

The availability of dimensions of production efficiency in the Maysan Oil Company

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Abstract

This study sought to know the availability of dimensions of production efficiency in the Maysan Oil Company, as the problem of the study lies in the lack of knowledge of the dimensions of production efficiency and how the impact of its dimensions is reflected in the production efficiency in the company. The study sample included (205) officials in the Maysan Oil Company, and for the purpose of achieving the goal of the study, the questionnaire was adopted to collect data related to the study, and the questionnaire collected was analyzed using the statistical programs (SPSS.V.23), (Amos V. 23) and the results appear. The company in the field of study seeks to reduce the time of the production process constantly and control the total costs, especially with regard to production costs, to be able to enhance its capabilities in the face of unexpected conditions and reduce defective rates in products and production processes.

Keywords: core capabilities, quality, flexibility.

Introduction

The administration faced increasing challenges as a result of the succession of several variables and developments that the twentieth century witnessed, especially in the last era, and it was expected that these variables and developments would extend from them to occur at the present time. Finding organizational ways and means that can address weaknesses, take advantage of opportunities, and face risks. The administration today must be an organized and important administration in order to raise its productive efficiency and the goals it wants to reach. Productive efficiency appears through an increase in the desire to work in addition to the development of the capabilities that the employee acquires from experience and learning.

the study Problem

In pursuit of organizations that achieve their desired goals, they draw strategies and plans and follow them, through which they ensure their survival and continuity. Economic growth and progress, and this is what calls for emphasizing the importance of productive efficiency, which is a primary goal for organizations. Therefore, organizations seek to integrate employees with competencies and skills that achieve their goals, on top of which is access to high-quality productivity at low costs, which helps them achieve competitive advantage. Hence the problem of the study is the lack of knowledge of the dimensions of productive efficiency and how the impact of its dimensions is reflected on the productive efficiency in the company.

the importance of studying:

The importance of the current study lies in the theoretical and practical aspects:

1. The theoretical importance of the study stems from the importance of productive efficiency as the global trend towards productivity.
2. Serves as guidelines for researchers who conduct experimental research in the future and is of paramount importance in the field of the oil industry in Iraq.
3. The importance of the applied study is highlighted in that it can make contributions that help draw attention to the importance of the dimensions of productive efficiency.

Objectives of the study:

The study seeks to achieve a number of goals in the light of the field problem, which is essentially related to revealing the nature of the dimensions of production efficiency in the Maysan Oil Company. Accordingly, the research seeks to improve goals through: -

1. Knowing the extent to which core capabilities, quality and flexibility contribute to improving production efficiency.
2. Providing conclusions and recommendations that help the company's management and the rest of the organizations to improve production efficiency.

❖ The first axis is the theoretical side

First, the concept of production efficiency

Production efficiency is a concept that is difficult to define. Efficiency can generally be defined as a measurement (usually expressed as a percentage) of actual output to expected standard output. Efficiency measures how well something performs compared to current standards; In contrast, productivity measures output in relation to a given input, say, ton/hour of work. Efficiency is the ratio of actual units produced to the expected standard rate of production in a period of time, standard hours produced to actual labor hours (takes longer means less efficient), and the actual volume of production in value to volume standard in a period of time in terms of value. In the economic aspect, efficiency is the result of the company's activity, and it is a proportion of the effect achieved to bear the expenditure (Kolinski, A. 2013:95).

Productive Efficiency: A measure of how well a given value of input (such as salaries, equipment and drug costs) is converted into an output value (such as fees paid for surgical procedures and subsequent hospital recovery). It is measured as the ratio of the output value to the input value. Productive efficiency is a component of the usual measure of total productivity or multifactor productivity. Canberra,2013:12)(

Defined by (Shoorvarzy & Soleimani, 2013:102) Productivity is the degree of effective use of factors of production. Productivity is basically an intellectual perspective that always tries to improve on what is already there.

And production efficiency in general may mean superiority in achieving the goals of the unit and not only achieving the goals, by ensuring rationality and rationality in converting the unit's resources into goods and services, taking into account that reaching high efficiency may affect the profits of the unit as a whole, it is the proper performance of the elements that were produced in Any unit that is completed on time and at the appropriate cost (Muslim, 2020:49).

