

The Extent to Which Industrial Companies in Aqaba Apply Budgetary Estimates as A Tool for Planning and Control

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Abstract:

The research aims to study The Extent to Which Industrial Companies in Aqaba Apply Budgetary Estimates As A Tool For Planning And Control, The study utilized a descriptive-analytical methodology, where the primary data collected from the sample individuals will be described and analyzed. The study will employ appropriate statistical methods such as the mean, t-test, and standard deviation. The SPSS system was employed for data analysis, where A random sample of industrial companies was selected, and questionnaires were distributed to department heads, financial managers, cost accountants, and administrative accountants. finally, the research provided many results, such as: (a) Industrial companies' managements in Aqaba city recognize the importance of applying budgeting in the planning and control process, with a rate of 78%. The highest awareness is related to the control and regularity of cash flows, while the lowest awareness pertains to the budget as an organized means to communicate plans at all management levels. (b) Industrial companies in Aqaba city adhere to the principle of flexibility in preparing budget estimates, with a rate of 68%. The highest score is associated with considering the budget as an ongoing process that always spans 12 months. Conversely, the lowest adherence is observed in adjusting budget figures based on changing circumstances.

Keywords: Planning And Control - Industrial Companies – Aqaba.

Introduction:

Any profit-oriented institution aims to maximize its profit by providing goods or services with the required quality, and appropriate and competitive prices. To achieve this, it needs to direct and manage its activities, beginning with defining the scope and quality of these activities in light of the available resources, ultimately reaching the desired objectives with the highest possible return. This is where the role of the planning process comes in, serving as a strategic plan aimed at achieving this goal. The plan covers all aspects of the institution's activities, providing a path followed by all departments to achieve their sub-goals and ultimately reach the overall goal of the institution, taking into consideration the availability of practical and scientific experience and knowledge of the details by the planners, distinguishing between what can be implemented and what cannot, to avoid a significant gap between planning outputs and the actual reality.

Budgets are considered one of the most important financial planning methods used by any institution. Through budgets, all operations and activities carried out within the institution are regulated and controlled. This enables the management to control the execution of tasks and activities required by all departments. Budgets provide the management with performance metrics and responsibilities by comparing actual figures with the estimates contained in the budgets. They also hold those responsible accountable and guide them toward addressing shortcomings in the future.

Study Problem:

Industrial establishments in the city of Aqaba, like any other institution, seek to optimize their available resources to maximize profits. One of the key methods to achieve this is effective planning of their activities to attain the highest level of efficiency and effectiveness. Subsequently, monitoring the implementation of these activities during and after execution is crucial to mitigate deviations that may occur. The question arises: Do these companies recognize this and work on preparing and implementing budgetary allocations as a planning and control tool in a scientific manner?

Hence, this study aims to investigate the reality of budgetary allocations as a planning and control tool in these companies. This is done by attempting to answer the following questions:

1. Do the management of industrial companies in the city of Aqaba realize the importance of implementing budgetary allocations in the planning and control process?
2. Do industrial companies in the city of Aqaba adopt the inclusivity principle in preparing budgetary allocations?
3. Do industrial companies in the city of Aqaba adopt the realism principle in estimation when preparing budgetary allocations?
4. Do industrial companies in the city of Aqaba involve all levels of management in preparing budgetary allocations?

5. Do industrial companies in the city of Aqaba adopt the principle of budgetary unity?
6. Do industrial companies in the city of Aqaba adopt the principle of budgetary flexibility?

Importance of the Study:

Because industrial companies rely on limited financial resources and have multiple investment opportunities, cost control and optimal allocation must be a top priority for the management of these companies. Since budgetary allocations are one of the most important methods and tools for planning and controlling activities, and consequently, the costs associated with these activities, the substantial importance of this study becomes evident.

Furthermore, the industrial sector, characterized by its significant relative importance to the national economy, adds to the study's significance. As industrial companies operate with specific capital resources and diverse investment opportunities, regulating and directing costs optimally becomes crucial for the effective management of these companies. Therefore, the study's substantial importance lies in its potential to contribute to enhancing the efficiency and effectiveness of industrial operations, which, in turn, impacts the national economy.

Study Population:

All industrial companies in the city of Aqaba whose capital exceeds one million Jordanian Dinars.

Study Sample:

A random sample of industrial companies was selected, and questionnaires were distributed to department heads, financial managers, cost accountants, and administrative accountants.

Data Collection Methods:

Surveys were utilized as a tool to collect primary data from individuals in the study sample. These surveys were designed to cover all aspects of the study.

Study Methodology:

The study utilized a descriptive-analytical methodology, where the primary data collected from the sample individuals will be described and analyzed. The study will employ appropriate statistical methods such as the mean, t-test, and standard deviation. The SPSS system was employed for data analysis.

