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## The role of resource consumption accounting in achieving competitive advantage: A field study on the Sudanese Sugar Company

**Hamza Bushra Juma Abkar**

Associate Professor of Accounting, Department of Accounting, College of Business and Economics, Qassim University, Saudi Arabia  
h.abker@qu.edu.sa

**Maha Hassan Hamza Elnasry**

Assistant Professor of Accounting, Department of Accounting, College of Business and Economics, Qassim University, Saudi Arabia  
m.elnasry@qu.edu.sa

### Abstract

The research problem stems from the absence of a defined methodology for applying Resource Consumption Accounting (RCA) in a manner that effectively contributes to cost reduction in product manufacturing. This gap necessitated the development of a scale to measure product quality as a means to achieve competitive advantage. The study sought to address the following key questions: To what extent does the implementation of the RCA method enhance product quality and support competitive advantage? What impact does the use of RCA have on reducing financial costs and optimizing resource utilization to attain competitive advantage? The primary objectives of the research were to evaluate the effectiveness of RCA in improving product quality and to explore its role in minimizing financial costs while maximizing resource efficiency - all in pursuit of competitive advantage. The study was guided by a central hypothesis: There exists a statistically significant relationship between the application of RCA in enhancing product quality and in reducing financial costs, both contributing to the attainment of a competitive

advantage. The researcher adopted a multi-method approach, including the deductive method for hypothesis formulation, the inductive method for hypothesis testing, as well as analytical statistical, historical, and descriptive methodologies. The findings revealed that implementing the RCA system enables the production of high-quality products and enhances the firm's competitive position. The RCA system positively influenced customer perceptions regarding the company's competitive advantage. Moreover, it played a crucial role in identifying direct production costs, thereby contributing to improved product quality and competitive positioning. The study recommends leveraging administrative and marketing costs to deliver greater value to customers compared to competitors. It further advocates for the application of RCA strategic axes—such as differentiation, focus strategies, and comprehensive cost leadership—as integral tools for achieving and sustaining competitive advantage. Additionally, it emphasizes the need to increase reliance on the RCA system to support the effective use of cost management tools in reinforcing competitive positioning.

**Keywords:** Resource Consumption Accounting, Product Quality, Competitive Advantage.

## The First Topic: Research Methodology

### Introduction:

The contemporary corporate landscape is undergoing rapid and multifaceted transformations across economic, social, environmental, and technological dimensions. These dynamic shifts have compelled industrial enterprises to prioritize the production of high-quality goods while maintaining cost-efficiency. Traditional costing systems, however, have struggled to adapt to these emerging demands, leading to the generation of inaccurate and unreliable cost data. As a result, industrial organizations are increasingly required to reevaluate conventional costing practices

and explore modern technological solutions that enhance competitiveness. One such advancement is Resource Consumption Accounting (RCA), which focuses on capturing resource usage and activity-based expenses more precisely. The evolution of production processes has further emphasized the need for strategic integration among various organizational functions. This integration is reflected in the adoption of modern production philosophies, systems, and methodologies—such as automated manufacturing, Total Quality Management (TQM), and Total Productive Maintenance (TPM). These practices collectively aim to minimize waste, reduce inventory levels, and streamline industrial operations, ultimately creating value for the business. Furthermore, contemporary cost management approaches have embraced a suite of tools aligned with RCA principles. These tools support waste-free production, customer-centric value creation, and the pursuit of operational and product excellence on a global scale. Notably, modern cost accounting frameworks have incorporated lean thinking and zero-waste principles, which serve as foundational pillars for the design and implementation of flexible accounting systems. These systems are specifically tailored to meet the demands of the modern industrial environment and to provide firms with sustainable competitive advantages.

### **Research Problem:**

The core problem addressed in this study lies in the lack of a specialized and systematic approach for calculating resource consumption in a manner that effectively contributes to reducing product costs. This gap has highlighted the need to develop a framework or scale capable of assessing product quality as a key determinant in achieving competitive advantage. In the context of intensifying market competition, industrial enterprises are increasingly required to adopt modern cost management techniques as a critical component of product cost evaluation.

Accordingly, the research problem can be articulated through the following guiding questions:

1. To what extent does the application of Resource Consumption Accounting (RCA) contribute to improving product quality and thereby achieving a competitive advantage?
2. What is the impact of implementing the Resource Consumption Accounting approach on cost reduction and optimal resource utilization in pursuit of competitive advantage?

### **Significance of the Study:**

The significance of this study can be viewed from both scientific and practical perspectives:

- **Scientific Significance:** The study contributes to the academic body of knowledge by clarifying the concept of Resource Consumption Accounting (RCA) and its role in enhancing competitive advantage. It also deepens the understanding of contemporary management accounting practices and highlights their strategic importance in supporting organizational performance within increasingly competitive industrial environments.
- **Practical Significance:** On a practical level, the study offers valuable insights for industrial enterprises seeking to improve cost efficiency and resource utilization. The findings demonstrate how the implementation of RCA can lead to tangible benefits, such as reducing financial costs, optimizing resource deployment, and strengthening the firm's competitive positioning in the marketplace.

### **Study Objectives:**

This study aims to achieve the following objectives:

- To assess the applicability of the Resource Consumption Accounting (RCA) method in enhancing product quality as a means to attain a sustainable competitive advantage.

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- To explore the effectiveness of the RCA method in reducing financial costs and optimizing resource utilization in support of achieving competitive advantage within industrial organizations.

### **Study Hypothesis:**

The study proposes the following hypothesis:

There is a statistically significant relationship between the implementation of the Resource Consumption Accounting (RCA) method and both the enhancement of product quality and the reduction of financial costs, contributing to the achievement of a competitive advantage.

### **Research Methodology:**

To investigate the proposed hypothesis and achieve the study's objectives, the researcher employed a combination of methodological approaches:

- Deductive Approach: Utilized to formulate the research hypothesis and define the conceptual boundaries of the study.
- Inductive Approach: Applied to test the hypothesis by analyzing empirical data and identifying patterns and relationships.
- Historical Method: Employed to review relevant prior studies and establish the theoretical foundation of the research.
- Descriptive-Analytical Method: Implemented through a case study approach to examine the practical application of the Resource Consumption Accounting method and analyze its impact on cost reduction and product quality.

