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## EVALUATION OF THE ECONOMIC PERFORMANCE OF NABAA AL-ATABA PURE DRINKING WATER PROJECT IN NAJAF

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**ABSTRACT.** The bottled drinking water industry is one of the important industries within the industrial sector, as it is one of the most dynamic food and beverage industries, because of its close link to humans and their health, they need technology and special care from the rest of the other food industry because they affect humans mainly, so the hypothesis of this research was that the Ataba spring factory of Fayd Al-Qassim Company with its advantages was subjected to a decrease and a varying rise in the level of production and revenues. The economic evaluation according to specific criteria will help to highlight the reasons that brought the company to those levels of production, and the research has reached several conclusions, the most important of which is that the field study of the laboratory has achieved the research hypothesis in the importance of proper and accurate selection of economic evaluation indicators in order to give a clear and real picture of the Threshold Spring Plant, through which deviations have been identified and how to address them in order to push the work forward and develop it effectively and distinctly, and in light of the conclusions, the research reached a number of recommendations, including the application of economic performance standards periodically in the Ataba spring laboratory to identify deviations whenever they exist and increase the performance of economic variables in them.

**JEL Classification:** J60, J64, J68

**Keywords:** Economic Performance Evaluation, Ataba Spring Laboratory.

### Introduction

The performance evaluation process is the last stage of the task in any company or project, which begins with setting goals, as it in turn represents a response to the company's mission and activation of activities that depend on the available resources in the context of the company's interaction with its external surroundings, through its quest to obtain the maximum possible energy for the purpose of achieving its balance and developing this balance towards growth, which makes success an important result that provides the company with more

opportunities and a wider field, so the field of study of performance efficiency evaluation is considered one of Important areas, as it includes evaluating the efficiency of the economic performance of projects, factories and companies, whether productive or industrial, and this importance lies in knowing the extent to which productive companies succeed in achieving their goals or failing, hence the economic importance of food industry laboratories as one of the important industries that have a close link to man and his health, including the Ataba spring factory in Najaf, one of the company's formations, Fayd Al-Qassim, which is affiliated with the Holy Upper Shrine, which is characterized by the quality and importance of its products, and on this basis the subject of the study was chosen Under the title (Performance Efficiency Evaluation of the Ataba Spring Water Project in Najaf), the research aims to identify the level of performance efficiency of the laboratory for the period (2016-2021) through the use of performance efficiency evaluation process criteria.

## **1. Research Methodology**

### ***1.1. Search problem***

The research problem stems from the fact that drinking water filling plants in general and the Ataba spring plant in particular, although it is a key axis in the food industry, but it was not of a high contribution to economic development as it is not commensurate with the available capabilities, as this plant suffers from several problems and challenges, which requires an evaluation of the efficiency of economic performance to improve the level of exploitation of financial and human resources to achieve the economic goals set by the laboratory, so the research problem is In the following question: "What is the level of achievement of the objectives set for the Ataba spring plant in light of the influence of market size factors, sales volume, costs, the intensity of competition by other factories that produce the same product, production efficiency and efficiency of production elements"

### ***1.2. Importance of research***

The importance of the research comes from the nature of the commodity produced by the Ataba Spring Factory, as food products are strategic and necessary commodities that are not subject to continuous change in their quality and specifications because of their association with human life, whether from the economic or humanitarian side, as well as the process of evaluating the economic performance of an economic project represented in the Ataba Laboratory, which in turn contributes to activating the economic reality of the city of Najaf in particular and the country in general, and through the performance evaluation process, the efficiency of resource allocation is ensured. available to the laboratory and its optimal use, as well as knowing the percentage of deviations and ways to address them from the economic level, so the importance of research comes from highlighting the evaluation of the economic performance of the company's Ataba spring laboratory, Fayd Al-Qassim, for the study period 2016-2021, depending on the most important economic criteria and indicators, and the extent to which the required goals are achieved.

### ***1.3. Research Objectives***

Based on the nature of the research problem and its importance, the research sought in general to highlight the importance of conducting the performance evaluation process for the

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Ataba Spring Laboratory through the use of economic performance evaluation standards, as this general goal arises several goals that the research seeks to achieve, which are as follows:

- A-Identify the importance of the Ataba Spring Laboratory and its role in Najaf Governorate.
- B-Analyzing the indicators and criteria of economic evaluation, diagnosing deviations in some indicators, analyzing them and making proposals.

