

Evaluating the Steps of Building the Organizational Structure by Supply Chain Performance measurement and productivity: A Case of the General Directorate of Vocational Education

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Abstract- Proper supply chain performance plays a crucial role in the success of the organization. Therefore, it is essential to use an appropriate supply chain performance assessment system to continuously improve it. The purpose of this research is to analyze supply chain performance according to the operational reference model of supply chain. Organizational structure is one of the fundamental issues and important themes for organizational business as technological developments, increased competition and continuous change are the rudiments of the contemporary business environment. Several questions from the expression of the problem of research provoked the necessity of the study. To identify the reality of the organizational structure in the Directorate General of Vocational Education and the steps needed to be followed are the objectives of this study. The population of the study is selected from a group of departmental managers and various administrative levels of the divisions in the organization are surveyed. The main tool for data collection is questionnaire while only 31 responses are realized from the distribution. A set of statistical methods were used to analyse answers in order to reach final results of the study. The study concluded that effective communication plays an important role between the various administrative levels for the purpose of achieving the objective of the organization. Similarly, the study expresses the importance of preparing detailed lists and clear tasks of the work of the Directorate. The task can be performed efficiently due to possession of human resources with high

efficiency and appropriate expertise by the directorate. Lastly, a number of recommendations based on the results of the study are presented to the organizations. The study equally outlined the purpose to involve employees at various administrative levels in the executive levels of the goal setting process and the importance of establishing clear organizational relationship between employees at different administrative levels (Unit, Division and Department).

Keywords: Organizational Structure, Supply Chain Performance, productivity, Directorate General for Vocational Education

1. Introduction

Taking strategic decisions in supply chain management is a framework that needs a framework to meet industry standards. If the model is not appropriate in this regard, supply chain management cannot provide appropriate factors for the proper assessment of its activities. To this end, organizations should consider a model for solving their day-to-day problems, which can, with that in mind, be the most effective in content analysis with least conflict. Therefore, to assess the supply chain performance, research is needed to identify the important dimensions for the operational efficiency of supply chains in areas such as employee skills development, responsiveness to the market, the introduction of new products, flexibility and customer satisfaction, their evaluation. In today's highly competitive world, the organizational success depends on its ability to keep up with the constant changes in the environment where it operates.

Organizations are then required to have accumulated expertise, capabilities, resources and skills to sustain the changes in the external and internal environment. The best performance in an organization is achieved through an organizational structure due to its positive effect on the coordination of activities and tasks between various units and department of the organization. This is positively reflected in achieving the aim and objectives and providing success and stability to the organization.

This study is accordingly divided into four parts. The first part focuses on the research methodology; the second part focuses on the literature review of the study; the third part focuses on the practical implementation and the last parts focuses on conclusion.

2. Literature Review

2.1. Organizational Chart

According to [1], organizational structure is the official mechanism which is managed by an organization by making a clear view of the lines of communication and authority between the subordinate and the superior. The structure determines how the tasks within an organization should be distributed; what patterns of interactions and coordination mechanisms are required and who is accountable to follow them [2].

In other word, [3] defined organizational structure as how individual coordinate, divide and organize tasks and activities within the organization. It is further explained as the formal arrangement between groups and set of individuals on the distribution of tasks and powers and responsibilities in an organization. Additionally, organizational structure is a structural form that determines the internal structure of the relationships in the organization. The main or subsidiary divisions are clarified by the structure as they execute various activities that are required to achieve the objectives of the organization. This is in addition to specifying the types and forms of existing networks of relations and communication. In [4] added that it is one of the administrative means used to achieve organizational

objectives and primary purpose of building an organization.

There is tendency from many organizations to decentralize decision-making and shed management layers. It shows that there is allowance for front-line workers as there is a strong shift towards more horizontal structures in getting power to solve problems on their own and make decisions [5].

The framework or structure of any organization is represented by the organizational structure of the organization which defines the internal structure of the organization. It depicts the sub-units, organization and division that perform various activities and actions needed to achieve the organizational objectives. Also, it is a reflection of the relationship quality between various departments, lines of authority and responsibilities; it indicates the way to identifying the flow of information and communication networks between different administrative levels in an organization [6]. Therefore, it can be concluded that organizational structure is an expression of the distribution and division of powers between individuals in accordance with its competence in a way that improve the achievement and decision-making of the organizational objective.