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### Study Structure:

The study is structured into the following main sections:

- First: Methodological Framework:  
This section includes the introduction, research problem, objectives, hypotheses, and a review of relevant previous studies, forming the foundation for the study's theoretical and practical dimensions.
- Section One: Resource Consumption Accounting:  
This section discusses the concept, significance, and objectives of Resource Consumption Accounting, emphasizing its relevance as a modern cost management approach.
- Section Two: Competitive Advantage:  
This section addresses the concept and key objectives of competitive advantage, outlining its strategic role in enhancing organizational performance and sustainability.
- Section Three: Data Analysis and Hypothesis Testing:  
This section presents the empirical analysis, including data collection methods, statistical tools used, and the testing of research hypotheses. It provides a detailed interpretation of the findings in relation to the study's objectives.

### The Second Topic: Review of Previous Studies

This section provides a concise overview of selected prior research that the researcher has gathered and examined. The reviewed studies explore various dimensions related to the core themes of the current research, including Resource Consumption Accounting, cost management, and competitive advantage. These studies have significantly contributed to the enrichment of the present work by

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offering theoretical insights, methodological guidance, and empirical findings that inform and support the research framework, as outlined below:

**Study: Falah (2018):**

This study investigated the influence of modern cost accounting methods on reducing product costs and enhancing competitive advantage within Iraqi companies. Specifically, the research focused on the continuous improvement method as a contemporary accounting approach and examined its potential for supporting economic units in increasing product value by lowering costs, enhancing quality, and strengthening competitiveness. The primary objective was to assess how the continuous improvement method can be utilized to provide relevant cost management information, particularly by identifying performance benchmarks established by competitors. The study's key findings revealed that the continuous improvement approach effectively supports managerial decision-making by supplying timely and competitive cost-related information. Moreover, the use of this method was shown to contribute significantly to reducing production costs, improving product quality, and fulfilling customer expectations - all of which enhance a company's ability to compete in the marketplace (Saleh, 2018, p. 14).

**Study: Muhammad Al-Qasim Muhammad Saeed & Dr. Abdul Rahman Adel Khalil (2021):**

This study sought to explore, within its theoretical framework, the concept, significance, and objectives of both Resource Consumption Accounting (RCA) and competitive advantage. In its practical dimension, the research aimed to examine the impact of implementing the RCA system on enhancing competitive advantage within Sudanese industrial institutions. The study concluded that the application of RCA tools and methodologies enables organizational management to utilize resources more efficiently. This optimal resource exploitation contributes directly to

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strengthening the institutions' competitive positions and achieving their strategic objectives. The findings underscore the value of RCA as a modern accounting approach that aligns resource management with competitive performance goals (Al-Qasim & Adel, 2021, Vol. 12, Issue 2).

**Study: Sahar Yas Al-Asadi (2024):**

This study explores the role of Resource Consumption Accounting (RCA) as both an accounting and managerial tool in enhancing the competitive advantage of economic units. The primary objective is to investigate how RCA can improve financial and operational performance, thereby strengthening the competitiveness of organizations in dynamic market environments. The research adopts an analytical methodology that combines a review of relevant literature with a case study analysis of the Dianoia Tire Factory. Data collection involved interviews with managers and accountants to assess the practical implications of RCA in supporting administrative and strategic decision-making processes. The study's key findings indicate that the implementation of RCA significantly enhances the accuracy of product cost allocation by minimizing waste and eliminating idle or unused capacity. Additionally, RCA contributes to improving product quality through precise identification of resource requirements for each production process. The research concludes that RCA functions not merely as a cost accounting tool, but as an integrated strategic approach that improves resource efficiency, increases adaptability to change, and supports superior organizational performance—ultimately leading to a sustainable competitive advantage (Al-Asadi, 2024, Vol. 14, Issue 4).

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## **The Third Topic: Overview, Historical Development, Significance, and Objectives of the Resource Consumption Accounting (RCA) Method**

In this chapter, the researcher examines the conceptual foundations, historical context, importance, and primary objectives of the Resource Consumption Accounting (RCA) method. The discussion is structured as follows:

### **Concept of the Resource Consumption Accounting (RCA) Approach:**

A comprehensive review of the accounting literature indicates the absence of a universally accepted definition for Resource Consumption Accounting (RCA). Although the volume of scholarly work addressing this concept has grown in recent years, there remains a lack of consensus regarding a standardized or unified conceptual framework. This reflects the evolving nature of RCA as an emerging discipline within the broader field of cost and management accounting.

In light of this, academics and practitioners, each emphasizing different aspects of the approach based on theoretical underpinnings and practical applications, have proposed various definitions and perspectives.

One of the widely cited definitions characterizes RCA as a next-generation cost management system that synthesizes key components from two globally recognized accounting frameworks: the German cost accounting model and Activity-Based Costing (ABC). The integration of these models aims to enhance the accuracy and relevance of operational cost data. Specifically, RCA seeks to generate precise and detailed financial insights that support cost analysis at the most granular levels of organizational activity and resource utilization (Al-Hawali, 2013, Vol. 4, Issue 1, p. 8)

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It has been defined as a managerial accounting approach that focuses on generating precise projections of future expenses and enhancing income optimization, with the aim of strengthening organizational capacity and improving competitiveness in increasingly challenging and dynamic market environments (Shanlar Dey et al., 2014, p. 5).

Resource Consumption Accounting (RCA) may also be characterized as a strategic costing approach that adopts a forward-looking orientation, aiming to optimize the utilization of an organization's assets and operational capabilities while anticipating customer needs and reinforcing competitive positioning. Moreover, it is viewed as a managerial accounting framework that prioritizes the delivery of reliable and decision-useful information, with the objective of minimizing costs, maximizing revenues, enhancing production efficiency, and improving the organization's ability to achieve its strategic goals in an intensely competitive global environment (Muhammad & Mansour, 2014, pp. 66–67).