### ***1.4. Research hypotheses***

To achieve the objectives of the research and answer the question contained in the problem, it proceeds from the premise that:

"The possibility of expanding and developing the economic performance of the Ataba Spring Plant through the economic resources available to it, which can be exploited to cover part of the local demand in Najaf Governorate, and the performance of the plant varies in the exploitation of the mentioned economic resources and then inferred from the application of economic evaluation criteria from them."

### **2. Third: The concept and conditions of criteria for evaluating economic performance**

The standard is a means that can be used in order to make a decision or objective judgment in a specific case, and the rule on which the standard is built usually varies, including economic, legal, political or social, and the standard takes multiple forms, it may be a phrase or a standard sentence or a mathematical rule or ratios and equations that are fed with information taken from the real reality of the company or project and often rely on mathematical ratios as they are more accurate in showing the reality of the company. The Iraqi Financial Audit Bureau also referred to the concept of the standard as a basis or model developed for the purpose of measuring and comparing a specific performance, while the General Assembly of Supreme Audit Institutions defined the standard as a means, method or procedure through which the development of the company is examined according to information and data, and there are a number of characteristics and conditions that must be met in the performance evaluation standards, including:

- ✓ To be easy and simple in the measurement process.
- ✓ To be able to provide information that helps to reach the desired purpose and quickly.
- ✓ It should be undistorted and shaded.
- ✓ It can be expressed in specific concepts, preferably in digital form.

Therefore, performance evaluation standards and indicators are primarily a means of effective and effective control, which in turn is a good means of planning, as it leads to the provision of the necessary information and data on the feasibility and effectiveness of any of the plans developed to be adopted in order to make the necessary and appropriate adjustments to it and improve the level of performance.

### **3. Fourth: About the Ataba Spring Factory of Fayd Al-Qassim Company**

The Ataba Spring Factory is one of the branches of Fayd Al-Qassim Company, as the company was established Fayd Al-Qassim in Iraq in accordance with the Public Companies Law No. (22) of 1997 and Article (8) of the Law of the Ministry of Industry and Minerals No. (38) of 2011 and the company is a self-financed economic production unit owned by the Holy

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Shrine and is based in Najaf Al-Hanana - opposite the Najaf Chamber of Commerce. Therefore, the Ataba spring factory is one of the branches of Fayd Al-Qassim Company, where work began to establish the factory in 2011 and commercial operation began work and actual production began in January 2014, and the plant is located on Karbala Road called Ya Hussein Road (pbuh) opposite the column No. (96), and the factory produces water filled with plastic cups (mug) with a size of (200) mm and packed with carton boxes (cartons), the production capacity of the production lines is (1,750,000) cartons annually for For carton boxes and (105,000,000) mugs annually for plastic cups, where one carton of bottled water includes (60) mugs. Therefore, the Ataba spring factory for the production of mineral water is one of the important economic projects of the company, Fayd Al-Qassim and the Holy Upper Shrine, as it works to provide pure, healthy drinking water that meets the needs of the consumer, as the project was distinguished by the quality of production according to the latest devices and methods used globally.

## 4. Fifth: Analysis of the costs of the Ataba spring plant

We will study the most important items, which constitute the largest percentage of the total costs of the company for the period (2015-2021), namely:

### 4.1. Materiality of total cost items

After explaining the details of the production costs of the plant above, we will follow the development of these items through the table above, as the results came in first place commodity requirements in terms of relative importance to total total costs, as it reached the highest contribution percentage (98%) in 2019 and 2020 and its lowest contribution percentage (95%) in 2016 and 2017, and the reason for this is due to the high Expenses for the purchase of packaging materials, fuel and oils in addition to other miscellaneous and this is related to the quantities of production and storage of raw materials at the factory stores, and service supplies come in second place in terms of their relative importance to the total total costs, while salaries and wages ranked third in terms of their relative importance to the total total costs, while Extinctions of the fixed assets of the plant ranked fourth in terms of relative importance to the total total costs, knowing that it did not show a contribution rate in the financial records of the plant in 2021.