2.2. Organization Structure

In this study, several classifications, types and patterns of organizational structures according to scientists' management will be addressed as follow:

- i. The executive structure by the [1]: the management of modern armies generates this kind of structure where decisions and orders are given from highest authority to the lowest authority. The structure is gradually characterized by simplicity and the authority goes straight from the top to the bottom; depending on the order and obedience, the responsibility is determined. However, their shortcoming lies in the negligence of specialization, giving excessive power to the heads of administrators and spearheading the responsibilities of the senior managers beyond the capacity. Cooperation and coordination cannot be achieved between different departments as shown in figure 1.

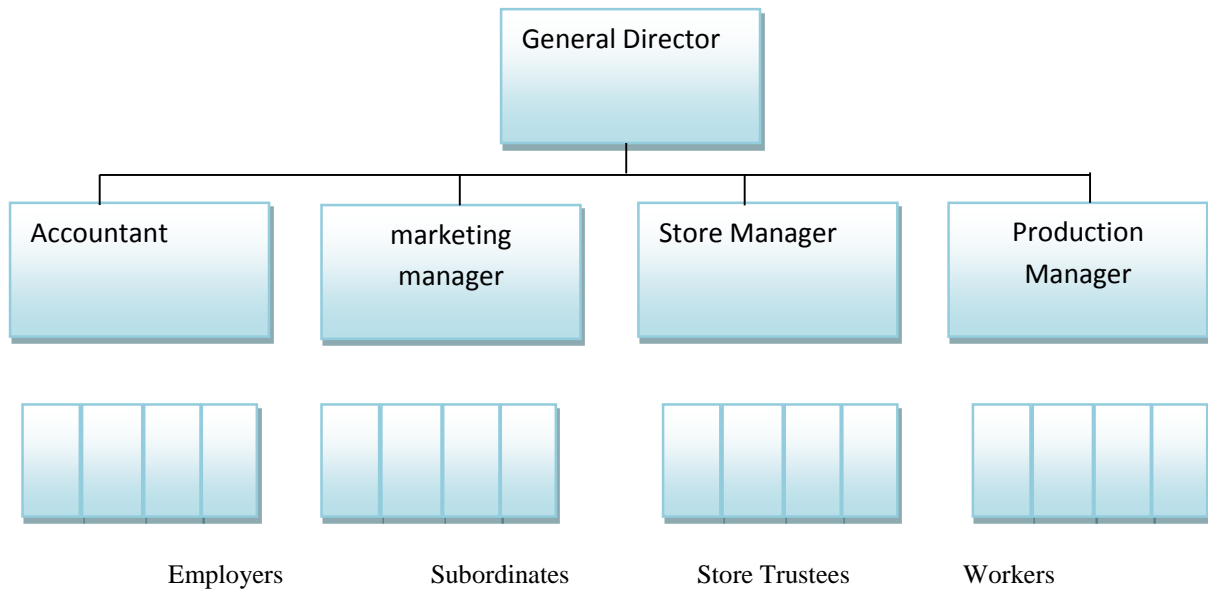


Figure (1): Map of the executive structure

ii. **Functional Structure** by [7]: This structure is established in accordance with the division of labor and functional specialization in the various organizational departments. The structure helps in the development of each job and in the exchange of knowledge information. It also supports the employees in any field as characterized by the high centralization in case of any additional issue due to

centrality of every activity as controlled by the president. In addition, the inter-departmental communication is very difficult and there is no cooperation, environmental change or flexibility. The structure makes the president always busy as it fits in with medium-sized organizations and the desire for change and creativity deprived from him. Figure 2 below explain this type.

