficient with LP ( $B = 0.166$ ). This can be interpreted that the increase of 1 unit of R&S may incur the raise of 0.166 units in LP. Also, there is not existed collinearity problem between R&S and other practices.
- T&D has significant positive correlation with LP ( $r = 0.579$ ,  $p = 0.000$ ). T&D has significant positive coefficient with LP ( $B = 0.295$ ). This can be interpreted that the increase of 1 unit of T&D may incur the raise of 0.295 units in LP. Also, T&D has largest impact on LP ( $\beta = 0.210$ ,  $t = 5.668$ ,  $p = 0.000$ ) than other practices.
- PA has significant positive correlation with LP ( $r = 0.687$ ,  $p = 0.000$ ). PA has significant positive coefficient with LP ( $B = 0.294$ ). This can be interpreted that the increase of 1 unit of PA may incur the raise of 0.294 units in LP. Also, there is not existed collinearity issue between PA and other practices.
- COM has strong significant positive correlation with LP ( $r = 0.616$ ,  $p = 0.000$ ). COM has significant positive coefficient with LP ( $B = 0.108$ ). This can be interpreted that the increase of 1 unit of COM may incur the raise of 0.108 units in LP. Also, there is not existed collinearity problem between COM and other practices.
- COMP has strong significant positive correlation with LP ( $r = 0.629$ ,  $p = 0.000$ ). COMP has significant positive coefficient with LP ( $B = 0.246$ ). This can be interpreted that the increase of 1 unit of COMP may incur the raise of 0.296 units in LP. Also, there is not existed collinearity problem between COMP and other practices.
- TW has significant positive correlation with LP ( $r = 0.575$ ,  $p = 0.000$ ). TW has significant positive coefficient with LP ( $B = 0.259$ ). This can be interpreted that the increase of 1 unit of TW may incur the raise of 0.259 units in LP. Also, there is not existed collinearity problem between COMP and other practices.
- Finally, ES has strong significant positive correlation with LP ( $r = 0.528$ ,  $p = 0.000$ ). ES has significant positive coefficient with LP ( $B = 0.287$ ). This can be interpreted that the increase of 1 unit of ES may incur the raise of 0.287 units in LP. Also, there is not collinearity issue between ES and other practices.

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**Appendix A**

**(Research Tool)**

|                   |          |         |       |                |
|-------------------|----------|---------|-------|----------------|
| Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
| 1                 | 2        | 3       | 4     | 5              |

|    | DATA                                                                                                                                                                                                                                 | 1 | 2 | 3 | 4 | 5 |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|---|---|
| 1  | The company is attracting qualified academically and professionally and according to their needs and requirements.                                                                                                                   |   |   |   |   |   |
| 2  | The company is testing job applicants, such as (Testing skill, proficiency tests and tests of educational and professional level) before the recruitment process.                                                                    |   |   |   |   |   |
| 3  | The recruitment process in this company based on manual and physical skills, technical skills and problem solving skills.                                                                                                            |   |   |   |   |   |
| 4  | The company employs people in jobs that are compatible with their skills and abilities.                                                                                                                                              |   |   |   |   |   |
| 5  | The company prefers to promote internally (as opposed to external) when filling vacant position.                                                                                                                                     |   |   |   |   |   |
| 6  | The company collects information about a person's real ability to contribute to increase the company productivity prior to the recruitment process.                                                                                  |   |   |   |   |   |
| 7  | Selection tests in company to identify candidates with desirable characteristics (such as talent and education) and avoid of candidates with undesirable characteristics (such as drug abuse).                                       |   |   |   |   |   |
| 8  | The company's extensive selection procedure used to hire new workers; including tests for personality traits needed for improve productivity and efforts to set clear expectations about required work behaviors of the new workers. |   |   |   |   |   |
| 9  | The company use formal training programs to teach new employees the skills they need to perform their job.                                                                                                                           |   |   |   |   |   |
| 10 | The company provides extensive training programs for employees.                                                                                                                                                                      |   |   |   |   |   |
| 11 | The company provides formal training to enhance the skills of new employees as well as to enhance the existing employees.                                                                                                            |   |   |   |   |   |
| 12 | The company is reviewing and updating training programs based on the Technological progress.                                                                                                                                         |   |   |   |   |   |
| 13 | The company provides training opportunities for employees to improve their job skills and abilities.                                                                                                                                 |   |   |   |   |   |
| 14 | The company provides training opportunities to improve general skills (such as problem solving and communication skills)                                                                                                             |   |   |   |   |   |
| 15 | Off job training helps to increase the skills and abilities.                                                                                                                                                                         |   |   |   |   |   |
| 16 | Increase staff efficiency and improve their performance after attending the training                                                                                                                                                 |   |   |   |   |   |