Budgetary Allocations as a Planning and Control Tool:

Planning involves controlling and defining project objectives, outlining and developing policies and methods to achieve these objectives (Horngren, 1999) Budgeting, as a comprehensive tool for planning, directs all available resources to serve project objectives.

This contributes to the early detection and analysis of deviations to promptly rectify them, maintaining financial and human resources, especially in times of scarcity (Mahrem & Mohamed, 2012).

In organizational planning, the identification and selection of available alternatives are crucial. Adopting alternatives that align with the institution's objectives within the available resources and utilizing necessary means to achieve those goals are essential (Al-Khalidi & Brahim, 2018) Planning success requires sufficient information and qualified individuals capable of utilizing the information for planning all activities (Fan & Huang, 2009).

As for control, it commences with budget execution and extends to its conclusion. The control process aids in implementing and comparing planned standard performance with actual performance to identify negative deviations resulting from non-compliance with established standards. Historical actual data for all departments or units representing responsibility centers must be available to assess the smooth progress of various operations (Charles, Srikant, & George, 2005).

Literature reviews

A brief overview of some previous studies related to the subject of this research reveals that there have been studies addressing the issue of budgetary allocations.

A study by (Sayam, 2009) found that Jordanian public pharmaceutical companies utilize budgets in planning, control, and decision-making. There is a conviction among administrations to use budgets in these areas.

Another study by (Iman & Bilal, 2013) indicated that most Jordanian agricultural companies do not adhere to preparing budgetary allocations, despite their potential to enhance planning functions in implementing establishments.

(Hussein & Abdul Rahman, 2013) delved into a similar topic but focused on the hospitality sector in Al-Madinah. The study revealed that 85% of these hotels prepare budgetary plans, with various factors influencing the type, basis, duration, flexibility, and participants involved.

A study by (Hasan, 2013) found that small-sized industrial companies in Australia rely on the payback period method along with discounted cash flow techniques to implement capital budgets.

Study (Cropper, 2018) concluded that satisfaction with the accuracy and predictability of budgets affects the UK universities' performance, emphasizing the impact of accurate student number estimates on budget figures.

Study Al-Rumahi's (2017) demonstrated that using planning budgets improves planning, control, and performance evaluation in public industrial companies. The study

recommended that top management recognizes the importance of planning budgets for accurate data provision and performance assessment.

Study (Abdelhakim & Kaid, 2018) revealed that Jordanian banks apply planning budgets moderately. There is a significant impact between planning, control, performance evaluation, and the rate of return on shareholders' equity.

(Shqour, Omar Fareed, & Ayman, 2018) on industrial companies listed on the Amman Stock Exchange found that these companies use budgetary allocations to a moderate extent, with a good level of efficiency in their accounting systems. The use of budgetary allocations positively affects performance improvement and accounting system efficiency.

Study (Fouad, 2021) highlighted the importance of applying target costing in developing operational planning budgets. The study stressed the need for a good cost accounting system based on historical costs and market studies, with target cost elements significantly impacting the development of operational planning budgets.

Study (Faris, 2021) revealed a positive correlation between using predictive budgets and the effectiveness of financial planning in Jordanian manufacturing companies.

Study (Abd al-Rasul & Muhammad, 2023) emphasized the importance of using budgetary allocations in planning financial needs in economic institutions. The study found that the management of the study sample is not aware of the importance of using budgetary allocations in financial needs planning.

Study (Alouti & Abdelmounaim., 2021) aimed to study the reality of sales budgeting by analyzing its deviations, identifying its causes, and taking corrective measures in Algerian economic institutions. The study found that the institution prepares a monthly sales budget based on the previous year's sales by determining the increase in its customer base and consumption volume. The institution also prepares budgets for production, supply, and human resources. However, it still lacks precise scientific methods in predicting its budget components.

Results Analysis:

Answering the Study Questions:

Question 1: To what extent are the managements of industrial companies in Aqaba aware of the importance of implementing budgetary allocations in the planning and control process?

From Table 1, it is evident that all items received mean scores greater than 3.00 and significance levels less than 0.05, indicating statistical significance. In other words, statistically, all these aspects are perceived by the management.

Paragraph 10, related to the control and regularity of cash flows, scored the highest with a grade of 4.23. The lowest score was obtained by Paragraph 2, which deals with the budget as an organized means to convey plans to all management levels, with a score of 3.60.

When these paragraphs are combined, the overall mean is 3.90, and the observed significance level is 0.00, indicating statistical significance. Thus, the managements of industrial companies in Aqaba are aware of the importance of implementing budgetary allocations in the planning and control process, with a percentage of 78%, which is a high percentage.

Table (1): Mean, Standard Deviation, t-Value, and Observed Significance Level for the Management's Perception of the Importance of Budgets in the Areas of Planning and Control.