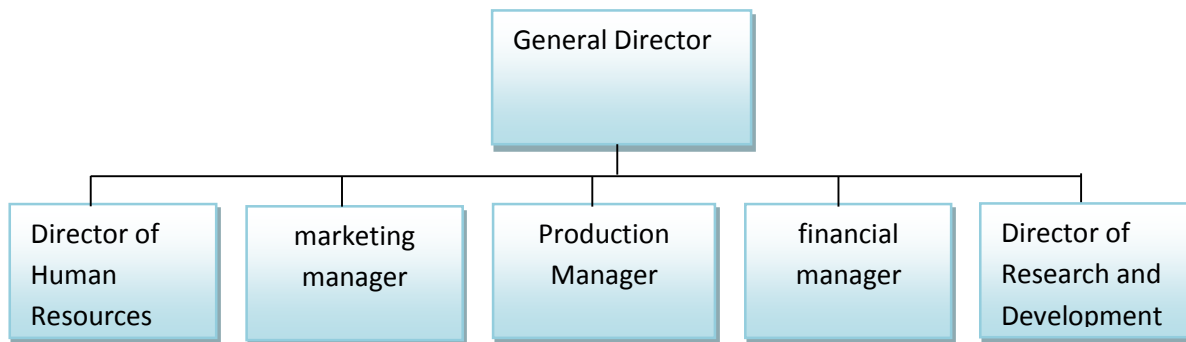


Figure (2): Functional Structure Map

iii. **Advisory Structure** by [8]: this type of structure integrates the advantages of the functional executive by benefiting from the specialization, the unified authority and providing the integrity of the responsibility. It makes use of group of technicians and experts to support the president and its advantage. Every decision taken increases the number of managerial heads with administrative authority and expertise with specific authority, power of the chiefs with technical assistants and specialization. The disadvantage of this structure is

the generation of conflicts in the organization due to misunderstanding between the technician and the managers who give guidance and advice. The conflicts leads to the tendency of professionals to exercise executive power, therefore leading to the difficulty of determining the scope, overlapping power, extent of authority in the use of the expertise of professional consultants by executives and the disruption of the follow-up. Figure 3 below explain this type.

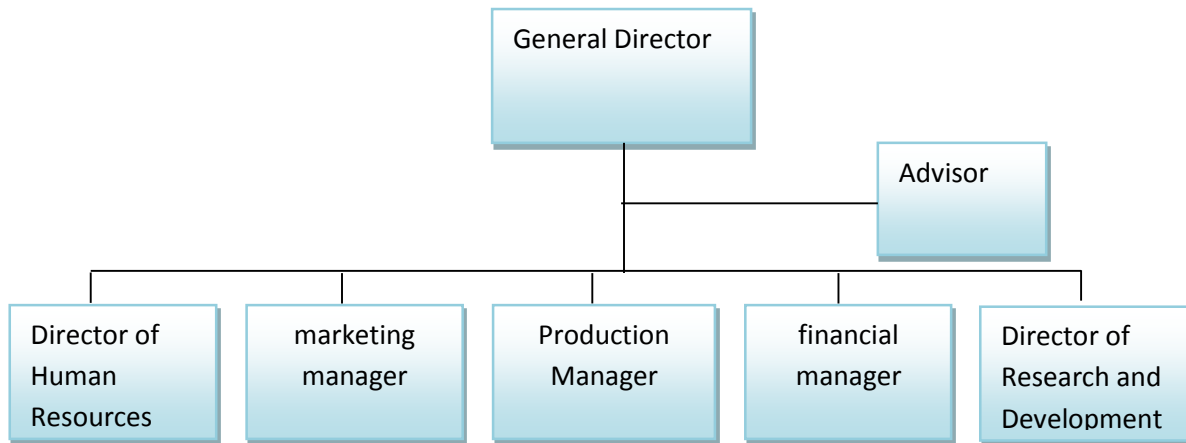


Figure (3): Advisory Structure Map

iv. Divisional Structure by [9]: Diversified product lines of industry engage in this type of structure. The organization is sub-divided into units, thus making the divisions become multiple in terms of operations, services, geographical areas and products. This is arranged between the units through the higher job position and head office. Every single manager in each department expresses its request and problem to the employees, followed by

formulation and implementation of strategies with the assistance of the general manager. The general manager is distinctive in terms of service outputs for each department or unit, the accuracy of production and division of labor. However, it is challenging to have decentralization, coordination, communication and cooperation between the departments due to limitation as revealed in the table below.