Second, the importance of production efficiency

The importance of productive efficiency lies in the fact that it is one of the indicators of judging the level of management's efficiency, and how to take advantage of the available resources in order to obtain the required results, and that it works to develop the internal economy of the organization using production elements and also leads to the

following (Alghouti, 2017:40):

1. Increase the amount of production.
2. Low production time.
3. Increasing utilization rates of available resources and capabilities.
4. Achieving profits and having the ability to invest with self-financing.
5. Efficient use of production capacity and finding employment and employment opportunities.
6. Expanding the scope of the market by providing services and reducing wasted time and wastage of resources and production requirements.

(Ghalandari, 2012:478) also shows the importance of productivity at different levels. The productivity of individuals may be reflected in employment rates, wage rates, employment stability, and job satisfaction or employability across jobs or industries. Enterprise productivity, as well as output per worker, can be measured in terms of market share and export performance. The benefits to societies of increasing the productivity of individuals and organizations may manifest themselves in increased competitiveness and employment, or in the shift of employment from low-productivity sectors to high-productivity sectors. The increase in productivity at any level can be attributed to various factors, for example, new capital equipment, organizational changes, or new skills learned on and off the job. Productivity is influenced by factors at the individual level, such as health, education, training, basic skills and experience; By organization-wide factors, such as management, investment in plant and equipment, and occupational safety and health; and by factors at the national level, such as supportive national macroeconomic and competition policies, economic growth strategies, policies to maintain a sustainable business environment and public investments in infrastructure and education.

(Chang et al, 2015:2) pointed out that companies that adopt a production differentiation strategy aim to create value through customer loyalty, price inflexibility, and create the unique image they achieve through brand image, advertising intensity and fashion, and exclusive distribution networks. Thus, these companies seek to achieve a competitive advantage by investing in the development of products or services that offer unique desirable qualities to customers. Innovative and growth strategies associated with differentiation are more likely to produce results in the long term rather than the short term, and there is a greater chance of failure associated with these strategies compared to less innovative strategies. A firm that is able to produce a unit with minimum inputs will have a competitive advantage which it can take advantage of to enjoy superior profits or push competitors out of the market. Further, "Production efficiency " is an important characteristic of product performance" and therefore higher production efficiency means better control and utilization of company resources. A company needs to have competitive advantages over its competitors in order to outperform them. Firms will improve their financial performance to the extent that they can successfully deploy minimal assets and inputs to achieve desired sales.

Third: the dimensions of production efficiency

1- Core capabilities

Companies with a product leadership strategy need to rapidly change production and organizational processes in order to meet changing market and customer preferences. This uncertainty requires greater depth and breadth of skills, greater attention to quality, and commitment to organizational goals. HR practices fulfill these requirements by emphasizing a long-term focus with high levels of HR involvement, a set of individual and group criteria for performance appraisal, and extensive and continuous training and development that dramatically improve productivity. (Wang & Verma, 2012:409). It must rely on initiatives and ideas that arise from a highly committed workforce in order to achieve success it must align with the interests of the company and the interests of its employees. Companies that want to implement HR engagement programs to improve efficiency and productivity must find ways to encourage HR loyalty and commitment, and the benefits of work-life balance can help achieve this Objectives .

Human resource management must play a major role in managing any change in the organization. The Human Resources Department can provide analytical assistance and advice, alert people to issues, as well as anticipate and solve people-related problems before they become serious. He has a unique opportunity to use his knowledge not only about the essential qualities of the employees but also about the tools and procedures to prevent the company from losing these key human resources. These human resources can help companies deal with current and upcoming economic, financial, manufacturing, regulatory, and other challenges as they prepare for a period of growth (Hoke et al, 2020:134). In addition, time is one of the many resources available to the use of every organization and every human effort. Effective use of this resource along with other resources leads to increased and improved productivity (FOLASADE, 2014:9).

