EVALUATION OF THE PERFORMANCE OF SEMI-GOVERNMENTAL INSTITUTIONS USING FINANCIAL ANALYSIS TECHNIQUES / CASE STUDY OF CONSULTING OFFICES / UNIVERSITY OF THI-QAR

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Article history:		Abstract:
		The research aims to identify the nature of semi-governmental institutions, identify financial analysis techniques, and demonstrate the extent to which they can be used in evaluating the performance of these institutions through describing and analyzing the financial statements of semi-governmental institutions/consulting offices. In order to achieve the research objectives, the researcher studied and analyzed the actual reality of the financial statements of the engineering consulting office for the period (2019 - 2021) using a set of financial analysis techniques, the most important of which are (vertical analysis, horizontal analysis, financial ratios, and the Althman model). A set of conclusions were reached, the most important of which are: Financial analysis techniques are used to analyze the financial data, represented by the financial statements available to institutions, and to study the financial information generated from the analysis of that data using the selected techniques, represented by financial ratios, in order to identify the financial performance of the institution that is the research sample. Among the most important recommendations that were developed are: The engineering consulting office should follow financial analysis in order to evaluate its financial performance by using various financial analysis techniques. The engineering consulting office should establish an administrative unit managed by specialists in the field of financial analysis who apply financial analysis techniques in order to evaluate the current financial performance and evaluate it towards addressing Weaknesses, maintaining and developing strengths, as well as benefiting from future investment opportunities and facing the challenges of the external environment.

INTRODUCTION

Engineering consulting offices are considered semi-governmental academic institutions that aim to strengthen the relationship between the University and academic study on the one hand and society on the other hand by providing engineering consulting services to many ministries, state departments and the private sector, as this includes the preparation of designs for service and industrial institutions in addition to audit, supervision and quality control of those projects as well as structural assessment work, soil investigations and environmental impact and training engineers besides the activity of laboratory tests in the office laboratories and field laboratory management of projects and quality control of their tests . Consulting offices are one of the institutions that seek to make a profit through the services they provide. Therefore, financial analysis is the best tool for detecting the financial performance of consulting offices. Financial analysis is a tool used to analyze, interpret and evaluate the financial situation for a past or current period of an organization's activity and to identify the strengths and weaknesses of its internal environment and the opportunities and challenges it faces from the external environment.it can be said that financial analysis is a set of financial techniques that are used to assess the financial performance of an organization in the past and the possibility of using them to predict the future. Perhaps the most prominent financial techniques used by financial analysis are: (vertical analysis, horizontal analysis, financial ratios, financial failure prediction models through the use of quantitative analysis models, the most important and most common is the Althman model, so the current research will focus on the practical application of these techniques on the financial statements of the engineering consulting office / Faculty of engineering / Thi-Qar University).

The first search: research methodology

1- The search problem

Due to the importance of research, the research problem can be centered on asking the following main question: "Can Financial Analysis Techniques be used to evaluate the performance of semi-governmental institutions?" Through the main question, the following sub-questions can be derived:

- What are semi-governmental institutions?
- What is the evaluation of institutional performance and what are its types related to and affected by financial analysis?
- What are the financial analysis techniques that can be used to evaluate the performance of semi-governmental organizations, and how can they be applied?

2- Research Importance:

- Description, diagnosis and evaluation of the financial performance of institutions: financial analysis is one of the most important methods by which the financial performance of institutions can be described and evaluated by analyzing and interpreting the financial statements resulting from the activity of those institutions and using financial ratios and indicators.
- The process of describing, diagnosing and evaluating the financial performance of institutions helps in drawing up policies and formulating future financial and investment plans for economic institutions.
- Assistance in making financing and investment decisions: analyzing the financial performance of organizations helps users of financial statements and stakeholders in making appropriate decisions, both those related to financing and investment decisions.

3- Research aims:

- The task is to identify what semi-governmental institutions are.
- The task is to get acquainted with some financial analysis techniques.
- The application of financial analysis techniques through which it is possible to describe and analyze the financial statements of semi-governmental institutions, including consulting offices, and indicate the extent to which they can be used in evaluating the performance of those institutions.

4- Research hypothesis:

- The performance of semi-governmental institutions, including consulting offices, can be assessed using financial analysis techniques.

5- Research Methodology:

The research relied on both the descriptive approach to achieve the theoretical framework of financial analysis techniques and institutional performance assessment and the quantitative analytical approach to achieve the practical framework through the use of financial analysis techniques (financial ratios) to describe and analyze the financial statements for the period 2019-2022.For semi-governmental institutions, including one of the consulting offices affiliated with the University of Dhi Qar, and to indicate the extent of the contribution of these techniques to the evaluation of financial performance .

6- The Community and sample research:

As for the research sample, it was the engineering consulting office - Faculty of Engineering, which represented the research community in the case study of semi - governmental institutions-consulting offices-Thi-Qar University.

7- Temporal and spatial limits of research:

- **Spatial boundaries**: The research was approved in the selection of the engineering consulting office / Faculty of engineering.
- **Temporal boundaries**: To rely on the financial statements of the engineering consulting office – Thi-Qar University for the period from 2019 to 2022.

The Second search: theoretical framework
First: semi-governmental institutions:

The financial system is divided into two parts, the private sector and the government sector. However, there is a third sector called the semi-governmental sector. This sector has the characteristics of both the state sector and the private sector. It is through this paragraph that the semi-state sector is identified.