Table No. (1) Analysis of cost items of Nabaa Ataba Laboratory Products for the Period (2016-2021)

Items		Salaries and wages	Commodity Supplies	Service Supplies	Extinctions	Total costs
2016	Value	6,863,000	423,526,409	6,321,441	8,333,000	445,043,850
2017	Value	7,700,000	461,048,455	6,916,792	8,333,000	483,998,247
2018	Value	5,467,800	502,455,024	5,983,518	8,333,000	522,239,342
2019	Value	11,623,000	1,240,197,878	8,010,544	8,333,000	1,268,164,422
2020	Value	11,723,000	1,208,463,277	9,663,770	8,333,000	1,238,183,047
2021	Value	12,843,850	1,751,954,597	34,579,456	8,333,000	1,807,710,903
Total	Value	56,220,650	5,587,645,640	71,475,521	49,998,000	5,765,339,811
	%	0.98%	96.92%	0.12.4%	0.87%	100%

Source: Prepared by the researcher based on the results of previous tables.

#### **4.2. Materiality of total income items**

Definition of revenues as cash inflows as a result of investing in different aspects of the production company, so there are several items for the revenues of the Ataba Spring plant of Fayd Al-Qassim Company, which will be shown in the table below during the study period as follows:

Table No. (2) Analysis of Ataba Spring Plant Revenues for the Period (2016-2022)

t	Sunnah	Total revenue per year
1	2016	636,615,500
2	2017	695,387,700
3	2018	669,287,425
4	2019	1,700,498,900
5	2020	1,661,273,475
6	2022	2,324,319,745
Total		7,687,382,745

Source: Prepared by the researcher based on the financial statements of the Ataba Spring Factory in Najaf.

### **5. Sixth: The results of the application of performance evaluation standards for the company's Ataba spring factory Fayd Al-Qassim / Najaf for the period (2016-2021)**

#### **5.1. Production capacity standard**

The types of production capacities of the factory's products will be compared by studying the production quantities and the extent to which the plant exploits the previously mentioned production capacities through several indicators that we will explain in the table below:

Table (3) Design, Plan and Available Power of Ataba Spring Plant for the Period (2016 - 2021)

Sunnah	Design Production Capacity	Percentage of utilization of production capacity	Available Production Capacity	Percentage of use of available energy	Planned production capacity	Percentage of use of planned energy
2016	777600	43%	518400	64%	648000	51%
2017	777600	50%	518400	75%	648000	60%

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2018	2289600	18%	1984320	21%	992160	42%
2019	2289600	54%	1984320	63%	1322880	94%
2020	2289600	56%	1984320	65%	1322880	97%
2021	2289600	73%	1984320	84%	1653600	101%

Source: Prepared by the researcher based on the financial statements of the Ataba Spring Factory in Najaf.

Through the results of the above table, the design capacity of the factory appeared by (777,600) cartons for the period from 2016 to 2017 with a utilization rate ranging between (40%-50%), and a design capacity was added to the project of a new production machine in the factory in the amount of (1512000) cartons in 2018 so that the total design capacity is (2289600) cartons for the period from 2018 to 2021, and this is reflected in the percentage of use, as it appeared in 2018 by (18%), while it ranged between (50%-75%) during the period from 2019-2021, when The results of the production capacity available to the factory appeared by (518400) cartons in 2016 with a utilization rate of (64%) and (1984320) cartons in 2021 with a utilization rate of (84%), and reached its lowest level (518400) cartons during the period from (2016-2017) with a utilization rate ranging between (60%-75%), and increased during the period (2018-2021) by (1465920) cartons until it reached its highest level (1984320) cartons in 2020 with a utilization rate of (20% - 85%), and the amount of planned production capacity of the plant ranged Between (648,000) cartons in 2016 and (1653,600) cartons in 2021, with a benefit rate of (51%-101%), as it was characterized by the disparity between high and low during the study period, while the remaining years were distributed to (648,000) cartons in 2017, (992,160) cartons in 2018, and (1322880) cartons for the period from (2019-2020), when the utilization rates appeared by (60%, 42%, 94%, 97%) for the period from (2017-2020) and respectively. For each of the years (2018, 2017, 2019, 2020 and 2021), while there was excess capacity that was not used to increase production for the period (2018), which in turn was directly reflected in an increase in additional costs that were not offset by the sale of products.