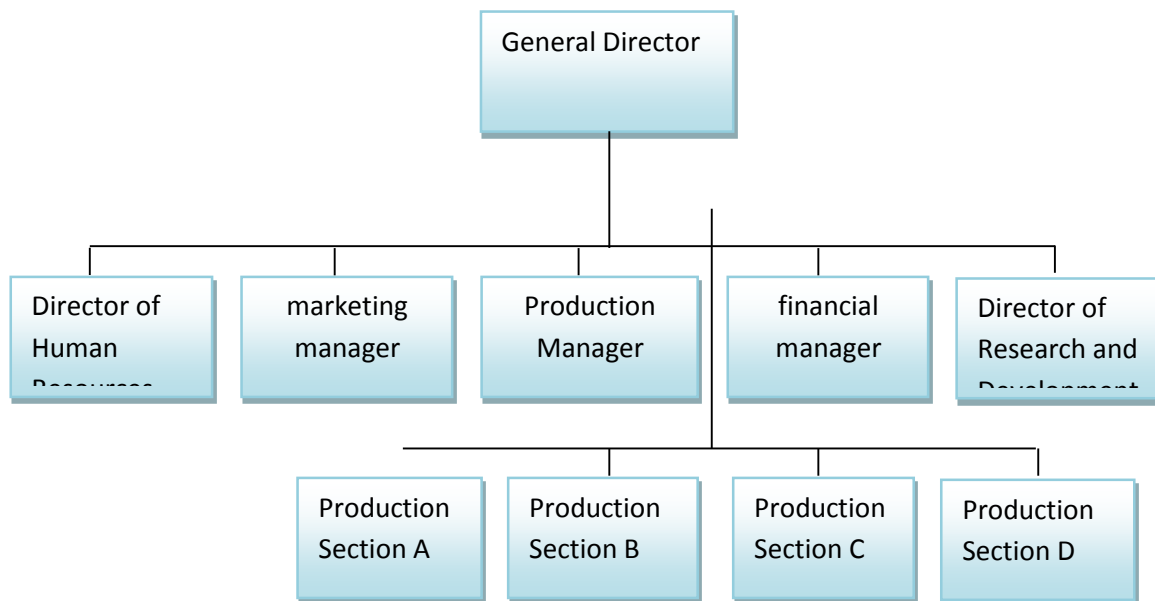


Figure (4): The partition structure map

Due to close association with the organizational structure, tasks are needed to be addressed. According to [9], the tasks refer to the methods used to design jobs in the organization. In the same vein, the tasks and authorities assigned to the individual also experienced the extension of the change. In [10]

added that activities and tasks are always redesigned.

[11] stated that on the basis of task forces to empower decision-making teams and improve labor management, that activities and tasks are always redesigned. The major tasks of today's modern

Human Resources Management can be classified into seven groups:

- i. Creation of workforce: this comprises strategic planning on employment such as: recruitment, selection and appointment of employees followed by the career track management.
- ii. Development of the functional structure: this is achieved through the design of employment and benefits from the skill of employees.
- iii. Development of employees: trainings are initiated within and outside the organization for the development and diversification of the staff's skill.
- iv. Employee motivation: this management is achieved by studying what motivates the workers like increasing the payment of wages, providing a good incentive system and appropriate compensation without leaving behind the use of appropriate sanctions against any negative action.
- v. Workforce Maintenance: maintenance can be done through occupational safety programme, personnel and professional counselling, medical and psychological services and health care.
- vi. Employees progress follow-up: following-up career and retirement plans through the evaluation of performance.
- vii. Research on Human resources: this is connected with the information, systems and analysis on human resources for the current and future position, the factors of satisfaction and productivity and the rates of absence and turnover of work.

2.3.Factors affecting the Design of the Organizational Structure

In [1] stated that the selection and design of the organizational structure is influenced by a set of factors:

- i. The size of the organization: dividing and identifying activities is always difficult for small organizations unlike the large organizations.
- ii. The organization's life cycle: creation is the beginning of the life cycle of any organization. When it reaches the growth period, it continues to mature and finally reach the regression period. This requires reorganization in order to prevent its disappearance.
- iii. The organization's geographical location: Through several geographical locations, the organization performs many activities; the organization requires different structure from operating in another geographical area. The

challenge of coordination and supervision between different levels in the organizational structure increase in the first case.