1- The concept of semi-governmental institutions:

The Iraqi semi-official institutions profit Regulation Law No. 83 of 1961 defined the first article as" any institution appointed by the minister of finance by a statement published in the official gazette if it is established in accordance with the provisions of a law and has a moral personality and is managed by its own board of directors and its funds are government or result from the investment of government funds except municipalities, local administrations and affiliated institutions".

It was defined as those "institutions in which both the state and non-governmental organizations, in certain proportions, share responsibility, whether in managing, financing or supervising them" (Alsuqur:241, 2010)

He also defined the semi-governmental sector (semi-governmental institutions) " semi-governmental companies should not be a separate part, away from Control and from the applicable government laws and regulations, it is true that they are not directly related to the government's human resources law, but this does not mean that executives in them act as their own property, appoint, promote and terminate the services of employees according to their moods, and according to their whims and interests ".

A semi-governmental institution is a "business entity that provides specific government services. Due to their special status, they are not exactly a government agency but they are not private companies either. Find out what semi-governmental agencies are and what services they provide to the government and the public".

2- The purpose of semi-governmental institutions

Semi-governmental institutions perform official functions and provide services to the public. To simplify some services, in practice, such institutions perform government services like a private business. These unique hybrid activities can work independently. However, they receive government financial support, and operate within the guidelines established by the government. (Stever, https://study.com:2022)

3- Characteristics Of Semi-Governmental Institutions

The prevalence of semi-governmental institutions is due to their ability to perform government functions without being burdened by complex government regulations. Strict administrative and budgetary laws restrict the functions of government business. Among the most important characteristics:

- semi-governmental institutions are an attractive alternative because they allow the government to achieve a goal without creating a bureaucracy. For example, one government wants to strengthen the ownership of Higher Education. However, she does not want to put pressure on public resources by adding more government employees, the semi-governmental structure allows governments to hire temporary workers.
- semi-governmental institutions are an attractive alternative because they allow the government to achieve a goal without creating a bureaucracy. For example, one government wants to strengthen the ownership of Higher Education. However, she does not want to put pressure on public resources by adding more government employees, the semi-governmental structure allows governments to hire temporary workers.
- Semi-governmental institutions are an attractive alternative because they allow the government to achieve a goal without creating a bureaucracy. For example, one government wants to strengthen the ownership of Higher Education. However, she does not want to put pressure on public resources by adding more government employees, the semi-governmental structure allows governments to hire temporary workers.
- Semi-governmental institutions combine the efficiency of the government and the private sector. Since these institutions are supported by the government, investors assume that they are lending money to the government. As a result, the interest rates offered to these institutions are quite low. This allows them to raise funds at very low prices.
- Since the enterprise is also a private company, it uses funds more seriously. The waste of resources in semi-governmental agencies is much less.
- The management of all resources, including human resources, is more productive in semi-governmental agencies than in the public sector.
- The basic idea behind the creation of semi-governmental entities is to use some sovereign power, that is, people's faith in the financial power of the government, to lower interest rates on funds that are given to a priority sector. ((Juneja, ISO 2001:2015 Certified Education Provider.

Second: the concept of institutional performance evaluation and its most important types:

Institutional performance is a matter of fundamental importance in democratic systems because this is where accountability is essential to maintain the legitimacy of the government. Responsiveness, accountability, neutrality of government institutions and equality of all citizens are among the main defining features of democracy, while in non-democratic regimes coercion, religion or traditions may serve as a fundamental source of strengthening the system and its legitimacy. Research shows that undemocratic regimes tend to have institutions that perform much worse (i.e. less transparent, less responsive, less efficient).

1- The concept of institutional performance:

Before touching on the concept of institutional performance, it is necessary to touch on the concept of performance as "it is a record of the results achieved, where it embodies the actual behavior of the individual and indicates the degree to which the individual or the organization has achieved the planned goals efficiently and effectively". (Mostafa: 317, 2004)

Institutional performance is defined as "a reflection of the organization's ability to achieve long-term goals, including market value, adaptation to changes in the surrounding environment". (Aleany: 46,2002)

2- The concept of institutional performance evaluation

Defined as part of the control process , which is " the process of directing activities within the organization to reach specific goals and performance assessment is to extrapolate the indications and indicators of control information in order to make new decisions to correct the courses of activities in case of deviation or confirm their actual course if they are actually heading to the desired achievements , that is, the comprehensive control process, including performance evaluation, is mainly concerned with two functions: the first is to try to raise activities in the directions achieved the goals and prevent them from deviating, and the second is to correct the courses of activities, and this is performance evaluation ". (Alsulmiu: 41-42 , 1976)

It is defined as "a process aimed at measuring what has been achieved by a public institution during a specific period of time compared to what has been planned quantitatively and qualitatively, using a set of criteria and indicators with identifying shortcomings and deviations, if any, and ways to remedy them in the present and future". (Alabamian: workshop from January 9-13, 2005)

Abdulaziz Mukhaimer defined it as "the integrated system of the organization's work product in light of its interaction with the elements of its internal and external environment, because of its comprehensiveness and clarity". (Mukhaimer et al.: 9 ,2000)

3- Types of institutional performance

As a result of the diversity of activities in the institution and the main elements of institutional performance represented by (worker, functional, position), categories were formed for evaluating institutional performance, including:

- The process of evaluating the performance of human resources.
- The process of evaluating production performance.
- The process of evaluating marketing performance.
- The evaluation financial performance.
- A balanced performance assessment.

