The role of resource consumption accounting in achieving competitive priorities in Iraqi industrial companies

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Abstract: The research aims to demonstrate the role of resource consumption accounting in achieving the competitive priorities of cost, quality, time, innovation and flexibility and trying to apply it in the Iraqi industrial economic units, by taking advantage of resource consumption accounting as one of the most important strategic cost management techniques that provide more accurate and appropriate information about Resources and detection of idle energy that traditional cost systems are unable to provide. To achieve the goal of this research, the descriptive approach was used by designing a questionnaire as a main tool for data and information collection and distributed to workers in a group of industrial companies operating in the city of Diwaniyah. The research reached a set of conclusions, the most important of which is the existence of a positive correlation relationship and a strong and significant effect of resource consumption accounting in achieving the priorities of competitive advantage individually and collectively in the factories of the research sample.

Key words: Leadership Skills; Strategic Entrepreneurship; HR Flexibility

Introduction
Economic units are very interested in managing their resources efficiently and effectively in a way that suits the requirements of customers and their expectations in order to survive, continue and achieve superiority over their competitors. In order to reach its operational and strategic goals, including accounting for resource consumption (Hamdi, 2016:86)

Thus, economic units should strive to achieve competitive precedence. They should search for contemporary accounting systems and techniques that address the shortcomings of traditional systems and provide more accurate and appropriate information for management. Resource consumption accounting is an appropriate and essential approach for this purpose, which is based in its philosophy on the best principles that it has the German cost entrance and the activity-based cost entrance (Senan, &
Alhebri, 2020: 123). It is one of the cost management systems that aims to provide a future view of how to optimally utilize the resources of activities for the economic unit, determine idle energy and provide accurate measurement of product costs. The problem of the research is that the economic units, the research sample, use traditional accounting systems, which makes them suffer from waste and loss in their economic resources (Cao, et al., 2020: 25). Its advantages will improve the ability of the economic unit, the sample of the research, to survive, continue, preserve its resources, and achieve competitive priorities.

Research Hypotheses:
The research adopted the following main and subsidiary hypotheses:

The first main hypothesis: There is a significant correlation between resource consumption accounting and competitive precedents combined in the economic units studied. The following sub-hypothesis emerges from it:
- There is a significant correlation between resource consumption accounting and competitive priorities individually in the economic units studied

The second main hypothesis: There is a significant effect of accounting for resource consumption and competitive priorities combined in the economic units studied. From it emerges the following sub-hypothesis:
- There is a significant effect of resource consumption accounting and for each individual competitive precedence in the studied economic units.

Literature Review
First: Resource consumption accounting
Resource consumption accounting (RCA) is one of the contemporary concepts of cost accounting and management accounting, which emphasizes that managers are the primary users of information, which provides them with more appropriate information compared to traditional accounting methods (Yilmaz & ceran, 2017: 97), and there is no agreement between researchers and those interested in formulating a unified concept of consumption accounting. Some of the resources are expressed as a combination of the German concepts of cost GPK and activity-based costs (ABC), which by integrating them achieves more accurate and effective results in allocating indirect costs on cost measurement topics (Al-Qassab, 2019: 39), while others believe that they contribute in determining idle energy and not charging it to the producing units as a result of its direct dependence on the cause/ effect relationship, which contributes to providing low-cost products in competitive markets (Abdul, 2018: 43). As it is a strategic approach to cost management that achieves accurate distribution of indirect costs and provides appropriate information on the costs of unutilized energy and available resources and how to achieve optimal
utilization of them in a way that contributes to reducing costs and improving productivity (Okutmus, 2015: 89). Thus, resource consumption accounting is a comprehensive system for managing Cost aims to provide appropriate information that helps management in the process of reducing costs from a strategic dimension and the ability to achieve a competitive advantage in highly competitive markets (Al-Rawi & Hafiz, 2018:44). Based on the above, it is clear that the concept of resource consumption accounting presented by researchers and writers It shares a set of characteristics, which are:

1. Resource consumption accounting provides the appropriate information that helps the administration in the decision-making process.
2. It is based on the allocation of indirect costs according to the cause / effect relationship between resources and the quantity of resources.
3. It gives a comprehensive view of the unutilized energy and its costs and how to manage that energy and not charge it to the producing units.
4. It provides more accuracy in measuring costs as a result of taking into consideration the relationship between pools of mutual resources. And Figure (2) shows the philosophy of RCA.

From Figure (2) it is clear that resource consumption accounting is an amalgamation of the two concepts of activity-based accounting (ABC), whose philosophy is that activities cause costs, and German cost accounting (GPK), which focuses on resources and energy analysis and management.