Sign.	t value	mean	paragraph	Num.
0.00	7.58	3.71	Make planning a priority for managers	1
0.00	6.02	3.60	An organized means of communicating plans to all administrative levels	2
0.00	11.65	3.88	Integration and coordination of goals and plans of different departments	3
0.00	7.82	3.71	It is considered a measure of control over the progress of the project	4
0.00	14.52	3.96	Encourages employees to improve performance	5
0.00	17.32	4.13	Helping anticipate problems and obstacles before they occur	6
0.00	9.81	3.92	Helps in setting priorities for work	7
0.00	9.80	3.86	It leads to the objectivity of the incentive system	8
0.00	15.76	4.07	Increasing the efficiency of analyzing deviations	9
0.00	21.25	4.23	Control and regularity of cash flows	10
0.00	15.48	3.90	total	

The Second Question: - To what extent do industrial companies in Aqaba City adhere to the flexibility principle in preparing budget estimates?

From Table 2, it is evident that all items obtained mean scores greater than 3.00 and significance levels less than 0.05. This indicates statistical significance, implying that all these aspects exist statistically.

Item 14, which concerns viewing the budget as a continuous process that always includes 12 months, scored the highest with a rating of 3.52. The lowest score was obtained by Item 12, which relates to adjusting budget figures according to changing circumstances, with a score of 3.20.

The aggregated items had a mean score of 3.40 and an observed significance level of 0.00. This indicates statistical significance. Thus, industrial companies in Aqaba City adhere to the flexibility principle in preparing budget estimates, with an average percentage of 68%.

Table No. (2): Mean, Standard Deviation, t-Value, and Observed Significance Level for the Flexibility of Budgeting Area:

Sign.	t value	mean	paragraph	Num.
0.00	5.64	3.45	Budget numbers can be easily modified	11
0.00	3.62	3.26	Budget numbers are adjusted according to changing circumstances	12
0.00	5.92	3.39	When amending the government's numbers, its powers are preserved as a basis for planning and control	13
0.00	8.59	3.52	Budgeting is viewed as a continuous process that always includes 12 months	14
0.00	7.51	3.40	total	

Third Question: To what extent do industrial companies in Aqaba city rely on the principle of realism in estimation when preparing budgetary estimates?

Table No. 3 reveals that all items obtained mean scores greater than 3.00 and significance levels less than 0.05. This indicates statistical significance, meaning that all these aspects are statistically present.

Paragraph No. 19, related to relying on external data in the forecasting process, obtained a score of 4.29, which is the highest score. The lowest score was obtained by Paragraph No. 15, which relates to relying on realistic assumptions, with an average of 3.48.

When considering all the paragraphs collectively, the mean score was 4.05 with a significance level of 0.00. This indicates statistical significance. Consequently, industrial companies in Aqaba City rely on the principle of realism in preparing budgetary estimates, with a percentage of 81%, which is considered high.

Table No. (3): Mean, Standard Deviation, t-Value, and Observed Significance Level for the Realism of Budgeting Domain:

Sign.	t value	mean	paragraph	Num.
0.00	7.22	3.48	It is based on realistic assumptions	15
0.00	9.34	3.88	There are no fundamental deviations between the budget numbers and the actual numbers	16
0.00	15.75	4.12	Future variables are predicted accurately	17
0.00	14.95	4.22	The variables affecting the facility's activities are monitored	18
	18.50	4.29	In addition to internal data, external data is relied upon in the forecasting process	19
	17.39	4.27	The set goals can be implemented according to the available financial and human resources	20
0.00	21.40	4.05	total	

Fourth Question:

- To what extent do the managerial levels participate in preparing the budgetary estimates in the industrial companies in Aqaba city?

From Table No. 4, it is evident that all items obtained mean values greater than 3.00 and significance levels less than 0.05. This indicates statistical significance, meaning that all these aspects are statistically present.

Paragraph No. 21, related to the participation of all departments in translating the main objectives into sub-objectives, scored the highest with a rating of 4.53. The lowest score was achieved by Paragraph No. 22, which concerns the participation of all managerial levels in determining the necessary resources for project implementation, with an average of 4.31.

When combining the paragraphs, the mean average reached 4.44 with an observed significance level of 0.00. This signifies statistical significance. Consequently, industrial companies in Aqaba rely on involving managerial levels in preparing budgetary estimates, with a percentage of 88.8%, indicating a high level of participation.

Table No. (4): Mean, Standard Deviation, t-value, and Significance Level for the Area of Managerial Levels Participation:

Sign.	t value	mean	paragraph	Num.
0.00	31.58	4.53	All departments participate in translating the main goals into sub-goals, each according to its department	21
0.00	23.67	4.31	All administrative levels participate in identifying the resources necessary to carry out the work	22
0.00	30.82	4.47	All administrative levels participate in following up on the implementation of budgets	23
0.00	27.26	4.45	All administrative levels coordinate together to clarify their common vision in light of the general plan	24
0.00	38.38	4.44	the total	

Question Five:

To what extent do industrial companies in Aqaba adopt the principle of budgetary unity?