Through this paragraph, the focus will be on evaluating financial performance because it is closely related and influenced by financial analysis through financial ratios, financial indicators and comparative financial statements.

1- Financial Performance:

Financial performance takes a broad look at the position of the enterprise by analyzing its assets, liabilities, revenues, expenses and profits. In general, financial performance analysis is based on four sources: balance sheet, cash flow disclosure, and income disclosure. Whether you are doing internal financial analysis or trying to demonstrate the value of an organization to investors or external lenders, having a detailed understanding of a company's financial performance can help ensure that every stakeholder has an accurate and in-depth picture. (www.netsuite.com)

2- Financial Performance Evaluation:

The concept of financial performance evaluation is an important concept as it focuses on the use of financial indicators that reflect the achievement of the company's economic goals (Abdul Razek and Nasser: 119,2011).

The purpose of evaluating financial performance is to measure the performance of the activities of the economic unit and study the results achieved by the operation at the end of the financial period, which is usually one calendar year, and then make recommendations and proposals necessary to address deviations, if any, or to reach better results in the future by making the best use of available resources (Saeed and Ahmed: 185, 2013). Performance evaluation has also been defined as the process of measuring the company's achievements with indicators that reflect the actual performance results and comparing them with the estimated results, which allows the company to take the necessary measures to correct deviations (dazayt & mabruka: 9, 2013).

Third: financial analysis:

Financial analysis is a means of financial management to assess the financial situation and operational performance of an organization, by answering the following questions: (al-Naimi and Tamimi: 19-20, 2007)

- Are the assets being used in profitable areas?
- Is the profitability of the assets sufficient to cover the company's liabilities in the long term?
- Is the liquidity of current assets sufficient to cover the company's liabilities in the short term?

1- Financial analysis techniques:

a- **vertical analysis:** it is a technique that determines the way the institution applies its revenues and in what proportion its revenues are distributed through the income statement, which is called in the research sample (current operations statement), and the balance sheet statement. In the case of an income statement, each of the elements of income and expenses is defined as a percentage of total revenue. Assets, Liabilities and property rights are represented as a percentage of total assets.

b- **horizontal analysis:** used to compare financial statements between two or more financial years is a tool used for long –term planning by knowing the growth rate for the current year compared to the previous year according to the growth rate formula = (current year-previous year) / previous year.

c- **trend analysis:** trend analysis is used to identify patterns from multiple time periods and plan them in a graphical format so that actionable information can be extracted.

d- **liquidity analysis:** determines the company's ability to meet its short-term financial obligations and how it plans to maintain its ability to repay its short-term debts. The ratios used in the financial analysis of liquidity are as follows:

Table 1 Current Ratio

Current Ratio↓	Explanation
Meaning	It is the liquidity ratio that indicates the company's ability to repay short-term obligations accrued over the next year.
Objective	The adequacy of current assets to cover current liabilities
Calculation formula	(Current assets / current liabilities) *100
Formula items	Current assets: includes cash and the like , debtors , short-term investments, inventory
	Current liabilities: creditors, short-term loans, outstanding short-term liabilities such as taxes due
Explanation	If current assets are > current liabilities: it means that they are in good condition from which short-term obligations can be fulfilled with excess liquidity .
	If current assets are < current liabilities: means that they are in poor condition, i.e. short-term obligations cannot be fulfilled .
	If current assets = current liabilities: it means that they are sufficient only to pay short-term obligations .

Researcher preparation

Table 2 The quick ratio

quick ratio ↓	Explanation
Meaning	is a liquidity ratio that indicates the company's ability to repay outstanding short-term liabilities through current assets that are quickly converted into cash.
Objective	It answers the question: "How sufficient are current assets (current assets) after excluding inventory to cover current liabilities (current liabilities)?"
Calculation formula	(Current assets-inventory / current liabilities) *100
Formula items	Current assets: includes cash and the like, debtors, short-term investments
	Current liabilities: creditors, short-term loans, outstanding short-term liabilities such as taxes due
Explanation	If current assets are > current liabilities: it means that they are in good condition from which short-term obligations can be fulfilled with excess liquidity .
	If current assets are < current liabilities: means that they are in poor condition, i.e. short-term obligations cannot be fulfilled .
	If current assets = current liabilities: it means that they are sufficient only to pay short-term obligations .

Researcher preparation

Table 3 Cash ratio

Cash ratio ↓	Explanation
Meaning	It means the ability of an enterprise to fulfill short-term financial obligations in cash or its equivalent.
Objective	The ability of an enterprise to fulfill short-term financial obligations in cash or its equivalent.
Calculation formula	Cash + cash equivalent (balances in banks) / current liabilities) *100
Formula items	Cash + bank balances
	Current liabilities: creditors, short-term loans, outstanding short-term liabilities such as taxes due

Explanation	If cash > is a current liability: it means that the enterprise has more cash than the enterprise needs to meet short-term obligations, so the situation is not good .
	If the cash is < from current liabilities: it means that the enterprise has a very good cash position because the cash has been invested to make profits or the enterprise has not generated revenue.
	If cash = current liabilities: means that the organization has enough cash to pay what it needs to meet short-term obligations, so the situation is good .