## 5.2. Total productivity

The total productivity of the Ataba spring plant through the following equation:  

$$\text{Total productivity} = \text{inputs} / \text{outputs} \text{ or } \text{total productivity} = \text{production value} / \text{factor value}$$
The increase in this percentage indicates that there is a growth in the value of production outputs and a higher rate of output growth, and the total productivity index can be shown according to the table below:

Table (4) Total Productivity of Ataba Spring Plant for the Period (2016-2021)

Sunnah	Production value	Salaries and wages	Commodity Supplies	Service Supplies	Extinctions	Money capital	Total production elements	Total productivity
2016	621,285,500	6,863,000	423,526,409	6,321,441	8,333,000	5,000,000,000	5,445,043,850	11%
2017	665,539,400	7,700,000	461,048,455	6,916,792	8,333,000	5,000,000,000	5,483,998,247	12%
2018	641,988,300	5,467,800	502,455,024	5,983,518	8,333,000	5,000,000,000	5,522,239,342	12%
2019	1,643,658,900	11,623,000	1,240,197,878	8,010,544	8,333,000	5,000,000,000	6,268,164,422	26%

<b>2020</b>	1,627,386,475	11,723,000	1,208,463,277	9,663,770	8,333,000	5,000,000,000	6,238,183,047	26%
<b>2021</b>	2,283,405,850	12,843,850	1,751,954,597	34,579,456	8,333,000	5,000,000,000	6,807,710,903	34%

Source: Prepared by the researcher based on the financial statements of the Ataba Spring Factory in Najaf.

From the results of the above table, it is clear that there is an increase in the value of outputs for the years 2016 and 2017, and this is a good indicator, as the total productivity rate for the year 2016 was (11%) and the year (2017) by (12%), as the value of inputs ranged between (5,438,180,850 - 5,476,298,247) dinars, while the value of outputs appeared at a value of (636,615,500 - 695,387,700 ) JD. In 2018 of the study period, a clear decrease appeared in the percentage of outputs, as the year 2018 achieved the lowest percentage of outputs compared to inputs and was equal to the year 2016 and this is due to the entry of new machines to the plant and the purchase of raw materials High production costs and charging each piece with sunken costs, so the economic unit should reduce costs to be able to avoid risks and losses and achieve continuity in production, as for the total productivity of the plant during the period (2019-2020), it was characterized by stability, as its percentage reached ( 26%) The value of outputs for the two years ranged respectively at a value of (6,256,541,422-6,226,460,047), and then increased to reach (34%) in 2021 with a value of (6,794,867,053), so the value of this criterion began to rise during the years 2019, 2020 and 2021, as the reasons for the increase in the productivity standard of the plant during the study period are due to two reasons, the first is the increase in the value of production factors as a result of the high cost of production, especially the value of wages and salaries and the value of commodity and service production requirements, and the second is the increase in the value of production due to the high value of sales and high prices Sale.

### ***5.3. Value Added Standard***

The added value is calculated according to the following formula:

Gross Value Added = Production Value – Value of Production Requirements

Value added can be measured according to the following table:

Table (5) Total Value Added of Ataba Spring Plant for the Period (2016-2021)

<b>Sunnah</b>	<b>Added Value</b>
<b>2016</b>	<b>167,711,771</b>
<b>2017</b>	<b>185,982,611</b>
<b>2018</b>	<b>125,093,207</b>
<b>2019</b>	<b>345,653,754</b>
<b>2020</b>	<b>372,627,788</b>
<b>2021</b>	<b>423,159,739</b>

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Source: Prepared by the researcher based on the financial statements of the Ataba Spring Factory in Najaf.

Through the results of the above table, we note that the average total value added of the Ataba spring plant in Najaf during the study period ranged between the amount of (120,000,000) dinars and (420,000,000) dinars, as the results of the added value varied according to the duration of the study.

**5.4. Standard rate of return per dinar**

This indicator is calculated by the following formula:

Rate of Return per Dinar = Total Revenue / Total Costs

The results of measuring the standard rate of return per dinar can be shown through the following table:

Table (6) Standard of Rate of Return on One Dinar for the Ataba Spring Plant for the Period (2016-2021)

<b>Sunnah</b>	<b>Rate of return per dinar</b>
<b>2016</b>	<b>2,027</b>
<b>2017</b>	<b>2,029</b>
<b>2018</b>	<b>2,028</b>
<b>2019</b>	<b>2,031</b>
<b>2020</b>	<b>2,033</b>
<b>2021</b>	<b>2,034</b>

Source: Prepared by the researcher based on the financial statements of the Ataba Spring Factory in Najaf.