Resource Consumption Accounting (RCA) is defined as a hybrid costing system that integrates the principles of Activity-Based Costing (ABC) with the traditional cost accounting practices employed in German organizations (Shaheen, 2014, p. 246).

Another definition describes Resource Consumption Accounting as a strategic costing methodology that merges marginal costing principles inherent in the German cost accounting system with the operational mechanisms of Activity-Based Costing (ABC), all within a cohesive and integrated performance management framework (Ali, 2013, p. 263).

(Muhammad and Mansour (2014, pp. 67–68) define Resource Consumption Accounting as a cost allocation and management approach that emphasizes grouping related cost elements into cohesive cost pools, while excluding the costs associated with unused capacity. This method focuses on clearly mapping the relationships

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between activities, the resources they consume, and their interdependencies, with the aim of producing more accurate and relevant financial and operational information to support effective decision-making within the economic unit.

(Ahmed and Moosa A.M. (2011, p. 755) describe Resource Consumption Accounting as a comprehensive cost management system that equips organizations with reliable and accurate information, facilitating informed decision-making aimed at reducing costs and enhancing operational productivity. This, in turn, supports the organization's pursuit of sustainable success within a highly competitive market environment.

### **The Emergence of the Resource Consumption Accounting Approach:**

Traditional accounting practices increasingly proved inadequate in meeting the evolving informational needs of management, particularly in complex and competitive business environments. In response to these limitations, German cost accounting developed a new methodology for analyzing costs, known as Resource Consumption Accounting (RCA). RCA emerged as a fundamental advancement in management accounting, offering a more precise and structured approach to delivering relevant cost and operational information. Its primary objective is to support managerial decision-making by providing data that enhances value creation across the organization (Al-Samani, 2016, p. 24).

Resource Consumption Accounting (RCA) emerged as a modern evaluative framework for cost systems, aiming to achieve strategic advantages by delivering relevant and timely information that supports flexible and responsive managerial decision-making. One of its distinguishing features is the adaptability of system components, which allows for ongoing development and modification. RCA also promotes the use of quantitative measures to enhance objectivity in performance evaluation and cost analysis (Samir, 2010, p. 269).

The conceptual foundation of RCA lies in the pursuit of an integrated cost management approach that leverages both innovative techniques and established methodologies. Central to this evolution is the influence of the German cost accounting model—one of the most prominent management accounting systems adopted across European Union countries. This model emphasizes the tracking and management of consumed resources within organizations. RCA attempts to synthesize this resource-based orientation with the principles of Activity-Based Costing (ABC), which concentrates on operations and activities. The result is a unified framework designed to enhance managerial decision-making and optimize the use of Enterprise Resource Planning (ERP) systems through their capabilities in data preservation, monitoring, and retrieval (Shaheen, 2010, p. 239).

The Resource Consumption Accounting (RCA) approach emerged in the early 2000s as a result of integrating two major costing systems: the German cost accounting system (GPK) and the Activity-Based Costing system (ABC). The evolution of the German cost accounting model was largely driven by the limitations of traditional financial accounting in meeting managerial information needs, particularly as highlighted in government reports. In the aftermath of World War II, the German system underwent significant refinement by economist Erich Plait, who developed a model known as Grenzplankostenrechnung (GPK)—translated into English as the "flexible standard costing system." This model, characterized by its focus on variable and direct costing, was designed to help organizations better understand cost behavior and its implications for managerial decision-making.

GPK became particularly prominent among German firms due to its emphasis on linking cost data to operational decisions. Later, RCA was introduced as a more comprehensive cost management tool that combined GPK's resource-focused orientation with the process-based structure of ABC. Sherman subsequently proposed RCA as an advanced alternative to the ABC model, aiming to address its

limitations and enhance managerial relevance. Today, RCA remains actively applied in various German enterprises (Jassim, 2016, p. 47).

The formal emergence of the Resource Consumption Accounting (RCA) approach is often attributed to a series of influential articles published by Keys and van der Merwe in 2001. These publications laid the conceptual foundation for RCA as an advanced cost management methodology developed in the United States, though its theoretical roots are firmly grounded in the German cost accounting tradition. RCA is designed to complement, rather than replace, the Activity-Based Costing (ABC) system, by addressing some of its limitations and enhancing its operational relevance.

By 2002, the initial implementation of RCA had begun to take shape, marking its evolution as one of the significant modern developments in the field of management accounting. The primary objective of RCA is to provide strategic, decision-relevant information that enables organizations to optimize their use of available resources and ultimately enhance organizational value creation (Abdul-Daim, 2014, vol. 2, no. 2).

Cost allocation methods can be positioned along a continuum of complexity and precision, with Resource Consumption Accounting (RCA) representing one of the most advanced approaches situated at the upper end of this spectrum. RCA distinguishes itself by its ability to accurately identify and measure the costs associated with unused capacity, offering a more refined analysis of resource utilization (IFAC, 2009, pp. 22–23).

### **Objectives of the Resource Consumption Accounting Approach:**

The fundamental objective of the Resource Consumption Accounting (RCA) approach is to optimize the utilization of an organization's available resources in a manner that enhances operational efficiency, reduces product costs, and generates

greater added value for customers. This, in turn, contributes to strengthening the organization's competitive position in the market.