Researcher preparation

e- **Turnover ratio analysis:** The turnover ratio determines how efficiently the enterprise's resources are used. The following ratios are used to perform its analysis:

Table 4 Receivables turnover ratio

Receivables turnover ratio ↓	Explanation
Meaning	Indicate how effective the institution is in collecting credit from debtors
Objective	It calculates how many times an enterprise manages its average debit accounts during a specified period.
Calculation formula	Net forward sales / average accounts receivable
Formula items	Net forward sales = revenue
	Average accounts receivable / debtors=(balance of debtors of the first term +balance of debtors of the last term)/2
Explanation	The interpretation of the results of the ratio is based on their comparison with industry standards or historical data of the enterprise .
	A high percentage indicates that the company is collecting its receivables more efficiently .
	A low percentage indicates problems related to poor collection or increased credit risk .

Researcher preparation

Table 5 working capital turnover ratio

working capital turnover ratio ↓	Explanation
Meaning	They help to determine how efficiently the enterprise uses working capital in its field of activity .
Objective	She calculates how many times working capital generates revenue for the enterprise.
Calculation formula	Net sales / average working capital
Formula items	Net sales = revenue
	Working capital = (current assets – current assets) Average working capital =(first term asset balance +last term asset balance) /2
Explanation	If the ratio is positive, that is, the revenue of the enterprise is greater than the average working capital. This may indicate the effective use of working capital, since the company generates more revenue than the funds credited to its current assets.
	If the ratio is negative, that is, the income of the enterprise is less than the average working capital. This may indicate inefficient use of working capital, since the company generates less revenue than the funds credited to its current assets.

Researcher preparation

Table 6 Total asset turnover ratio

Total asset turnover ratio↓	Explanation
Meaning	It indicates the extent to which the assets of the enterprise are capable of generating sufficient revenue .
Objective	It calculates how many times an enterprise manages assets to generate revenue.
Calculation formula	Net forward sales / average total assets
Formula items	Net sales = revenue
	Average total assets = (first term asset balance +last term asset balance) /2
Explanation	If the ratio is less than 1 ,here the ratio is not good, because the total assets cannot bring sufficient revenue at the end of the fiscal year.
	If the ratio is greater than 1, here the ratio is good, because the total assets can generate sufficient revenue at the end of the fiscal year.

Researcher preparation

f- Profitability analysis: Financial analysis of profitability helps us to understand how the company achieves its profit from its business activities. The following ratios are used to analyze profitability:
1- profit margin
2- operating profit margin
3- profit margin before interest and taxes

g- Predicting financial failure: Financial failure can be predicted through the use of quantitative analysis models, the most important and common are:
1- Beaver model
2- Althman and me cough model
3- Kida model
4- Sherrod model

Through the research, the researcher used the Althman and me cough model for non-industrial enterprises, because the research sample is a service institution

Althman and me cough model (Ben Omar, 2022 ,343).

Z = 6.5X1 + 3.26X2 + 1.05X3 + 6.72X4
Where the:
X1 = net working capital / total assets
X2 = accumulated retained earnings / total assets
X3 = earnings before interest and taxes / total assets.
X4 = book value of debt/total liabilities.
* When it is 2.9 > Z, the model predicts that the company will not go bankrupt.
* When it is 1.23< Z the model predicts that the company will go bankrupt.
• If Z is located between (1.23-2.9), which is known as the gray area, then
* The model cannot accurately judge the probability of bankruptcy or non-bankruptcy of the company

The third topic: the practical framework

Describe and analyze the financial statements of the engineering consulting office-Faculty of Engineering-University of Dhi Qar and indicate the extent to which they can be used in evaluating financial performance through the use of financial analysis techniques (financial ratios) during the period 2019-2022.

First: description of the research sample

The engineering consulting office at the Faculty htof engineering - Thi-Qar University established in 2010 is a specialized office that prepares designs and provides consulting and technical services and laboratory tests to the public and private sectors in the fields of civil, architectural, mechanical, chemical, electrical and everything related to engineering and Environmental Affairs.

Since its establishment in 2010, the office has included professors and consultants with high competence and experience in the field of specialization within its board of directors and its teams, with the support of an outstanding administrative and technical staff.

The office contributed to the preparation of a large number of designs, soil investigation reports, Environmental Impact Reports, economic feasibility study, laboratory tests and supervision of the implementation of projects in various engineering specialties. The office also audited designs for various projects and provided scientific and engineering advice to various sectors in support of construction and the urban renaissance of Thi-Qar governorate in particular and Iraq in general.

Second: application of financial analysis techniques

The adopted historical criterion is applied in the financial analysis, which is based on the performance of the enterprise for previous years or for the base year.