Based on the foregoing, Resource Consumption Accounting (RCA) can be defined as (it is one of the modern cost management techniques that provides comprehensive and sufficient information that helps to plan resources properly, reduce costs and manage idle or surplus energies, which helps in improving strategic and operational decisions and providing the best ways to satisfy customers in order to achieve the competitive advantage of the economic unit). The resource consumption accounting system provides three modeling principles that help a model flow of resources that accurately reflect the flow of costs and allow managers to make rational decisions, and these principles are:

A. The causation principle: It represents the relationship between the quantitative production of the administrative objective and the quantities of inputs consumed if the output is to be achieved, (Suaad,2019:98) and it represents the first and most important modeling principle by providing rationality, logic and responsibility for the resource consumption accounting model (Shah et al, 2019:4) The flow of resources and their costs on the basis of a cause-and-effect relationship, which means eliminating random or arbitrary allocations between pools of resources.
B- The response principle: It represents the second principle in cost modeling, which ensures compliance with causality by describing the relationship between the quantity of outputs of certain resources and the input quantities of the resources required to produce them when the degree of complexity is high (Mohammed, 2019: 56)

C - Business Principle: The Resource Consumption Accounting technique applies the business principle, but in a more limited and highly disciplined way than the ABC system, where activities are included in the Resource Consumption Accounting model only when it adds important and ongoing information that managers need. In this case, the activities must include drivers based on Quantity that provides information on the energies and inputs should be consumed in a quantitative manner. (Sheybani et al, 2020: 535).

Second: Competitive Priorities:
The emergence of globalization, the openness of global markets, the liberalization of international trade, the disappearance of customs barriers and the emergence of international quality requirements have led to an increase in the intensity of competition between economic units and made competitiveness an inevitable matter and represents a major challenge and concern faced by economic units (Annarelli et al, 2019: 77). Competitiveness means “those efforts, measures, (West, et al 2019: 2)pressures and all developmental innovations in administrative, marketing and production activities practiced by economic units in order to obtain more space in the markets they are interested in” (Fella, 2015: 84). Competitiveness is generally represented in how the economic unit or the state uses the means or procedures that lead to distinguishing it from its competitors and superiority over them (Sachitra et al, 2016: 51). The researchers differed in the classification of these dimensions, and Table (1) shows the priorities of the competitive advantage, according to what was reported by some researchers.

<table>
<thead>
<tr>
<th>Researchers</th>
<th>Priorities of competitive advantage</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Buchanan &amp; Huczynski, 2014: 74)</td>
<td>Cost, quality, flexibility, delivery, creativity</td>
</tr>
<tr>
<td>(Ali &amp; Mahmood, 2015: 20)</td>
<td>Cost, quality, flexibility, reliability, innovation</td>
</tr>
<tr>
<td>(Brem &amp; Wimschneide, 2016: 32)</td>
<td>Quality, attribution, reputation, price, design,</td>
</tr>
<tr>
<td>(Chen &amp; Chang, 2017: 77)</td>
<td>Cost, quality, flexibility, time, innovation</td>
</tr>
<tr>
<td>(Annarelli et al, 2018: 19)</td>
<td>Cost, excellence, growth, alliances, quality</td>
</tr>
<tr>
<td>(Helena, 2019: 33)</td>
<td>Design, quality, flexibility, aesthetics, quality,</td>
</tr>
<tr>
<td>(Kimberly, 2019: 287)</td>
<td>Cost, distinction, flexibility, time, technology, quality,</td>
</tr>
</tbody>
</table>

Table (1) Priorities of competitive advantage according to the opinions of some researchers
With reference to Table (1), which was prepared by reviewing the literature and studies related to competitive advantage, it was found that most researchers and writers in this field have unanimously agreed on the most common priorities for competitive advantage represented in (cost, quality, flexibility, time and innovation), and that these priorities They constitute the general foundations for building competitive advantage, which any economic unit can adopt regardless of the nature of its activity, the
products or services it provides, and due to the importance of these dimensions in achieving competitive advantage, they have been adopted as independent dimensions of the variable adopted in the research (Priorities of competitive advantage).

The researcher believes that in light of the market openness and the intense global competition witnessed by the economic unit, it is necessary for the economic unit to direct its attention towards competitive priorities, as they are the important tools on which the competitive advantage depends, and to follow modern strategies, discover and apply new methods, methods, techniques and distinct ideas, and to abandon traditional methods if the unit wants Economic survival and continuity in the business world, and that the economic unit, no matter how much capabilities and capabilities it possesses, cannot maintain its competitive position in the global market if it relies on traditional methods and strategies; Therefore, it is necessary to rely on innovative administrative and accounting strategies and techniques, which are among the most important tools that contribute to achieving competitive priorities.