According to Qutb (2009, issue 4, p. 334), RCA aims to achieve the following key goals:

- **Examine the Influence of Cost Characteristics on Resource Consumption:** This objective focuses on analyzing how the inherent nature of different cost types particularly fixed and variable costs—affects resource consumption patterns. It involves assessing the behavioral attributes of these costs in relation to resource utilization.
- **Deliver Foundational Resource Information:** This includes identifying the organization's available resources, clarifying the interrelationships among those resources, establishing the connection between resources and activities, and determining the cost associated with each resource. The goal is to ensure optimal utilization of organizational resources in a manner that supports informed managerial decision-making.
- **Monitor and Control Resource Utilization:** This entails the continuous tracking of both used and unused resource quantities to detect inefficiencies. The process involves identifying idle capacity, operational constraints, and production bottlenecks that could hinder performance and resource efficiency.
- **Identify Cost Reduction Trends in Resource Utilization:** This objective emphasizes the analysis of cost-saving opportunities by focusing on the efficient use of resources that directly contribute to customer value and revenue generation. It involves prioritizing value-adding activities and eliminating or minimizing the consumption of non-essential resources (Naji, 2013, pp. 49–50).

The Resource Consumption Accounting (RCA) approach also seeks to evaluate the degree of progress made toward reducing the costs associated with both used and unused resources. This objective is driven by the need to rationalize energy-related

expenditures and enhance the added value delivered to the customer (Abu Shaisha, 2013, pp. 49–50).

In addition to emphasizing the capacity of resources to generate added value for the customer—whether through the optimal utilization of reciprocal and non-reciprocal relationships among resources and between resources and activities—the Resource Consumption Accounting (RCA) approach also pursues a set of additional objectives. These objectives are designed to enhance the efficiency and effectiveness of resource use within the organization (Abdul-Daim, 2014, p. 240).

- Providing a Holistic View of Organizational Resources: To offer a comprehensive perspective on the organization’s available resources, including their associated costs, interdependencies, and optimal utilization strategies, thereby enhancing overall operational efficiency.
- Evaluating Progress toward Cost Reduction Goals: To assess the degree to which the organization has achieved its goals related to minimizing the costs of both used and unused resources. This includes activating idle capacity, increasing the utilization of available capacity, rationalizing resource-related expenditures, and ultimately enhancing customer value.
- Applying the Principle of Causality in Cost Allocation: To ensure that resource costs are allocated to products based on the causal relationships between activities and resource consumption. This enhances the accuracy and objectivity of product cost calculations.

According to Ali (2016, pp. 169–170), the primary objectives of the Resource Consumption Accounting (RCA) approach also include the following:

- Enhancing Focus on Resource Interrelationships: To increase managerial awareness of the interdependencies among the various resources within the economic unit, thereby facilitating a more accurate and informed analysis of these relationships.

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- Improving Operational Planning: To support the development of more effective operational plans aimed at addressing the limitations inherent in traditional budgeting methods and contributing to the formulation of practical, data-driven solutions.

Some scholars argue that the fundamental objective of Resource Consumption Accounting (RCA) lies in maximizing the efficient utilization of an organization's available resources. This, in turn, contributes to lowering production costs while simultaneously meeting customer expectations and enhancing value delivery (Abu Shaisha, 2013, p. 86).

One study affirmed that the primary aim of the Resource Consumption Accounting (RCA) approach is to identify cost reduction trends in targeted resources by concentrating on those that contribute directly to customer value creation and revenue generation (Abdul Halim, 2014, p. 90).

### **The Importance of the Resource Consumption Accounting Approach:**

The implementation of the Resource Consumption Accounting (RCA) system is grounded in a comprehensive understanding of cost structures, emphasizing a detailed examination of resources and their integration with resource planning systems. This facilitates alignment with other management accounting frameworks and enhances decision-making accuracy.

According to (Omar 2016, p. 34), the importance of the RCA approach lies in its ability to:

- Provision of Decision-Relevant Operational Information: RCA aims to deliver more relevant and actionable information concerning operational processes. It also identifies resources that may act as constraints or bottlenecks during production audits, thereby supporting more effective process evaluation and improvement.

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- Accurate Representation of Cost Behavior: The approach offers a precise reflection of cost fluctuations at the point of resource consumption, enabling a more realistic and dynamic understanding of cost behavior within the production environment.
  - Enhancing Organizational Competitiveness and Stakeholder Alignment: The Resource Consumption Accounting (RCA) approach contributes to evaluating an organization's competitive standing by identifying the interests of key stakeholders such as suppliers, managers, and bondholders. In doing so, it supports the principles of corporate governance by ensuring that decision-making processes account for the concerns and expectations of these parties (Khattab, 2010, p. 13).

The significance of the Resource Consumption Accounting (RCA) approach is further underscored by its emphasis on a comprehensive understanding of resources, including their interrelationships, modes of consumption, and the utilization of resource outputs. This perspective facilitates the generation of detailed and accurate operational cost information. Moreover, RCA explains cost behavior based on the principle of causality and is distinguished by its ability to highlight the costs associated with unused or idle capacity that has not been effectively utilized (Al-Nafeh, 2017, p. 265).

The importance of Resource Consumption Accounting (RCA) also lies in its ability to distinguish between different types of costs allocated to and traced within cost pools. It classifies costs into primary costs, which originate directly within a given cost pool and are therefore subject to monitoring and control by the individual responsible for that pool, and secondary costs, which are incurred by a cost pool as a result of services or benefits received from other resource pools. In the case of secondary costs, managerial control is generally limited and primarily focused on the volume of resources utilized (Shaheen, n.d., p. 436).

Resource Consumption Accounting (RCA) supports managerial decision-making by offering predictive insights that integrate the facility's consumption drivers with anticipated input prices. This is achieved through the use of simulation models that allow for independent adjustments in input prices without relying solely on improvements in efficiency. Moreover, RCA distinguishes between fixed and variable operating costs, enabling managers to assess the impact of cost changes on overall expenditure levels. This facilitates more informed administrative decisions and offers a fairer and more effective performance measurement framework. As such, RCA serves as a crucial link between cost accounting systems and the organization's resource planning systems (Al-Rubaie, 2016, pp. 50–51).

Another important aspect of the Resource Consumption Accounting (RCA) approach is its role in facilitating a shift from a static to a dynamic perspective on resource consumption. This transition enables organizations to optimize profitability over a given period by allowing for more responsive and flexible management of resources in line with changing operational conditions (Muhammad, 2010, pp. 288–289).