1- Vertical analysis

Table 7 vertical analysis of the statement of current operations of the engineering consulting office for the period from 2019 to 2021

Account name	2019	Vertical analysis	2020	Vertical analysis	2021	Vertical analysis
Current activity income	658957953	100%	658511698	88%	880358640	100%
Accrued interest difference	0	0%	1975000	%0.30	0	0%
Transformational revenues	0	0%	0	0%	0	0%
Other income	0	0%	87313527	%11.70	0	0%
Total revenue	658957953	100%	747800225	100%	880358640	100%
Current expenses						
Salaries and wages	55173000	8%	63722500	%8.50	88660750	10%
Commodity supplies	10054220	2%	3507860	%0.50	6086750	1%
Service supplies	432531824	66%	449213938	60%	558672851	63%
Consumptions	28522240	4%	30484740	4%	31967210	4%
Total expenses	526281284	80%	546929038	73%	685387561	78%
Surplus of ongoing operations (first stage)	132676669	20%	200871187	27%	194971079	22%
Transfer expenses (except for account 384*)	65895795	10%	84582522	11%	103035864	12%
Other expenses	0	0%	0	0%	0	0%
Total	65895795	10%	84582522	11%	103035864	12%
Operational surplus (second stage)	66780874	10%	116288665	16%	91935215	10%

Preparing the researcher based on the financial statements of the engineering consulting office during the research period

Table no. 7 shows the vertical analysis of the statement of account for the ongoing operations of the research sample .He points out that the surplus of ongoing operations in the first stage during 2019 amounted to about 20% of the year's revenues and grew during 2020 by 7% and during 2021 by 2%, indicating that the total revenues during the period were constantly increasing, but the fluctuations that occurred during the period were observed due to an increase in current expenses during the period - calculating salaries and wages by about 1% each year, pointing to the volatility of current expenses in 2019. The table also shows that the surplus of the operations of the second phase amounted to about 10% during 2019 and then grew by about 6% during 2020 with the same percentage during 2021 and notes the reason for the fluctuation of high transfer expenses represented in the contribution to the expenses of the central unit (contribution to the Directorate of internal departments of university student housing – Thi-Qar University) by about 1% each year.

Table 8 vertical analysis of the balance sheet statement of the engineering consulting office for the period from 2019 to 2021

Account name	2019	Vertical analysis	2020	Vertical analysis	2021	Vertical analysis

Assets						
Fixed assets						
Fixed assets (at book value)	170338683	18%	151218943	14%	139588733	12%
Projects under implementation	1215000	0.10%	1975000	0.20%	1975000	0.20%
Long-term loans	0	0%	0	0%	0	0%
Total fixed assets	171553683	18%	153193943	14%	141563733	12%
Current assets						
Inventory (at cost)	0	0%	0	0%	0	0%
Loans granted	0	0%	0	0%	0	0%
Debtors	166230527	18%	169647527	16%	169647527	15%
Coins	593997252	64%	737415288	70%	847108408	73%
Total current assets	760227779	82%	907062815	86%	1016755935	88%
Total assets	931781462	100%	1060256758	100%	1158319668	100%
Sources of funding						
Sources of long-term financing						
The capital	0	0%	0	0%	0	0%
General reserve	125152398	13%	136583765	13%	145777286	13%
Accumulated surplus	0	0%	0	0%	0	0%
Accumulated deficit	0	0%	0	0%	0	0%
Total sources of long-term financing	125152398	13%	136583765	13%	145777286	13%
Short-term sources of financing						
Creditors	806629064	87%	923672993	87%	1012542382	87%
Full sources of short-term financing	806629064	87%	923672993	87%	1012542382	87%
Total funding sources	931781462	100%	1060256758	100%	1158319668	100%

Preparing the researcher based on the financial statements of the engineering consulting office during the research period

Table 8 shows the vertical analysis of the balance sheet statement of the research sample and notes a decrease in the ownership of fixed assets by about 2% each year , on the contrary, a decrease is observed in the debtors ' account by about 2% during 2020 and by about 3% during 2021, and this decrease indicates that debtors pay off the debts they have discharged during the year, and cash growth is noted by about 6% during 2020 and during 2021 cash grew by about 9% from the year of comparison 2019 , It is also noted that the increase in the assets held by the institution reached during 2019 approximately (932) million dinars , during 2020 it reached approximately (1060) billion sixty million dinars, and during 2021 it reached approximately (1158) billion one hundred and fifty-eight million, and by analyzing the aspect of liabilities and property rights, the percentage of the general reserve was fixed by 13% during the research period, because the percentage is determined according to the law of scientific and consulting services offices in higher education institutions No. 7 of 1997 article (10/2) a percentage of 10% of net profits as a reserve to counteract office expansions, with a stable percentage of creditors of total liabilities and property rights at 87% .

Vertical Analysis How to assess the financial performance of a research sample by making a comparison contributed to predicting the future growth of the enterprise's activity.

2- Horizontal analysis

Table 9 horizontal analysis of the statement of current operations of the engineering consulting office for the period from 2019 to 2021

Account name	2019	2020	2021	Horizontal analysis (annual growth rate)		
				2019	2020	2021
Current activity income	658957953	658511698	880358640		0%	34%
Accrued interest difference	0	1975000	0		∞	-100%
Transformational revenues	0	0	0		0	0

Other income	0	87313527	0		∞	-100%
Total revenue	658957953	747800225	880358640		13%	18%
Current expenses						
Salaries and wages	55173000	63722500	88660750		15%	39%
Commodity supplies	10054220	3507860	6086750		-65%	74%
Service supplies	432531824	449213938	558672851		4%	24%
Consumptions	28522240	30484740	31967210		7%	5%
Total expenses	526281284	546929038	685387561		4%	25%
Surplus of ongoing operations (first stage)	132676669	200871187	194971079		51%	-3%
Transfer expenses (except for account 384*)	65895795	84582522	103035864		28%	22%
Other expenses						
Total	65895795	84582522	103035864		28%	22%
Operational surplus (second stage)	66780874	116288665	91935215		74%	-21%

Preparing the researcher based on the financial statements of the engineering consulting office during the research period

It is noted through Table 9 horizontal analysis of the statement of current operations of the engineering consulting office that revenues have grown by 13% during 2020 from 2019 and grew by about 18% during 2021 from 2021, but looking at the surplus of the operations of the first stage, growth is observed during 2020 by about 74% and during 2021, a sharp decrease is observed by about 53% from 2020 and the reason for this decrease is the increase in current expenses, which increased by about 21% from 2020 with a steady growth rate of expenses transformational.