From Table No. 5, it is evident that all paragraphs obtained arithmetic means greater than 3.00 and significance levels less than 0.05. This indicates statistical significance, meaning that all these aspects are statistically present.

Paragraph 28, related to the availability of correlation and coordination between different lists, scored the highest with a rating of 4.52. The lowest score was achieved by Paragraph 25, which deals with the budget being a series of sub-plans, with an arithmetic mean of 4.26.

The combined paragraphs had an arithmetic mean of 4.40 and a significance level of 0.00. This implies statistical significance. Therefore, industrial companies in Aqaba adhere to the principle of budgetary unity, with a percentage of 88%, indicating a high level of adoption.

Table No. (5): Arithmetic Mean, Standard Deviation, t-Value, and Significance Level for the Budgetary Unity Domain:

Sign.	t value	mean	paragraph	Num.
0.00	17.35	4.26	The budget consists of a series of sub-plans	25
0.00	30.71	4.46	Subplans combine one overall plan	26
0.00	25.85	4.38	The sub-plans are consistent with each other	27
0.00	32.84	4.52	There is coherence and coordination between the different lists	28
0.00	32.48	4.40	the total	

Sixth Question

To what extent do industrial companies in Aqaba adopt the principle of budgetary inclusiveness?

From Table No. 6, it is evident that all paragraphs obtained arithmetic means greater than 3.00 and significance levels less than 0.05. Thus, they are statistically significant, indicating the presence of these aspects statistically.

Paragraph 29, related to covering budgets for all activities in the facility, received a score of 4.47, the highest score. The lowest score was obtained by paragraph No. 31, which deals with considering the relationship of each activity with other activities, with an arithmetic mean of 4.18.

When combined, the arithmetic mean for all paragraphs reached 4.31, with a significance level of 0.00. This signifies statistical significance, concluding that industrial companies in Aqaba rely on budgetary inclusiveness. This is supported by a high percentage of 86.2%.

Table No. 6: Arithmetic Mean, Standard Deviation, t-value, and Significance Level for the Inclusiveness Domain:

Sign.	t value	mean	paragraph	Num.
0.00	30.13	4.47	Budgets cover all activities in the facility	29
0.00	33.26	4.45	Each of the activities included in the budgets represents part of the main objectives	30
0.00	16.65	4.18	The relationship of each activity with other activities is taken into account	31
0.00	14.52	4.23	The impact of each activity on the overall goals is examined	32
0.00	32.44	4.31	the total	

Results:

1. Industrial companies' managements in Aqaba city recognize the importance of applying budgeting in the planning and control process, with a rate of 78%. The highest awareness is related to the control and regularity of cash flows, while the lowest awareness pertains to the budget as an organized means to communicate plans at all management levels.
2. Industrial companies in Aqaba city adhere to the principle of flexibility in preparing budget estimates, with a rate of 68%. The highest score is associated with considering the budget as an ongoing process that always spans 12 months. Conversely, the lowest adherence is observed in adjusting budget figures based on changing circumstances.
3. Aqaba's industrial companies rely on the principle of realism in preparing budget estimates. The highest reliance is on external data in the prediction process, while the least reliance involves realistic assumptions.
4. Aqaba's industrial companies rely on involving management levels in preparing budget estimates, with a rate of 88.8%. The highest degree of involvement is seen in all departments participating in translating main objectives into sub-objectives. The least involvement is observed in all management levels participating in determining the necessary resources for project implementation.
5. Industrial companies in Aqaba city adopt the unity of the budget principle, with a rate of 88%. The most available aspect is the correlation and coordination between different lists, while the least available is the budget being a series of sub-plans.
6. Industrial companies in Aqaba city adopt the inclusiveness principle, with a rate of 86.2%. The most prevalent aspect is budget coverage for all activities in the facility, while the least prevalent is considering the relationship of each activity with other activities.

Recommendations:

1. Work on increasing the awareness of industrial companies in Aqaba about the importance of budgets in the areas of planning and control.
2. Increase the flexibility of budget estimates, especially in adjusting budget figures based on changing circumstances.
3. Improve the realism of preparing budget estimates, particularly by enhancing the realism of the assumptions relied upon.
4. Continue involving various management levels in preparing budget estimates, with efforts to increase participation, particularly in improving less implemented aspects such as participation in determining the necessary resources for project implementation.
5. Strengthen the unity of the budget, especially regarding the budget being a series of sub-plans.
6. Do not settle for a high inclusiveness percentage and strive for continuous improvement, especially by considering the relationship of each activity with other activities.

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