Time management involves investing time to determine what one wants from one's activities. It is the process of using time in order to accomplish certain tasks in an efficient and effective manner using skills and tools to achieve organizational tasks and goals. It has also been described as a way for managers to increase the effectiveness of work performance (therefore, effective time management is key to high levels of performance and the latter is essential to

organizational success. Thus time management becomes a process by which individuals can accomplish organizational tasks and goals. In addition, time management often They are thought or presented as a set of time management skills. The theory is that once people master time management skills, they will be more organized, efficient, and happier (Al-Marri, 2019:35). Time is an important factor in its management that means rationalizing behavior, using the available methods, possibilities and capabilities to achieve the goal to be achieved on time, and in terms of motivation, one of the important forces in the system in building personality and motivating behavior and orientation towards a certain point of view) The importance of time also aims at good organization Which can bring the traits which give importance to time in organisation, according to great thrust. Collaboration between group members and a sense of collective responsibility, as well as organizing work across group members to solve many important problems that the organization may face, listening to all its specialists who have a direct relationship with decision-making requires clarifying the importance of time in managing the success of service organizations (Al-Sarn, 2018 : 124-125)

2- Quality

Human resources, especially high-quality human resources, are playing an increasingly crucial role. In order to perform the above process well, the factor that has the most important role is the human factor. Qualified and high-quality human resources will make the renewal process in the country faster and achieve higher results. Industrialization and modernization of the country requires many important factors such as capital, science, technology and natural resources. But the most important and decisive factor is still the human being. Compared to other resources, human resources are an internal factor, which decides the success or failure in the social and economic development of each country. Therefore, in comparison with other resources, human resources, especially high-quality human resources, always occupy a central position and play a leading role in the industrialization and modernization of the country. Therefore, (Tien et al,2021:47)

The quality of human resources is defined as the level of education, experience, knowledge and skills required to carry out the tasks that fall to the members in order to achieve organizational goals. (Samiruddin, 2014:882).

Quality of Human Resources Nowadays, human resources, especially high quality human resources in an organization, have been considered as intellectual capital that plays crucial roles in its sustainable development; Thus, high quality human resources are a very important factor for the growth of the industry and the local or national economy in general. It is also believed that human resource development should take into account “capacity, equity, empowerment and sustainability”. (Quynh et al, 2017:208).

3- Flexibility

It is mentioned (Veise et al, 1971: 2014) that the term “flexibility in human resources” refers to the capabilities of human resource management and the extent to which the organization’s ability to effectively adapt during the appropriate time to the events and changes of the external environment or within the organization. (Kumari & Pradhan 2014: 44) shows that flexibility Human resources are concerned with multi-talented workers and knowledge of their experience, behavior and level of education, in addition to the ability to develop a human resources system in an organizational aspect that would manage workers completely in order to be able to compete on the basis of responding to environmental changes and achieving high levels of productivity in The organization, and the flexibility in human resources is seen as a possibility that helps the organization to face changing environmental conditions, and that this ability to adapt helps the organization in increasing productivity, improving performance and achieving a competitive advantage for the organization that is unique to the rest of the organizations in the business environment. The ability to organize, improve and install a human resources system that will help in the efficient management of human resources and the ability to compete in the face of environmental changes and innovation and enhance productivity in the organization.

❖ The second axis is the practical side

Description and diagnosis of the productive efficiency:

This variable consists of three sub-dimensions, as follows:

1. After core capabilities:

This dimension was measured by nine field indicators with their statistical symbols (CC1-CC9), as it is clear from table (1) the descriptive statistics of the answers of the study sample related to the dimension of core capabilities. One in order to improve production efficiency) had obtained the highest arithmetic mean of (3.737), standard deviation (0.863), and relative coefficient of difference (23.08%), and the intensity of its answer reached (74.73%), and this shows a good consistency in the answers of the study sample towards This paragraph, within the “high” response level, while paragraph (CC5) whose content (the company has the ability to produce more new products in order to achieve its goals and directions.) obtained the lowest arithmetic averages amounted to (3.439) and with a standard deviation of (1.035) and Relative coefficient of difference (30.09%) and response severity (68.78%) within the “high” response level as well.