Search methods

The main purpose of the paper is to show the role of resource consumption accounting in achieving the competitive priorities of cost, quality, time, innovation and flexibility and trying to apply it in the Iraqi industrial economic units. The researcher relied on the descriptive approach and the analytical approach in describing the research community and sample, in addition to studying and analyzing the correlation and influence relationships between the research variables. The researcher has statistical means (frequencies and percentages, simple and multiple correlation coefficient, coefficient of determination R2, simple and multiple linear regression, F test, T test) in describing the respondents and determining the correlation and influence relationship between the research variables in order to extract results. In order to identify the validity of the scale and the stability of the questionnaire, the (Cronbach's alpha) scale was used, and the value of the coefficient of the mentioned scale was (0.857), which is a significant value at a significant level (0.05) and this result indicates the strength of the reliability of the questionnaire used (Al-Rubaie, 2016, 84).

Results and Discussions

The research hypothesis test requires identifying the variables included in the hypotheses. In order to determine the correlation between resource consumption accounting and the competitive advantage priorities in the factories investigated. This axis is devoted to verifying the possibility of accepting or rejecting the first main hypothesis and the sub-hypotheses emanating from it, as follows:

A- The correlation between resource consumption accounting and the combined precedents of competitive advantage

Table (2) presents the results of the correlation between resource consumption accounting and the combined precedents of competitive advantage in the factories surveyed.

<table>
<thead>
<tr>
<th>Priorities of competitive advantage</th>
<th>Resource consumption accounting</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.794</td>
</tr>
</tbody>
</table>

Table (2) shows that there is a significant correlation between the accounting of resource consumption and the combined precedents of competitive advantage at the level of the factories surveyed, as the total value of the correlation coefficient reached (0.794) at the level of significance (0.05), and this is evidence of the strength of the relationship between the two variables, which It indicates that the management of the examined factories whenever it seeks to apply resource consumption accounting, this leads to
achieving the priorities of competitive advantage, and this result was in agreement with the study (Yijua & Ting, 2017). Accordingly, we accept the first main hypothesis at the level of the studied factories.

B- The correlation relationship between resource consumption accounting and each of the competitive advantage priorities individually:

Table (3) presents the correlation relationship between resource consumption accounting and each of the competitive advantage precedences individually at the level of the investigated factories, as stated in the sub-hypothesis emanating from the first main hypothesis.

**Table (3): The correlation between resource consumption accounting and each of the competitive advantage priorities individually at the level of the factories surveyed**

<table>
<thead>
<tr>
<th>Priorities of competitive advantage</th>
<th>dependent variable</th>
<th>independent variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flexibility</td>
<td></td>
<td></td>
</tr>
<tr>
<td>innovation</td>
<td>0.785</td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>0.83</td>
<td></td>
</tr>
<tr>
<td>Quality</td>
<td>0.701</td>
<td></td>
</tr>
<tr>
<td>cost</td>
<td>0.802</td>
<td></td>
</tr>
<tr>
<td>resource consumption accounting</td>
<td>0.891</td>
<td></td>
</tr>
</tbody>
</table>

Table (3) shows that there is a correlation relationship between resource consumption accounting and each of the competitive advantage priorities individually at the level of the investigated factories at the level of significance (0.05), as all competitive priorities showed a strong positive correlation with resource consumption accounting, as the cost came first and with a correlation coefficient of 0.891. Then came the quality with a correlation coefficient of 0.802, and the third place was flexibility with a correlation coefficient of 0.785, while innovation came in the fourth rank with a correlation coefficient of 0.783, and the last rank was for the precedence of time with a correlation coefficient of 0.701. It has a competitive advantage.

Based on the foregoing, we accept the sub-hypothesis emanating from the first main hypothesis at the level of the factories investigated.

2- The relationship of the impact of resource consumption accounting and the priorities of competitive advantage at the level of the factories surveyed:

In order to determine the impact of green value chain activities in enhancing sustainable competitive advantage in the factories investigated, this axis is devoted to verifying the possibility of accepting or rejecting the second main hypothesis and the sub-hypothesis emanating from it, as follows:

A - The impact of resource consumption accounting on the combined precedence of competitive advantage at the level of the factories surveyed:

**Table (4) presents the results of the impact of resource consumption accounting on the combined priorities of competitive advantage at the level of the factories surveyed.**

<table>
<thead>
<tr>
<th>dependent priorities of competitive advantage</th>
<th>R2</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>B0</td>
<td>0.796</td>
<td>37.621</td>
</tr>
<tr>
<td>B1</td>
<td>0.721(*11.143)</td>
<td>4.02</td>
</tr>
</tbody>
</table>

Table (4) of the results of the regression analysis shows that there is a significant effect of resource consumption accounting on the combined precedence of competitive advantage at the level of the factories surveyed, as the calculated (F) value reached (37,621) which is higher than its tabular value.
of (4.02) at the level of significance (0.05) and the degree of Freedom (1.58) The coefficient of determination (R2) reached a value of (0.796), which means that (79.6%) of the interpretation of the differences is due to the impact of resource consumption accounting in achieving the priorities of competitive advantage, or the rest is due to random variables or variables not included in the model Regression and we find the coefficients of the values of (B) and the (T) test. It was found that the calculated (T) value of (11.143) is greater than its tabular value of (1.677) at a level of significance (0.05) and a degree of freedom (1,58), and this result agrees with A study (Helena, et.al, 2011), in which they indicated that the application of resource consumption accounting in factories contributes to achieving the objectives of competitive advantage, and thus, and based on the foregoing, the second main hypothesis is accepted at the level of the factories investigated.