- iv. Degree of Specialization: The organizational structure of the organization is affected by the degree of specialization in the tasks and activities. The structure becomes simple and vice versa when the degree of specialization in the work is low.
- v. Human Capabilities: The organizational structure becomes simple when the human capabilities required are simple and uncomplicated in terms of specialization, experience and skills. Contrarily, it leads to complexity and multiple organizational structures, if the nature of the work requires skills and experience.
- vi. Technology: the more complex the organizational structure, the more complex the technology used in the organization.
- vii. Scope of Supervision: this is the number of subordinates supervised by the manager effectively. There is a small organizational structure with limited administrative levels if the scope of supervision is wide but longitudinal administrative multi-level organizational structures are acquired with a narrow scope of supervision.
- viii. Centralization and Decentralization: Centralization means the senior management takes fully control of every decision-making while the degree of delegation of decision-making authority to the lowest level is called the decentralization. The design of the organizational structure is affected by the extent of decentralization.
- ix. External Environment: the organizational structure is affected by the degree of stability and instability. Similarly, if the external environment is stable and more complex, the structure becomes simple.

2.4.Steps to Build the Organizational Structure

According to [12], the following stages are the process of preparing organizational structures:

- i. Identification of the main activities and objectives of the organization
- ii. Identification of the auxiliary sub-activities
- iii. Assigning activities and assistance into different position
- iv. Distribution and compilation of integrated and homogenous functions in organizations

- v. Determination of the relative importance of organizational units through the organisational structure.

How to build the organizational structure was highlighted by [13, 14] highlighted the following steps that must be taken:

Step 1: Define the objectives and number of functions (activities) of the Directorate required to achieve this goal.

Step 2: Preparation of the detailed list of the activities required to achieve the objectives of the Directorate.

Step 3: the third step deals with integrating similar activities together and positioning them in the administrative department.

The most important of these foundations from all the multiple bases for the collection of activities (the composition of departments):

- i. Division (assembly) by function
- ii. Division (assembly) by product
- iii. Division (aggregation) by customer.
- iv. Division (aggregation) by geographic region
- v. Division (assembly) by stage of production

Step 4: After the formation of administrative units, then identification of organizational relationships. These units must be connected to each other by identifying the appropriate relationships between workers at different levels of the administration. The basic concepts of the organizational relationships are: power, responsibility, delegation, centralization and decentralization, scope of supervision and committees.

Step 5: determination of the link between the administrative units after establishing the administrative units in the organization such as in the management: human resource management; production management; finance management; coordination management and marketing management must all be done. In order to allow free exchange of data and information, the creation of an official network of communications must be created between them.

Step 6: development and selection of the human elements in order to implement the tasks of the administrative units immediately after completion. In this step, the process of selecting individuals to fill existing positions begins in the organizational

structure. The principle of "putting the right man in the right place" started with making choice based on principles.

Step 7: mapping out and drawing a map in the form of organizational chart. The scope of the supervision per person, the dependency and the size of the organizational structure are shown by the organizational chart. Also, the idea of the different positions determines the number of administrative levels. The map can be designed from the left to the right, it may be circular and it can show power lines from top to bottom.

Step 8: Preparation of the organizational guide. The so-called organizational guide is prepared at this stage. The stages comprises a summary in form of booklet containing the name of the organization, its title, objectives, policies and organizational structure with its main and subsidiary procedures and divisions.

Stage 9: this stage permanently and continuously monitors the organizational process and adjustments are appropriately done when needed so that it meets any required variables.

The knowledge of the administration has no difference regarding the organizational structure which contributed to the management simplification and coordination of any organization. Therefore, the steps to build organizational structure must be studied and refined through the existence of the organization in question with the problem of slow work procedures, overlapping powers and some other aspects which are at the heart of the organizational structure. The problem of the study mentioned above can be summarized as follow:

- i. Has the implementation of the organizational structure in the organization been appropriately investigated to the nature of its work?
- ii. Is there proper programme and orientation for the selected organization to change the organizational structure?
- iii. Has organizational structure been developed following the standard steps in the investigated organization?

The importance of subject matter generates the importance of research in question which is one of the burning issues in all organization. This study additionally made an attempt to contribute to the libraries of Iraq and on the other hand support the growth of the country during the economic

circumstances. The challenges of globalization and the openness of the world at different levels have affected the organization to change and inevitably respond to the challenges as the organization derives its success and survival from its ability to adapt to the immediate environment.