Management accounting plays a critical role in delivering financial information to senior management, particularly through the monitoring and control of operating costs. The accuracy and relevance of financial information produced by management accounting significantly influence organizational performance and overall business success, which is closely tied to profitability. However, the rapidly evolving economic landscape has introduced shifts in production practices and corporate philosophy, driven largely by technological advancement and heightened market competition. As companies increasingly adopt capital-intensive production models, there has been a relative decline in labor intensity and overhead costs, alongside a notable rise in administrative expenses associated with production processes. In this context, traditional costing methods have proven inadequate in delivering precise cost calculations. This has highlighted the need for the adoption of modern and

innovative costing techniques that better align with current operational realities. Innovation now permeates all functional areas of business—including production, management, finance, and research and development—making the implementation of advanced costing approaches more crucial than ever (Buralceran, 2017, vol. 12, no. 2, pp. 131–140).

The Resource Consumption Accounting (RCA) approach has introduced a set of innovative concepts aimed at addressing eight key limitations associated with traditional views of resource utilization. These contributions can be summarized as follows (Al-Gharuri, 2010, pp. 360–361):

- Standardized Measurement of Resource Output: RCA offers a consistent and appropriate metric for assessing resource capacity by establishing uniform measures of resource output.
- Recognition of Interrelationships among Resource Components: The approach captures the interdependencies between various resource elements by grouping them into homogeneous resource pools, thereby enhancing cost traceability and managerial insight.
- Accurate Reflection of Primary Cost Characteristics: RCA consistently represents the intrinsic nature of primary costs and resource output rates, enabling a more precise depiction of process cost structures.
- Effective Management of Capacity Variations: It enables the accurate tracking of short- and medium-term fluctuations in capacity utilization. RCA also identifies idle or excess capacity variances, thus equipping management with the necessary information to make timely and informed decisions.
- The Resource Consumption Accounting (RCA) approach also enhances the accuracy of cost: information by clearly articulating the interrelationships between resources. It achieves this by reflecting causal relationships through the

quantities of resource outputs, thereby improving the precision of cost allocations and resource planning (Abdul Hadi, 2014, p. 761).

- Dynamic Representation of Secondary Cost Behavior: The RCA model captures temporal changes in the cost behavior of secondary cost elements, incorporating both time and quantity dimensions within a unified framework.
- Comprehensive Resource Costing: RCA facilitates the calculation of fully absorbed resource costs, thereby enhancing the accuracy of product cost measurement and supporting informed outsourcing and make-or-buy decisions.
- Alignment of Cost Information with Strategic Objectives: The approach establishes a clear linkage between the nature of costs, organizational timeframes, and strategic goals. This alignment enables decision-makers to respond effectively to diverse operational, tactical, and strategic demands using a unified and consistent information base.

## **The Fourth Topic: The Concept, Objectives, Importance, and Characteristics of Competitive Advantage**

This section explores the foundational dimensions of competitive advantage. It begins by examining the conceptual framework of competitive advantage, followed by an analysis of its objectives, significance, and defining features. Through this discussion, the researcher aims to establish a theoretical understanding of how competitive advantage is formed, sustained, and leveraged within organizational contexts.

### **The Concept of Competitive Advantage:**

Competitive advantage refers to an organization's ability to achieve superior performance relative to its competitors by offering greater value to customers, either through lower prices or by providing differentiated products and services that justify

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higher prices. It is a strategic positioning that enables a firm to outperform rivals and maintain a favorable market position over time.

The concept of competitive advantage has become a central pillar in shaping economic strategies across both macroeconomic and microeconomic levels in developed nations. Emerging in the mid-1970s, it began to replace the traditional notion of comparative advantage as the guiding framework for achieving sustainable economic performance. The primary challenge for both managers and economists has since been the transformation of comparative advantages—typically derived from factor endowments—into dynamic, innovation-driven competitive advantages. While there is broad consensus in the international trade literature regarding the definition and implications of comparative advantage, significant divergence exists in the interpretation and application of competitive advantage (Abu Hahl, 2006, p. 11).

The concept of competitive advantage has been defined in multiple ways across the literature. One definition describes it as an organization's capacity to operate in one or more areas in ways that existing or potential competitors are unable to imitate (Alwan, 2009, p. 97).

Competitive advantage has also been described as an organization's ability to achieve superior performance in one or more areas, coupled with the difficulty competitors face in replicating this performance in the present context (Abdul Rahman and Hariz, 2007, p. 111).

Another definition of competitive advantage emphasizes the relative superiority an organization holds in terms of price, quality, design, promotion, distribution, and delivery speed—factors that enable it to expand its market share at the expense of competitors (Al-Ziyadat and Al-Nusour, 2007, p. 100). Competitive advantage is also defined as "the set of skills, technology, resources, and capabilities that management

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can coordinate and invest to achieve two basic objectives (Abdul Rahman, 2008, p. 42):

Competitive advantage can be viewed through two essential dimensions: first, the organization's ability to deliver greater value and benefits to customers compared to its competitors; and second, its capacity to establish a clear distinction and differentiation from other market players. In this context, Haman (2006, p. 653) defines competitive advantage as the specific area of specialization through which an organization provides added value that either exceeds or differs from what competitors offer. This may involve delivering a superior set of benefits or offering similar benefits at a lower cost.

Competitive advantage has also been described as the competitive struggle among producers who offer similar or identical products within the marketplace (Abdul Rahman and Hariz, 2007, p. 139).