B- The effect of resource consumption accounting on each of the competitive advantage priorities individually:

In order to clarify the relationships of the detailed impact of resource consumption accounting on each of the precedents of competitive advantage individually at the level of the factories investigated, and in light of the sub-hypothesis that comes from the second main hypothesis, the table (5) shows the effect of that.

**Table (5): The effect of each individual resource consumption accounting activity in enhancing sustainable competitive advantage in the factories studied.**

<table>
<thead>
<tr>
<th>dependent</th>
<th>B0</th>
<th>competitive advantage priorities</th>
<th>R2</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>resource consumption accounting</td>
<td>0.392</td>
<td>cost</td>
<td>Quality</td>
<td>Calculated</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B1</td>
<td>B2</td>
<td>B3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.522</td>
<td>0.456</td>
<td>0.422</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(*3.431)</td>
<td>(3.212)</td>
<td>(*2.912)</td>
</tr>
</tbody>
</table>

Table (5) shows that there is a significant effect of accounting for resource consumption as an independent variable in achieving the priorities of sustainable competitive advantage as dependent variables, as we find the calculated F value of (42.342) is greater than its tabular value of (2.28) at two degrees of freedom (3, 56) and at a significant level (0.05) and the value of the coefficient of determination R2 reached (0.824), which means that (82.4%) of the differences are explained by the impact of resource consumption accounting on the priorities of competitive advantage, and the rest is due to other variables that cannot be controlled or are not included in the regression model. Originally, from following up on the values of the B coefficients and their T-test, it was found that there is a significant effect for each of the priorities of the sustainable competitive advantage, and the priority sequence of this effect can be determined, which came at two degrees of freedom (3,56) and a level of significance (0.05). Through the following:

1-It is clear to us that the highest impact of resource consumption accounting in the precedence of cost, which came first in terms of impact, as the value of B1 reached (0.522), while the calculated T value amounted to (3.431), which is a significant value and greater than its tabular value of (1.677).

2-The effect of resource consumption accounting on the precedence of quality came in second place in terms of impact, as the value of B2 was (0.456), while the calculated T value was (3.212), which is a significant value and greater than its tabular value of (1.677).
3-The effect of accounting for resource consumption in the precedence of time ranked third in terms of impact, as the value of B3 reached 0.422), while the calculated T value amounted to (2.912) which is a significant value and greater than its tabular value of (1.677).

4-The impact of resource consumption accounting on the precedence of innovation ranked fourth in terms of impact, as the value of B4 reached (0.398), while the calculated T value amounted to (2.912) which is a significant value and greater than its tabular value of (1.677) at two degrees of freedom (3.56). And the level of significance (0.05).

5-The impact of resource consumption accounting on the precedence of flexibility ranked fifth in terms of impact, as the value of B5 was (0.365), while the calculated T value was (2.912) which is a significant value and greater than its tabular value of (1.677).

Based on the foregoing, the sub-hypothesis emanating from the second major hypothesis is accepted at the level of the investigated factories. Based on that, and by proving the main and subsidiary hypotheses, we find that there is a clear role for resource consumption accounting in achieving competitive priorities.

Results:
The resource consumption accounting technology aims to reduce the cost of the product, manage vacation energy, achieve the best added value for the customer, and improve the competitive position of the economic unit. The lack of sufficient interest and knowledge for the management and workers of economic units, the research sample, with contemporary administrative and cost accounting techniques and their applications, despite the academic qualifications they possess. It has been proven that there is a strong positive correlation with a moral significance between the accounting of resource consumption and the priorities of the competitive advantage combined in the factories of the research sample. - It has been proven that there is a strong positive correlation with a moral significance between the accounting of resource consumption and each of the competitive priorities individually in the factories, the research sample, and this indicates the understanding of factory administrations of the implications in the application of resource consumption accounting. The presence of a strong and significant impact of resource consumption accounting in achieving the combined priorities of competitive advantage in the factories of the research sample. This indicates the possibility of the impact of resource consumption accounting on the competitive priorities in the factories studied. The presence of a strong and significant effect of resource consumption accounting in the priorities of the competitive advantage individually in the factories investigated. And that the most influential priority was the cost, and that the least effect was the precedence of flexibility, and this is what emerged from the results of the statistical analysis.

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