Table 10 horizontal analysis of the balance sheet statement of the engineering consulting office for the period from 2019 to 2021

Account name	2019	2020	2021	Horizontal analysis (annual growth rate)		
				2019	2020	2021
Assets						
Fixed assets						
Fixed assets (at book value)	170338683	151218943	139588733		-11%	-8%
Projects under implementation	1215000	1975000	1975000		63%	0%
Long-term loans	0	0	0		0	0
Total fixed assets	171553683	153193943	141563733		-11%	-8%
Current assets						
Inventory (at cost)	0	0	0		0	0
Loans granted	0	0	0		0	0
Debtors	166230527	169647527	169647527		2%	0%
Coins	593997252	737415288	847108408		24%	15%
Total current assets	760227779	907062815	1016755935		19%	12%
Total assets	931781462	1060256758	1158319668		14%	9%
Sources of funding						
Sources of long-term financing						
The capital	0	0	0		0	0
General reserve	125152398	136583765	145777286		9%	7%
Accumulated surplus	0	0	0		0	0

Accumulated deficit	0	0	0		0	0
Total sources of long-term financing	125152398	136583765	145777286		9%	7%
Short-term sources of financing						
Creditors	806629064	923672993	1012542382		15%	10%
Full sources of short-term financing	806629064	923672993	1012542382		15%	10%
Total funding sources	931781462	1060256758	1158319668		14%	9%

Preparing the researcher based on the financial statements of the engineering consulting office during the research period

Table 10 shows a decrease in fixed assets during 2020 by -11% and a decrease during 2021 by -8%, with the growth of projects under implementation by about 63% during 2020, but in 2021 the account did not achieve any growth rate, considering current assets, a growth of about 14% during 2020 and 9% during 2021, the general reserve grew by about 9% during 2020 and 7% during 2021, and an increase in debt by 15% for 2020 and 10% for 2021.

3- Trend analysis
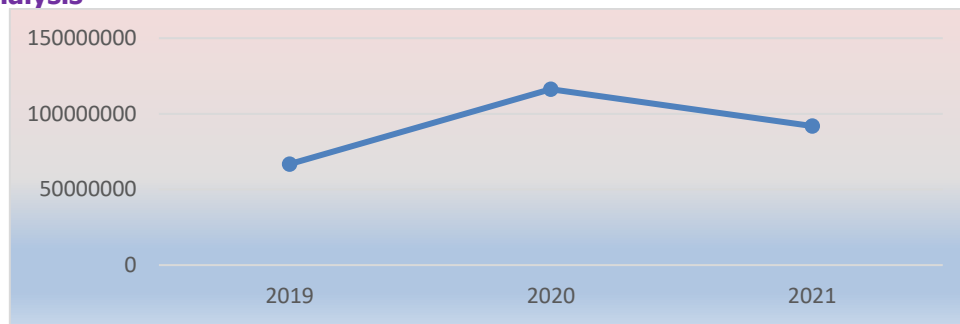
Form No. (1) trend analysis for calculating the net profit of the engineering consulting office for the period from 2019 to 2021

Preparing the researcher based on the financial statements of the engineering consulting office during the research period

Figure 1 shows this. Trend analysis for calculating the surplus of operations (revenue). In 2020, he observed the upward trend to calculate the surplus, and then the trend began to decline during 2021, so analyzing the trend gave a quick snapshot of the revenue movement during the research period.

4- Liquidity analysis:
The following ratios determine the financial analysis of liquidity, namely:
A- Current ratio:

Table 11 the current ratio of the engineering consultant office for the period from 2019 to 2021

Formula items	2019	2020	2021
Current assets	760227779	907062815	1016755935
Current liabilities	806629064	923672993	1012542382
Current ratio	94.2%	98.2%	100.4%

Preparing the researcher based on the financial statements of the engineering consulting office during the research period

It is noted from Table 11 that the current percentage for 2019 amounted to approximately 94%, which is less than 100%, therefore it is interpreted as not good due to the insufficient and the ability of current assets to meet short-term obligations, as well as in 2020 the current percentage reached almost 98%, while in 2021 the percentage reached 100.4%, which is greater than 100% and is therefore a good percentage due to the ability of current assets to meet short-term obligations.

B- Quick ratio
Table 12 Quick ratio of Engineering Consultant Office for the period from 2019 to 2021

Formula items	2019	2020	2021
Current assets	760227779	907062815	1016755935
(inventory)	0	0	0
Current assets – Quick	760227779	907062815	1016755935
Current liabilities	806629064	923672993	1012542382
Quick ratio	94.2%	98.2%	100.4%

Preparing the researcher based on the financial statements of the engineering consulting office during the research period

It is noted from Table 12 that the results of the fast ratio are equal to the results of Table 11 of the current ratio due to the lack of value of the stock and are therefore interpreted as not good during 2019 because it is less than 100%, as well as in 2020, but during 2021 it is a good ratio due to the ability of current assets to fulfill short-term obligations.