|    |                                                                                                                                                 |  |  |  |  |  |  |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|
|    | required for them.                                                                                                                              |  |  |  |  |  |  |
| 17 | Performance appraisal in the company based on an objective assessment of performance results.                                                   |  |  |  |  |  |  |
| 18 | The company adopts performance appraisals to plan skill development and training for future advancement.                                        |  |  |  |  |  |  |
| 19 | The company requested the information from the employees, in assessing the performance of employees                                             |  |  |  |  |  |  |
| 20 | The company depends on the results of performance appraisal for the distribution of bonuses and promotions.                                     |  |  |  |  |  |  |
| 21 | The company gives employees adequate formal feedback on their performance and how they can improve it.                                          |  |  |  |  |  |  |
| 22 | Supervisors in company frequently discuss performance with employees about production process.                                                  |  |  |  |  |  |  |
| 23 | The company communicates with employees to benefit from their ideas.                                                                            |  |  |  |  |  |  |
| 24 | The company allows employees to make decisions.                                                                                                 |  |  |  |  |  |  |
| 25 | Employees are often asked by their supervisors to participate in decisions.                                                                     |  |  |  |  |  |  |
| 26 | Supervisors keep open communication with employees in company.                                                                                  |  |  |  |  |  |  |
| 27 | The company goals and objectives are clear to employees.                                                                                        |  |  |  |  |  |  |
| 28 | The company sharing information about how is improve labors productivity with employees.                                                        |  |  |  |  |  |  |
| 29 | Employees have enough information to do their job well.                                                                                         |  |  |  |  |  |  |
| 30 | The company provides operational performance information on the production process for the employees (for example, quality, productivity, etc.) |  |  |  |  |  |  |
| 31 | The company is linking compensation system with the level of knowledge and skills acquired by employees.                                        |  |  |  |  |  |  |
| 32 | The company has a very fair compensation systems, aims to reward people who achievement their goals.                                            |  |  |  |  |  |  |
| 33 | Supervisors significantly influence to the moral motivation process for employees.                                                              |  |  |  |  |  |  |
| 34 | The company uses a system of monthly wages consistent with the contemporary life.                                                               |  |  |  |  |  |  |
| 35 | Pay decisions make for employees in this company are based primarily on a seniority-based system.                                               |  |  |  |  |  |  |
| 36 | Employees have the opportunity to earn individual bonuses for productivity, performance or other individual outcomes.                           |  |  |  |  |  |  |
| 37 | Pay incentives such as bonus is an important part of the compensation strategy in this company.                                                 |  |  |  |  |  |  |
| 38 | Employees prefer over time work to increase their wages.                                                                                        |  |  |  |  |  |  |
| 39 | The company takes into account the opinions and thoughts team work before making decisions.                                                     |  |  |  |  |  |  |

|    |                                                                                                                       |  |  |  |  |  |
|----|-----------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|
| 40 | The company focuses on team work to solve problems.                                                                   |  |  |  |  |  |
| 41 | The company provides to the team work the Authority and sufficient resources, to solve problems.                      |  |  |  |  |  |
| 42 | The development of teams is an important element of the Company's strategy.                                           |  |  |  |  |  |
| 43 | Employees work in semi-autonomous groups (i.e. groups with a high level of responsibility).                           |  |  |  |  |  |
| 44 | Employees sometimes work in problem-solving teams                                                                     |  |  |  |  |  |
| 45 | Employees in the company have the possibility to stay in work as long as they want it.                                |  |  |  |  |  |
| 46 | If the employee does not feel comfortable with his job or team work, the company employed him elsewhere by his desire |  |  |  |  |  |
| 47 | Employees are reassured for their future career in the company.                                                       |  |  |  |  |  |
| 48 | Providing employment security to employees is a priority in the company.                                              |  |  |  |  |  |
| 49 | When employees sense to stay to work the company that increases their productivity.                                   |  |  |  |  |  |
| 50 | The company is committed to the survival of the employees in their work as long as they do well.                      |  |  |  |  |  |

|   | <b>LABOR PRODUCTIVITY</b>                                                                                                                                                                                                       | 1 | 2 | 3 | 4 | 5 |
|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|---|---|
| 1 | The company provides good working conditions in terms of occupational safety, good lighting and proper ventilation, and works to reduce excessive noise.                                                                        |   |   |   |   |   |
| 2 | The company has the ability to benefit from the capabilities and skills of the staff to improve the products and the workplace.                                                                                                 |   |   |   |   |   |
| 3 | The organizational structure of the company places the employees with appropriate capacities and technical qualifications in their places to provide their abilities. In this regard is to make the staff aware of their roles. |   |   |   |   |   |