The competitive advantage of any organization can be achieved through the focus on the organizational structure and support the organisations to regenerate and adapt to the surrounding environment. In order to integrate the organization effectively and efficiently, the resources and capabilities are moved in the on-going change in the current era of the various aspects and the best method to achieve the objective is chosen.

Another contribution of this study is the support given to the Iraqi organizations with provision of ways to maintain changes and survive by investing the best organizational structure to make outstanding performance and successful changes.

In the development of the Iraqi national industry, the organization is considered an important building block. Intermediate cadres are being supplying to the local Iraqi market with the possession of industrial expertise which contributes to enriching the Iraqi market with varieties of industrial products. The above assertion makes this study worthy of research.

The theoretical and practical aspect of the area related to organizational structure of this research has been studied in order to achieve the following objectives:

- i. To identify the reality of the organization's structure
- ii. To examine the application of the change in organization in order to attend to the organizational structure and respond to it.
- iii. To achieve the outcome of the study and make recommendation and suggestion to the selected organization in order to benefit from the organizational structure and thus achieve quality performance.

3. Methodology

This study employed method of descriptive analysis for the two variables in question through the use of field method and other statistical analysis related to the subject of research.

3.1. Population of the Study

This study sampled the Directorate General of Vocational Education and some affiliated departments in Baghdad, Iraq which have been accredited. The required data are obtained through personal interviews and questionnaire.

The unit of analysis is the senior and middle management working in the organization. The strategy followed in this organization is largely in accordance with the research topic. The employees in the above departments who are the decision makers in this organization will be the unit of analysis. From the thirty one questionnaires distributed to the departmental managers and their divisions were all retrieved. This shows that there was cooperation and high response rate in the completion of the study.

3.2. Data Collection Technique

To reach the final results of this study, different methods of data collection and analysis have been employed:

References from the literatures and scientific sources are employed especially the literatures from the Arab, university papers, letters, periodical papers, foreign books and other related research materials of the same nature. Similarly, internet is used to obtain information that is resourceful as written in the list of the sources.

As shown in Appendix 1, questionnaire was used as the main tool for data collection. The questionnaire followed the Five-Likert Scale style and was used to measure the response scores as follow: Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree with 1, 2,3,4,5 respectively in order to get values of measurable numerical significance through the conversion of the results of the responses of the individuals in the study's sample; thus, each response is relatively important.

4. Result and Analysis

4.1. Reliability of the Questionnaire

The Test of suitability of the Questionnaire: A group of experts and professors as arbitrators were presented the questionnaire after the design of the questionnaire and the formulation of its expressions to make their suggestion on the questionnaire and it

consistency on each section of the questionnaire with the main aim of the study.

Test of content validity: this test represents the level of clarity of each variable and their respective measurements in terms of logical design, concept and formulation through the use of Kronbach equation.

The purpose of the statement of the questionnaire's stability: The stability is measured in order to ensure the repetition power of the questionnaire in the case of reapplying the same method after a long period of time in the same region again. To calculate the stability coefficient, there are two methods that can be used: the first method is to make a retest although this method is uneconomical and expensive; the second method is half-split. This method is simply summarized by determining the correlation coefficient between the scores of the marital questions and the scores of the individual questions in the questionnaire. The Spearman Brown equation is used to correct the correlation coefficient. This shows that the individuals can use the measure with high stability at different times to get the same result.

4.2. Statistical Analysis

The nature of the data requires some statistical measures and SPSS was used to calculate, extract and process the results in order to achieve the statistical tests and the research objectives:

- i. **Percentage:** this is used to give an indication of the level of an agreement and to give an idea on the responses from the respondents.
- ii. **Mean:** this measure is used to evaluate the trends, level of the variables and answers within the given scale of the answers.
- iii. **Standard Deviation:** this shows the rate at which the responses are connected within the arithmetic.
- iv. **Variation Coefficient:** the degree of dispersion is measured with this measurement. The value of the dispersion is calculated as a percentage of the standard deviation divided by the mean. It is measured in percentage (100%). According to certain rules, it determines the most homogeneous variables.
- v. **Cronbach Alpha:** this is used to measure the accuracy of the questionnaire
- vi. **Relative Importance:** this indicates the importance of the variable and the dimensions

The main tool for data collection is the questionnaires distributed to 31 respondents from the selected population. About nine items are presented in each section of the questionnaire on the concept of the organizational structure and the procedures to be taken to create a structure suitable in response to external environment pressures. The effectiveness of each step taken in the process of building the organizational structure is shown in the following section.