C- Cash ratio
Table 13 the cash ratio of the engineering consultant office for the period from 2019 to 2021

Formula items	2019	2020	2021
Cash	0	0	0
Cash at banks	593997252	737415288	847108408
Total cash	593997252	737415288	847108408
Current liabilities	806629064	923672993	1012542382
cash ratio	73.6%	79.8%	83.7%

Preparing the researcher based on the financial statements of the engineering consulting office during the research period

It is noted from Table 13 that the cash held by the banks owned by the research sample during 2019, which amounted to 73.6%, is in a good position as it is less than 100%, which is evidence that the institution invests cash as well during 2020 and 2021.

2- Turnover ratio analysis

The turnover ratio determines how efficiently the enterprise's resources are used. The following ratios are used to perform its analysis:

a- **Receivables turnover ratio**

Table 14 Receivables turnover ratio of the engineering consultant office for the period from 2019 to 2021

Formula items	2019	2020	2021
Revenues	658957953	747800225	880358640
Average debtors account (first term balance + last term balance) /2	166230527	167939027	169647527
Receivables turnover ratio	4.0	4.5	5.2

Preparing the researcher based on the financial statements of the engineering consulting office during the research period

According to table 14 and by comparing the results based on historical data, it is noted that the institution is in a good position in collecting its dues during the research period and that 2021 occupied the highest turnover rate of 5.2 times, and in general, the engineering consulting office enjoys a good position in collecting its dues.

b- **working capital turnover ratio**
Table 15 working capital turnover ratio of the engineering consultant office for the period from 2019 to 2021

Formula items	2019	2020	2021
Revenues	658957953	747800225	880358640

Average working capital (first term balance + last term balance) /2	-46039449	-31505732	-6198312.5
Working capital turnover ratio	-14.31	-23.74	-142.03

Preparing the researcher based on the financial statements of the engineering consulting office during the research period

It is noted from Table 15 that the working capital turnover ratio is negative during the research period as a result of the average working capital is negative due to the decrease in current assets from current liabilities, this situation may indicate inefficient use of working capital or possible liquidity problems.

c- Total asset turnover ratio

Table Total asset turnover ratio of the engineering consultant office for the period from 2019 to 2021

Formula items	2019	2020	2021
Revenues	658957953	747800225	880358640
Average total assets (first term balance + last term balance) /2	916295511	996019110	1109288213
Total asset turnover ratio	0.72	0.75	0.79

Preparing the researcher based on the financial statements of the engineering consulting office during the research period

It is noted from table 16 that the institution does not achieve sufficient revenues to cover its activity by investing in assets as it achieved a turnover ratio of total assets less than (1), as the ratio for the three years (2019, 2020, 2021) was approximately (0.72, 0.75, 0.79) times respectively. To improve the performance of the enterprise, it should either resort to increasing revenues or reducing assets, especially current assets (cash) and reinvesting them in profitable activities.

3- Profitability analysis
a- Gross profit margin
Table 17 percentage of gross profit margin of the engineering consultant office for the period from 2019 to 2021

Formula items	2021	2020	2019
(Total profit) surplus of operations first stage	194971079	113557660	132676669
Revenues	880358640	747800225	658957953
Gross profit margin ratio	22.1%	15.2%	20.1%

Preparing the researcher based on the financial statements of the engineering consulting office during the research period

It is noted in Table 17 that the gross profit margin percentage for 2020 decreased by about 5%, while it increased during 2021 by about 2% compared to the base year 2019 due to the increase in both the surplus of ongoing operations and the first stage as a result of higher revenues, which was explained during the vertical and horizontal analysis paragraph in the research.

b- Net profit margin
Table 18 Net Profit of the engineering consultant office for the period from 2019 to 2021

Formula items	2021	2020	2019
(Net profit) accumulated surplus for the second stage	91935215	116288665	66780874

Revenues	880358640	747800225	658957953
Net profit ratio	10.4%	15.6%	10.1%

Preparing the researcher based on the financial statements of the engineering consulting office during the research period

It is noted in Table 18 that the net profit percentage for 2020 increased by about 5.5%, while it decreased during 2021 by about 0.3% from the base year 2019 and decreased by about 5% from 2020 due to the decrease due to the increase in processing expenses, which caused a decrease in the surplus of ongoing operations, the second stage, which was also explained during the vertical and horizontal analysis paragraph in the research.

4- Predicting financial failure

Financial failures can be predicted by using the Althman model for non-industrial enterprises:

Z = 6.5X1 + 3.26X2 + 1.05X3 + 6.72X4

Table 19 Althman model of the engineering consultant office for the period from 2019 to 2021

	Financial indicators	2019	2020	2021
X1	Working capital / total assets	-0.050	-0.016	0.004
X2	Retained earnings and reserves / total assets	0.134	0.129	0.126
X3	Earnings before interest and taxes* / total assets	0.072	0.108	0.079
X4	Book value of debt / total liabilities (liabilities)	0.866	0.871	0.874
	Z = 6.5X1 + 3.26X2 + 1.05X3 + 6.72X4	6.007	6.286	6.392

Preparing the researcher based on the financial statements of the engineering consulting office during the research period

It is noted from Table 19, which includes the application of the Althman model for non-industrial enterprises, that the results of Z during the research period were, respectively (6.007, 6.286, 6,392) and since 2.9 > Z, the model predicts that the consulting office is not subject to bankruptcy.