According to the foregoing, the general weighted arithmetic mean of the core competencies dimension amounted to

(3.636), with a general standard deviation of (0.675), a relative coefficient of difference (18.57%) and response intensity (72.73%), and this dimension obtained a “high” response level. To some extent, which confirms its importance at the level of the sample members, and this indicates that the study sample company is interested in achieving the optimal investment of the available resources as much as it can and developing its operations by relying on the techniques used in planning, development and production of new products and the effectiveness of planning and product development processes, which in turn leads to improving production efficiency.

table (1) Descriptive statistics for the core competency dimension

| Paragraph | Strongly agree | Arithmetic mean | standard deviation | answer intensity % | answer level |
|-----------------|----------------|-----------------|--------------------|--------------------|--------------|
| 1 | 3.693 | 0.928 | 25.13 | 73.85 | high |
| 2 | 3.688 | 0.858 | 23.25 | 73.76 | high |
| 3 | 3.722 | 0.771 | 20.70 | 74.44 | high |
| 4 | 3.693 | 0.827 | 22.41 | 73.85 | high |
| 5 | 3.439 | 1.035 | 30.09 | 68.78 | high |
| 6 | 3.498 | 0.993 | 28.40 | 69.95 | high |
| 7 | 3.737 | 0.863 | 23.08 | 74.73 | high |
| 8 | 3.702 | 0.837 | 22.60 | 74.05 | high |
| 9 | 3.556 | 0.930 | 26.16 | 71.12 | high |
| General Average | 3.636 | 0.675 | 18.57 | 72.73 | high |

Source: Prepared by the researcher based on the outputs of statistical programs (Microsoft Excel, SPSS)

2. After flexibility:

This dimension was measured with six field indicators with their statistical symbols (FL1-FL6), as it is clear from Table (2) the descriptive statistics of the answers of the study sample related to the flexibility dimension. The strategic objectives of the quality.) has obtained the highest arithmetic mean of (3.654), standard deviation (0.919) and relative coefficient of difference (25.16%), and the intensity of its answer reached (73.07%), and this shows a good consistency in the answers of the study sample towards this paragraph. , and within the level of "high" response, while paragraph (FL5) whose content (the company's management seeks to constantly reduce the time of the production process) obtained the lowest arithmetic averages of (3.400), with a standard deviation of (0.978) and a relative coefficient of difference of (28.77%)) and response severity (68.00%) and within the response level of "moderate".

According to the foregoing, the general weighted arithmetic mean of the flexibility dimension was (3.520), with a general standard deviation of (0.707), a relative coefficient of difference (20.10%) and response intensity (70.39%), and this dimension obtained a “high” response level, which Emphasizes its importance at the level of the sample members, and this indicates that the study sample company is interested in monitoring the progress it is making in achieving its strategic quality objectives and seeks to reduce the time of the production process constantly and control the total costs, especially with regard to production costs, to be able to enhance its capabilities in the face of unexpected circumstances Reducing defective rates in products and production processes.

Table (2) Descriptive statistics for the elasticity dimension

| Paragraph | Strongly agree | Arithmetic mean | standard deviation | answer intensity % | answer level |
|-----------------|----------------|-----------------|--------------------|--------------------|--------------|
| 1 | 3.654 | 0.919 | 25.16 | 73.07 | high |
| 2 | 3.605 | 0.776 | 21.54 | 72.10 | high |
| 3 | 3.468 | 0.894 | 25.78 | 69.37 | high |
| 4 | 3.434 | 1.025 | 29.85 | 68.68 | high |
| 5 | 3.400 | 0.978 | 28.77 | 68.00 | Moderate |
| 6 | 3.556 | 0.904 | 25.41 | 71.12 | high |
| General Average | 3.520 | 0.707 | 20.10 | 70.39 | high |

Source: Prepared by the researcher based on the outputs of statistical programs (Microsoft Excel, SPSS)

3. Quality dimension:

This dimension was measured with eight field indicators with their statistical symbols (QU1-QU8), as it is clear from

Table (3) the descriptive statistics of the answers of the study sample related to the quality dimension, as it is noted that the paragraph (QU1) whose content is (the use of modern resources to accomplish production processes..) It obtained the highest arithmetic mean of (3.707), standard deviation (0.859), and relative coefficient of difference of (23.16%), and the intensity of the answer to it reached (74.15%), and this shows good harmony in the answers of the study sample towards this paragraph, and within the level of the answer. High”, while paragraph (QU6) whose content (the company has the ability to respond quickly to changes in the production process) obtained the lowest arithmetic averages of (3.429), with a standard deviation of (1.001), and a relative coefficient of difference of (29.18%) and Response severity (68.59%) and within the response level "high" as well.