Competitive advantage is defined as "the spirit of commerce, and indeed the touchstone of economic freedom for individuals and groups. Just as it exists between merchants and producers in trade, industry, and other areas of independence, such as agriculture and others, it can also exist between peoples and nations. On the one hand, it is considered natural, as it creates methods that lead to economic progress and the abundance and diversity of production. On the other hand, it is essential for the advancement of production in its various fields." (Najwa, 2008, p. 7)

Competitive advantage is also defined as "a means of discovering the optimal market structure, the goal of which is to maximize consumer welfare, such that each supplier of a product seeks to maximize the difference between the value perceived by customers of the product offered and the cost of integration (production and use)" (Samia, 2007, p. 59)

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### Objectives of Competitive Advantage:

Competitive advantage seeks to fulfil a range of strategic objectives that enhance an organisation's market position and long-term performance. According to Juma (2017, pp. 57–58), these objectives include:

1. Analysing Sources of Cost Advantage across different operational areas to determine the factors contributing to cost and expense disparities among competing firms.
2. Identifying Opportunities for Cost Efficiency, which can strengthen a firm's competitive position by reducing unnecessary expenditures.
3. Assessing the Strategic Significance of Competitive Advantage, recognising it as a core objective in the formulation of any business strategy.
4. Understanding the Role of Barriers to Imitation and Replication, and how these constraints contribute to sustaining a firm's competitive advantage over time.
5. Examining the Mechanisms that Support or Erode Competitive Advantage, in order to reinforce and protect it in dynamic market conditions.
6. Exploring Opportunities for Differentiation, through analyzing the firm's capacity to offer a diverse range of products and services that are not easily matched by competitors—thereby driving greater demand for unique offerings.

### Types of Competitive Advantage:

#### 1. Cost-Based Competitiveness:

An organization can achieve a cost-based competitive advantage when the total accumulated costs associated with its value-generating activities are lower than those of its competitors. This advantage is typically realized through the effective monitoring and management of cost drivers. When a firm exercises

greater control over these drivers relative to its competitors, it gains a significant cost advantage. Moreover, this type of competitiveness is not limited to firms alone; entire countries can also benefit from a cost advantage if their production factor costs—such as labor, capital, and raw materials—are lower compared to those in other nations.

- A-Differentiation-Based Competitiveness: Differentiation competitiveness arises when an organization sets itself apart from competitors by offering unique features or attributes that appeal to customers. Often referred to as *product competitiveness*, this type of advantage reflects the organization's ability to deliver products or services that are perceived by consumers as superior, distinctive, or of higher value compared to those offered by rival firms. This perceived uniqueness enhances customer preference and loyalty, thereby strengthening the organization's position in the market.
- B-Non-Price Competitiveness: Non-price competitiveness refers to the set of factors unrelated to price or technical performance that contribute to an organization's or nation's competitive position. These factors may include geographical location, climate, and socio-cultural elements such as customs and traditions, all of which can influence consumer preferences and market dynamics (Al-Jawazain, 2013, pp. 43–44).
- C-Technical Competitiveness: Technical competitiveness refers to the ability of firms—particularly those operating in high-tech industries—to compete based on the quality and sophistication of their technological outputs. This form of competitiveness emphasizes innovation, advanced production capabilities, and technological excellence. According to the Global Competitiveness Report issued by the World Economic Forum, a distinction is made between situational competitiveness—which is linked

to trade dynamics and assessed through indicators such as business climate, institutional operations, strategic orientation, cost efficiency, and market share—and sustainable competitiveness, which is measured through factors such as technological innovation, human and intellectual capital, learning capacity, productivity, research and development infrastructure, creativity, institutional quality, and market dynamics (Eisawi, 2010, p. 93).

## 2. Competing With Quality:

Quality is achieved when the product produces a design, implementation and presentation of a service or commodity that satisfies the needs and expectations of the customer, even those that he has not disclosed. Therefore, competitors in many distinguished companies offer their minds to imagine what the customer they have studied well could dream or think about and what could make him more satisfied in using the product or benefiting from the service. Quality is undoubtedly a competitive weapon and many customers will not mind paying more to receive higher quality products or products that are more in line with their expectations (Kafi, 2012, p. 199).

### Characteristics of Competitive Advantage:

Large organizations focus primarily on the sustainability and permanence of their competitive advantage. An advantage ends once competitors are able to avoid it or imitate what it is based on. If an organization wants to maintain its competitive advantage by making it more sustainable, it must adopt strategies that make the process of imitating the competitive advantage it has built extremely difficult and costly for competitors. The characteristics and attributes of a competitive advantage can be summarized as follows (Omar, 2013, p. 132):

1. It is relative, meaning it is achieved in comparison with competitors, not absolute.

2. It leads to an organization's superiority and advantage over its competitors.
3. It originates from within the organization and creates value for it.
4. It is reflected in the organization's efficiency in performing its activities, the value it offers to buyers, or both.
5. It must play a role in influencing buyers and making them perceive the superiority of the organization's products (goods and services) and motivating them to purchase from it.
6. It is derived from customer desires and needs (Kafi, p. 203).

## **Fifth Topic: Data Analysis and Hypothesis Testing**

### **Introduction:**

This section outlines the procedures undertaken during the field study, the statistical methods applied, and the analysis of both demographic (personal) and primary data. It also presents the process of hypothesis testing, which aims to validate the relationships proposed in the study.

### **Field Research Procedures:**

The field research procedures detail the steps followed in planning and implementing the empirical component of the study. This includes the design of the research questionnaire, the identification of the study population and sampling method, and the evaluation of the measurement instrument through tests of face validity and internal consistency. Additionally, this section outlines the statistical techniques employed in the data analysis, as described below.

#### **1. Designing the Research Instrument:**

To collect the primary data required for this study, the researcher developed a structured questionnaire aimed at examining the existence of a statistically

significant relationship between the application of the Resource Consumption Accounting (RCA) method and improvements in product quality, cost reduction, and the achievement of competitive advantage—specifically in the context of the Sudanese Sugar Company. The questionnaire, a widely used tool in field research, enables the efficient collection of data from multiple respondents within the research sample, facilitating the analysis required to draw meaningful conclusions.

The development of the research instrument followed a systematic process, as outlined below:

- A. Review of Relevant Literature: The Researcher Conducted an Extensive Review of academic literature and previous studies addressing the relationship between the implementation of resource consumption accounting and its impact on product quality enhancement, cost reduction, and competitive advantage.
- B. Expert Validation and Peer Review: The Preliminary Version of the Questionnaire was submitted to the research supervisor for initial feedback. Additionally, the researcher consulted a panel of subject-matter experts, who served as academic referees. Their insights were used to assess the relevance, clarity, and alignment of questionnaire items with the research hypotheses, and to ensure content validity based on their observations and professional judgment.