The internal consistency (66%) was measured using the Cronbach alpha; the result shows an acceptable level in the scientific research. The following section presents the results.

In the first step, the objectives of the Directorate were determined. The answers of the respondent to the items indicate the level of importance (87.81%) with an average of 3.16, a coefficient of variation of 1.44 and standard deviation of 1.20.

Secondly, for the tasks assigned by the Directorate, details list is prepared in order to achieve its objectives. The answers of the respondent to the items indicate the level of importance (89.01%) with an average of 3.25, a coefficient of variation of 1.99 that is relatively large compared to the other items and standard deviation of 1.41.

Thirdly, one administrative unit contains similar tasks and activities. The answers of the respondent to the items indicate the level of importance (89.12%) with an average of 3.22, a low coefficient of variation of 0.98 and standard deviation of 0.99.

Fourth, identification of the appropriate organizational relations was done among the administrative units. The answers of the respondent to the items indicate the level of significance (89.34%) with an average of 3.16, a low coefficient of variation as compared to other items and standard deviation of 0.89.

Fifth, the higher formations divisions are connected to the administrative units. The answers of the respondent to the items indicate the level of significance (86.83%) with an average of 3.90, a coefficient of variation of 0.89 and standard deviation of 0.94.

Sixth, the appropriate organizational relationship between the employees at the unit, division and department level of the administrative was analysed. The answers of the respondents to the items indicate

the level of significance (87.27%) with an average of 3.77, a coefficient of variation of 1.64 and standard deviation of 1.28.

Seventh, by establishing a formal communication network that allows the exchange of orders and information, the process of communication between the different administrative levels was organized in order to achieve the objectives of the Directorate efficiently and easily. The answers of the respondents to the items indicate the level of significance (90.75%) with an average of 2.74, a coefficient of variation of 1.79 and standard deviation of 1.34.

Eighth, in order to implement the tasks of the administrative units at different levels, competent human factors were chosen. The answers of the respondents to the items indicate the level of significance (91.84%) with an average of 2.41, a coefficient of variation of 1.58 and standard deviation of 1.25.

Ninth, the organizational map was drawn up in the form of a chart. The answers of the respondents to the items indicate the level of significance (88.03%) with an average of 3.54, a coefficient of variation of 1.65 and standard deviation of 1.28.

5. Discussion

This study found that the selected population to analyse agreed mostly on the item seventh and eighth. The results indicate the necessity to provide communication with the provision of human cadres between different administrative levels that have different experiences in the administrative areas. In contrast, the first and fifth items are the least important which shows that the respondents believe in the lack of clarity in the objectives set for the Directorate which generates a weakness in the organizational relationship between the administrative units and the administrative formations. In terms of level of significance and the coefficient of variation and deviation standard, the second, third, fourth, sixth and ninth items are very close in proportion. This indicates the goodness in the procedures within the current organizational structure. There is possibility in adapting with the continuous changes in the work procedures in order to suit with the environmental demand of the surrounding.

6. Conclusion

After the analysis of the questionnaire, the findings of this study reached a set of conclusion as follow:

- i. Effective communication plays a significant role between the different administrative levels on the possibility of achieving the goals of the organization.
- ii. Preparing detailed lists and clear tasks of the Directorate are very important in the organizational chart.
- iii. The directorate is qualified to perform the tasks with high efficiency as it possesses human elements with high efficiency and appropriate expertise.
- iv. Additionally, the fifth item from the result shows that it has the highest mean of 3.90 and this indicates that the institution in particular in related to higher administrative configurations in both divisions and sections.

Recommendation

With the above assertions on the conclusion derived from the results and analysis, the following suggestions are recommended:

- i. There is need to engage the employees in various managerial level and the executive level in the process of setting goals.
- ii. Also, there is need to create and develop a formidable organizational relationship between employees at unit, division and departmental level of the management
- iii. Communication should be provided through effective introduction of technology in the communication process between the levels with the highest efficiency and effectiveness in order to enhance the process of decision-making.

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