According to the foregoing, the general weighted arithmetic mean of the quality dimension was (3.566), with a general standard deviation of (0.762), a relative coefficient of difference (21.36%) and response intensity (71.32%), and this dimension obtained a “high” response level, which It confirms its importance at the level of the sample members, and this indicates that the study sample company seeks to improve the quality of its products depending on the efforts of employees, especially those assigned to work in the production department, by making good use of the available resources, adopting advanced modern technology, reducing production cycle times and responding quickly to changes in conditions The production process and effective dealing with the high rates of waste in production units to achieve this.

table (3) Descriptive statistics for the quality dimension

| Paragraph | Strongly agree | Arithmetic mean | standard deviation | answer intensity % | answer level |
|-----------------|----------------|-----------------|--------------------|--------------------|--------------|
| 1 | 3.707 | 0.859 | 23.16 | 74.15 | high |
| 2 | 3.668 | 0.879 | 23.95 | 73.37 | high |
| 3 | 3.576 | 0.846 | 23.67 | 71.51 | high |
| 4 | 3.595 | 1.003 | 27.91 | 71.90 | high |
| 5 | 3.498 | 0.922 | 26.35 | 69.95 | high |
| 6 | 3.429 | 1.001 | 29.18 | 68.59 | high |
| 7 | 3.615 | 0.982 | 27.16 | 72.29 | high |
| 8 | 3.439 | 1.030 | 29.95 | 68.78 | high |
| General Average | 3.566 | 0.762 | 21.36 | 71.32 | high |

Source: Prepared by the researcher based on the outputs of statistical programs (Microsoft Excel, SPSS)

After reviewing the statistical description of all dimensions of the productive efficiency variable and the resulting responses from the study sample regarding its sub-dimensions, Table (4) shows the descriptive statistics and the general arrangement of the dimensions of the productive efficiency variable in the field, which reflects the extent of interest of the respondents in these dimensions, as they are arranged as follows (intrinsic capabilities dimension, quality dimension, flexibility dimension) respectively.

As for the productive efficiency variable, it achieved a general weighted arithmetic mean of (3.574) and its standard deviation value (0.669), which indicates the dispersion of the sample’s answers from its arithmetic mean, and a relative coefficient of difference of (18.71%) and the severity of the achieved answer reached (71.48%). Thus, he achieved a "high" response level, and this indicates that this variable had a high degree of importance according to the answers of the sample members.

Table (4): Descriptive statistics for the productive efficiency

| Dimensions | Strongly agree | Arithmetic mean | standard deviation | answer intensity % | answer level |
|-------------------|----------------|-----------------|--------------------|--------------------|--------------|
| core capabilities | 3.363 | 0.675 | 18.57 | 72.73 | high |
| Flexibility | 3.520 | 0.707 | 20.10 | 70.39 | high |
| quality | 3.566 | 0.762 | 21.36 | 71.32 | high |
| General Average | 3.574 | 0.669 | 18.71 | 71.48 | high |

Source: Prepared by the researcher based on the outputs of statistical programs (Microsoft Excel, SPSS)

Conclusions

We conclude from the results of the statistical analysis of the study that the company in the field of study is interested in achieving the optimum investment of the available resources as much as it can and developing its operations by

relying on the techniques used in planning, development and production of new products and the effectiveness of the planning and product development processes and that the company in the field of study is interested in monitoring the progress it is making in achieving its goals. The strategy for quality seeks to reduce the production process time continuously and control the total costs, especially with regard to production costs, to be able to enhance its capabilities in the face of unexpected circumstances and reduce defective rates in products and production processes. The company in the field of study also seeks to improve the quality of its products depending on the efforts of employees, especially those assigned to work in the production department, by making good use of available resources, adopting advanced modern technology, reducing production cycle times, rapid response to changes in the conditions of the production process, and effective dealing with high rates of waste in units. Production to achieve this, which in turn leads to improving production efficiency.

Recommendations

1. Attention to achieving the optimal investment of the available resources and developing its production processes through the adoption of modern techniques and technology and by scientific and technical methods and in a way that is reflected in reducing costs and developing the product that leads to improving production efficiency.
2. Paying attention to improving the quality of its products depending on the efforts of employees, reducing production cycle times, responding quickly to changes in the production process conditions, and controlling total costs, especially with regard to production costs, in order to be able to enhance its ability in the face of unexpected conditions and reduce waste rates in production units.

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