Table (1): Distribution of questionnaire hypotheses (Source: Prepared by the researchers from survey data 2025)

The number	hypothesis	Number of phrases
1	There is a statistically significant relationship between the application of resource consumption accounting method in improving product quality and reducing financial costs to achieve competitive advantage.	10
	the total	10

The research sample members were asked to indicate their responses to each statement's description, using a five-point Likert scale (strongly agree, agree, neutral, disagree, strongly disagree). These statements were distributed across the research hypotheses. The respondents' responses were coded to facilitate their entry into a computer for statistical analysis, as follows:

Table (2): Representation of descriptive variables as numerical variables

phrase	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Number	5	4	3	2	1

The Scale Used in the Research Was Corrected as Follows:

- The total score for the scale is the sum of the individual scores on the statements  $((5 + 4 + 3 + 2 + 1))/5 = 3$ .

The weighted means for these means are shown in Table (3), which shows the weights and weighted means for the sample members' answer choices.

Table (3): Weight and Weighted Mean for the Research Scale

phrase	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
the weight	5	4	3	2	1
weighted average	5-4.20	4.19-3.4	3.39-2.6	2.59-1.8	1.79-1

## 2. Study Population and Sample:

The study population consists of employees of Sudanese Sugar Company. Due to the difficulty of using a comprehensive survey method to collect data due to considerations of time, effort, and cost, a sample method was adopted. The sample was selected from the study population described in the previous paragraph using a random sampling method. This is a probability sample, allowing equal opportunities for selection among the components of the study population. (140) questionnaires were distributed to the study population, and (129) questionnaires were returned, with a recovery rate of (92) %. The following are the following:

### 3. Statistical Methods Used in the Research:

The following statistical methods were used to analyze the field research data:

- (1) Descriptive Statistical Methods: Descriptive statistical methods were generally used to obtain general decisions about the characteristics and features of the research population's composition and distribution. The methods included frequency distribution of the responses of the research units.
- (2) Arithmetic Mean: The arithmetic mean scale was used to reflect the average responses to the research questions, with a weight of 5 assigned to "strongly agree," a weight of 4 to "agree," a weight of 3 to "neutral," a weight of 2 to "disagree," and a weight of 1 to "strongly disagree" (3). Standard Deviation: It was used to measure the homogeneity of the responses of the research units and to measure the relative importance of the questionnaire's axes.
- (3) Using the Chi-Square Test. This Test Was Used to test the statistical significance of the research hypotheses at a significance level of 5%. This means that if the statistical significance value associated with the calculated chi-square value is less than 5%, the null hypothesis is rejected and the alternative hypothesis (the research hypothesis) is valid. However, if the statistical significance value associated with the chi-square value is greater than 5%, this means the null hypothesis is accepted, and therefore the alternative hypothesis (the research hypothesis) is invalid.
- (4) Regression analysis: This test was used to test the effect of each independent variable on the dependent variable to test the research hypotheses. The t-value was used, as the decision rule was to accept the alternative hypothesis when the calculated t-value is greater than the tabular t-value, or the statistical significance value associated with the calculated t-value is less than 0.05.

## Frequency Distribution of Search Terms

**Study Hypothesis:** There is a statistically significant relationship between the application of resource consumption accounting in improving product quality and reducing financial costs to achieve a competitive advantage.

Table (4): Frequency and Percentage of each phrase (Source: Prepared by the researchers from survey data 2025)

phrase	Strongly agree		Agree		Neutral		Disagree		Strongly disagree	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
1- Resource consumption accounting system provides customers with high quality products and achieves competitive advantage.	50	%44.3	52	%46.0	10	%8.8	1	%0.9	0	%0
2- Applying research and development increases the company's ability to possess and build multiple capabilities and methods to achieve competitive advantage.	26	%23	77	%68.2	10	%8.8	0	%0	0	%0
3-Using administrative and marketing costs contributes to producing higher values and benefits for the company's customers than competitors, achieving a competitive advantage.	34	%30.1	55	%48.7	24	%21.2	0	%0	0	%0
4- The resource consumption accounting system helps determine the direct costs of production and achieve a competitive advantage.	49	%43.3	62	%54.9	0	%0	2	%1.8	0	%0
5- The resource consumption accounting system contributes to improving product quality to achieve a competitive advantage.	60	%53.1	39	%34.5	9	%8	5	%4.4	0	%0
6- The resource consumption accounting system relies on a strategy of differentiation, focus, or comprehensive cost leadership to achieve competitive advantage.	49	%43.4	50	%44.2	14	%12.4	0	%0	0	%0
7- The resource consumption accounting system contributes to employing cost management tools to achieve competitive advantage.	60	%53.1	13	%11.5	36	%31.9	4	%3.5	0	%0
8- The resource consumption accounting system analyzes resources to create competitive cost advantages to achieve competitive advantage.	88	%77.8	3	%2.7	15	%13.3	7	%6.2	0	%0
9- The resource consumption accounting system helps in disclosing idle capacity to achieve competitive advantage.	71	%75	27	%14.6	15	%10.4	0	%0	0	%0
10- Implementing a resource consumption accounting system influences customers and makes them aware of the company's superiority in achieving a competitive advantage.	80	%70.8	26	%18.1	5	%9.7	2	%1.4	0	%0