The above table we note an increase in the rate of return on the dinar for the factory. The reasons for the increase in the return of one dinar somewhat, is the increase in revenues due to the increase in production in the factory due to the increase in demand for the factory's products. The ability of the factory to compete with local products, due to the increase in raw materials, all these reasons led to a qualitative decrease in production costs and the ability to compete with the local product.

**5.5. Financial Profit Criterion**

The profit criterion is extracted by excluding the total costs from the total revenues, by applying the following equation :

Financial Profit = Total Revenue - Total Costs

The results of measuring the financial profit criterion can be shown through the following table:

Table (7) Financial Profit Standard for Ataba Spring Plant for the Period (2016-2021)



Source: researcher statements of Factory in  From the table, we see may be months and	Sunnah	Rate of return per dinar
	2016	- 7,713,229
	2017	30,828,961
	2018	- 61,934,518
	2019	143,156,754
	2020	112,642,262
	2021	155,956,338

Prepared by the  
based on the financial  
the Ataba Spring  
Najaf.

results of the above  
that the profit and loss  
distributed between the  
years of study, but the

total result for each year was as follows:

1) During the study period of (2016-2017), it is noted that the results obtained indicate that the laboratory achieved high profits, as the financial profit appeared in 2016 by (26,982,882) dinars, while in 2017 by (32,570,201) dinars.

2) When the year 2018 achieved a loss of (-46,059,913) dinars, due to the purchase of production machinery, and an increase in total costs.

3) The results showed that the highest financial profit was in the year 2021 by (155,029,495) JD, while the profit results for the remaining research period were (87,831,567) JOD and (108,545,664) JOD for the years (2019 and 2020) respectively. We note that the coverage of revenues for expenses in the laboratory during the study period is due to the increase in sales, which represent the largest part of the factory's revenues as a result of the trademark carried by the laboratory and associated with the sacred religious edifice to which the laboratory belongs.

## Conclusion

After studying the results obtained from the analysis of the data of the Ataba Spring laboratory in the previous chapters and for the period from (2016-2021), the researcher reached a number of conclusions, including:

1) The percentage of utilization of the design and available capacity during the research period (2016-2021) was good, while there was excess capacity that was not used to increase production for the period (2018), which in turn was directly reflected in the increase in additional costs that were not matched by the sale of products.

2) Each of the economic indicators of the factory from the value of production witnessed a clear development during the study period, which requires the need to follow-up, support and continue this matter, as the value of production increased from (621,285,500) dinars in 2016 to (2,283,405,850) dinars in 2021, as the reasons for the increase in the productivity standard of the plant during the study period are due to two reasons, the first is the increase in the value of production factors as a result of the high cost of production, especially the value of wages and salaries and the value of commodity and service production requirements, and the second is the increase in the value of production due to the high value of sales and high selling prices.

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3) The gradual increase in the value of production in the plant during the study period and the decrease in the total costs led to achieving good financial profits for the plant, as it reached the highest financial profit in the year 2021 by (155,029,495) dinars, and the plant was able to achieve an added value of a good level, as it reached the highest value in the year 2021 by (404,171,637) dinars.

4) As for the criteria for evaluating the performance efficiency of the laboratory during the period (2016-2021) for each of (financial profit, rate of return on invested capital, total added value), it was found that there is a good economic efficiency.

### Recommendations

1-The need to conduct a process of evaluating the efficiency of performance to work periodically and continuously to ensure the achievement of the goals planned and drawn by the laboratory management.

2-The need for the laboratory to develop programs that facilitate the process of conducting a comprehensive performance efficiency evaluation in all its joints in order to avoid problems, obstacles and bottlenecks and ensure that they do not occur in the future.

3-The need to emphasize attention to the technical and technological aspect by introducing more modern technologies in the industrial processes of the various productive sections of the plant, as access to the process of evaluating the efficiency of performance accurately requires the availability of detailed and accurate figures and data.

4-Adopting a rational marketing plan for the factory's products with the need to conduct advertising and media campaigns, publish the quality specifications of the lab's products, and encourage the private sector to use them.

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