It is noted through the results achieved through the application of financial analysis techniques, that financial analysis is an important tool in assessing the financial performance of enterprises by applying its selected techniques (financial indicators) to the available financial statements. Information was obtained that explains the financial performance of the research sample for previous and current periods and information through which we can expect future performance.

With regard to testing the research hypothesis (the performance of semi-governmental institutions-consulting offices can be assessed using financial analysis techniques), it has been proved by the following explanation:

The hypothesis is accepted, financial analysis techniques are used to analyze the financial statements represented in the financial statements available at the institutions and study the financial information generated from the analysis of those data using the selected techniques represented by financial ratios in order to identify the financial performance of the institution sample research.

CONCLUSIONS:

1- using the vertical analysis technique to detect the ongoing operations of the research sample, it was found that there was a growth in the surplus of the ongoing operations of the first stage during 2020 by 7% and during 2021 by 2%, with the continuous increase in total revenues during the period, but the volatility that occurred during the period was caused by an increase in current expenses / calculation of salaries and wages by about 1% each year. The surplus of the operations of the second phase has grown by about 6% during 2020, with the same percentage during 2021, and the reason for the equality is due to the increase in transfer expenses represented by the contribution to the expenses of the central unit (contribution to the Directorate of internal departments of university student housing – Thi-Qar University) by about 1% each year.

2- Using the horizontal analysis technique to reveal the balance sheet of the research sample ,there was a decrease in fixed assets during 2020 by about -11% and decreased during 2021 by about -8% with the growth of projects under implementation by about 63% during 2020 , but in 2021 the account did not achieve any growth rate, and by analyzing current assets, it was found that there was a growth of about 14% during 2020 and 9% during 2021,

and the general reserve grew by about 9% during 2020 and 7% during in 2021, and increase the debt by 15% in 2020 and 10% in 2021.

3- Using the trend analysis technique to calculate the net profit of the research sample, it turned out that the trend of surplus operations during 2020 is in a strong upward state and then the trend began to decline during 2021, so the trend analysis gave a quick snapshot of the revenue movement during the research period, Figure 1 is shown.

4- Using the liquidity analysis indicators technique by applying a set of sub-ratios, which are as follows:

A- **Current ratio**: the current ratio for 2019 was approximately 94%, which is less than 100%, therefore it is interpreted as not good due to the insufficient and ability of current assets to meet short-term obligations, but during 2021 the ratio reached 100.4%, which is greater than 100%, and therefore it is a good ratio due to the ability of current assets to meet short-term obligations.

B- **Quick ratio**: the results of the fast ratio are equal to the results of the current ratio due to the lack of amounts in the inventory account.

C- **Cash ratio:** the cash held by the banks owned by the research sample during 2019, which amounted to 73.6%, is in a good position as it is less than 100%. the decrease in cash includes two explanations, either the institution invests cash in profitable investment areas or uses it to repay its obligations to stakeholders.

5- using the technique of indicators for analyzing the turnover ratio by applying a set of sub-ratios, which are as follows:

A- **Accounts receivable turnover ratios**: according to this ratio, the institution is in a good position in collecting its dues during the research period and that 2021 occupied the highest turnover rate of 5.2 times, and in general, the engineering consulting office enjoys a good position in collecting its dues.

B- **Working capital turnover ratio:** the working capital turnover ratio was negative during the research period as a result of the average working capital being negative due to the decrease in current assets from current liabilities, this situation may indicate inefficient use of working capital or possible liquidity problems.

C- **Turnover of total assets ratio**: the institution does not achieve sufficient income to cover its activity by investing in assets as it has achieved a percentage of turnover of total assets less than (1), as the percentage for the three years (2019, 2020, 2021) was approximately (0.72, 0.75, 0.79) times in a row. To improve the performance of the enterprise, it should either resort to increasing revenues or reducing assets, especially current assets (cash) and reinvesting them in profitable activities.

6- Using the technique of profitability analysis indicators by applying a set of sub-ratios, which are as follows:

A- **Gross profit margin:** the percentage of gross profit margin for 2020 decreased by about 5%, while it increased during 2021 by about 2% from the base year 2019 due to the increase in both the surplus of ongoing operations and the first stage as a result of higher revenues, which was explained during the vertical and horizontal analysis paragraph in the research.

7- Using the technique of predicting financial failure by applying the Althman model for non-industrial enterprises, it was found that the results of Z during the research period were respectively (6.007, 6.286, 6,392) and since 2.9 > Z, the model predicts that the consulting office is not subject to bankruptcy.

RECOMMENDATIONS:

1- The engineering consulting office should follow the financial analysis in order to evaluate its financial performance by using various financial analysis techniques.

2- The consulting firm should strive to increase revenues by expanding the scope of its advisory services by adopting marketing methods for its services in order to enter competition with consulting institutions in the private sector in the market.

3- The engineering consulting office should use the results of the analysis of financial statements obtained through the use of financial analysis techniques in the process of preparing a future plan to improve its financial performance.

4- The engineering consulting office should establish an administrative unit managed by specialists in the field of Financial Analysis who apply financial analysis techniques in order to assess the current financial performance and evaluate it towards addressing weaknesses, maintaining strengths and developing them, as well as taking advantage of future investment opportunities and facing the challenges of the external environment.

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