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**From Table (4):**

1. The percentage of those who agreed and strongly agreed with the first statement was (90.3%), while the percentage of those who disagreed and strongly disagreed was (0.9%). The percentage of sample members who did not provide specific answers was (8.8%).
2. The percentage of those who agreed and strongly agreed with the second statement was (91.2%), while the percentage of those who disagreed and strongly disagreed was (0%). The percentage of sample members who did not provide specific answers was (8.8%).
3. The percentage of those who agreed and strongly agreed with the third statement was (78.8%), while the percentage of those who disagreed and strongly disagreed was (0%). The percentage of sample members who did not provide specific answers was (21.2%).
4. The percentage of those who agreed and strongly agreed with the fourth statement was (98.2%), while the percentage of those who disagreed and strongly disagreed was (10.8%). The percentage of sample members who did not provide specific answers was (0%).
5. The percentage of those who agreed and strongly agreed with the fifth statement was 87.6%, while those who disagreed and strongly disagreed were 4.4%. The percentage of sample members who gave specific answers was 8%.
5. The percentage of those who agreed and strongly agreed with the sixth statement was 87.6%, while those who disagreed and strongly disagreed were 0%. The percentage of sample members who did not give specific answers was 12.4%.
6. The percentage of those who agreed and strongly agreed with the seventh statement was 64.6%, while those who disagreed and strongly disagreed were

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- 3.5%. The percentage of sample members who did not give specific answers was 31.9%.
7. The percentage of those who agreed and strongly agreed with the eighth statement was 80.5%, while those who disagreed and strongly disagreed were 6.2%. The percentage of sample members who did not give specific answers was 13.3%.
8. The percentage of those who agreed and strongly agreed with the ninth statement was (89.6%), while the percentage of those who disagreed and strongly disagreed was (0%). The percentage of sample members who did not provide specific answers was (10.4%).
9. The percentage of those who agreed and strongly agreed with the tenth statement was (88.9%), while the percentage of those who disagreed and strongly disagreed was (1.4%). The percentage of sample members who did not provide specific answers was (9.7%).

**Study Hypothesis:** There is a statistically significant relationship between the application of resource consumption accounting in improving product quality and reducing financial costs to achieve a competitive advantage.

Table (5): One Sample Test of the study sample members' responses to the hypothesis (Source: Prepared by the researchers from survey data 2025)

Phrase	Standard Deviation	Degrees of Freedom	Moral	Relative Importance	Result
1- Resource consumption accounting system provides customers with high quality products and achieves competitive advantage.	23.92	129	0.000	%91.7	Statistically significant
2- Applying research and development increases the company's ability to possess and build multiple capabilities and methods to achieve competitive advantage.	22.68	129	0.000	%90.6	Statistically significant
3-Using administrative and marketing costs contributes to producing higher values and benefits for the company's customers than competitors, achieving a competitive advantage.	25.80	129	0.000	%90.5	Statistically significant
4- The resource consumption accounting system helps determine the direct costs of production and achieve a competitive advantage.	20.54	129	0.000	%88.3	Statistically significant
5- The resource consumption accounting system contributes to improving product quality to achieve a competitive advantage.	20.72	129	0.000	%88.2	Statistically significant
6- The resource consumption accounting system relies on a strategy of differentiation, focus, or comprehensive cost leadership to achieve competitive advantage.	20.22	129	0.000	%87.2	Statistically significant
7- The resource consumption accounting system contributes to employing cost management tools to achieve competitive advantage.	17.86	129	0.000	%85.1	Statistically significant
8- The resource consumption accounting system analyzes resources to create competitive cost advantages to achieve competitive advantage.	15.90	129	0.000	%84.3	Statistically significant
9- The resource consumption accounting system helps in disclosing idle capacity to achieve competitive advantage.	19.16	129	0.000	%87.1	Statistically significant
10- Implementing a resource consumption accounting system influences customers and makes them aware of the company's superiority in achieving a competitive advantage.	19.61	129	0.000	%87.1	Statistically significant

**Table (5) Shows:**

1. The calculated t-test value for the significance of the differences between the study sample members who agreed, were neutral, and disagreed with the first statement was (23.92). The significant study variables value was (0.000), which is less than the significance level of (0.05) at a degree of freedom of (129) and a significance level of 5%, indicating the presence of statistically significant

differences between the sample members' answers, in favor of those who strongly agreed with the first statement.

2. The calculated t-test value for the significance of the differences between the study sample members who agreed, were neutral, and disagreed with the second statement was (22.68). The significant study variables value was (0.000), which is less than the significance level of (0.05) at a degree of freedom of (129), indicating the presence of statistically significant differences between the sample members' answers, in favor of those who strongly agreed with the second statement.
3. The calculated t-test value for the significance of the differences between the study sample members who agreed, were neutral, and disagreed with the third statement was (25.80). The significant study variables' value was (0.000), which is less than the significance level of (0.05) at a degree of freedom of (129), indicating the presence of statistically significant differences between the sample members' answers, in favor of those who agreed with the third statement.
4. The calculated t-test value for the significance of the differences between the study sample members who agreed, were neutral, and disagreed with the fourth statement was (20.55). The significant study variables' value was (0.000), which is less than the significance level of (0.05) at a degree of freedom of (129), indicating the presence of statistically significant differences between the sample members' answers, in favor of those who strongly agreed with the fourth statement.
5. The calculated t-test value for the significance of the differences between the study sample members who agreed, were neutral, and disagreed with the fifth statement was (20.72). The value of the study variables' significance was (0.027), which is less than the significance level of (0.05) at a degree of freedom of (129), indicating the presence of statistically significant differences between the sample members' answers, in favor of those who strongly agreed with the fifth statement.

6. The calculated t-test value for the significance of the differences between the study sample members who agreed, were neutral, and disagreed with the sixth statement was (20.22). The value of the study variables' significance was (0.000), which is less than the significance level of (0.05) at a degree of freedom of (129), indicating the presence of statistically significant differences between the sample members' answers, in favor of those who agreed with the sixth statement.
7. The calculated t-test value for the significance of the differences between the study sample members who agreed, were neutral, and disagreed with the seventh statement was (17.86). The value of the study variables' significance was (0.000), which is less than the significance level of (0.05) at a degree of freedom of (129), indicating the presence of statistically significant differences between the sample members' answers, in favor of those who agreed with the seventh statement.
8. The calculated t-test value for the significance of the differences between the study sample members who agreed, were neutral, and disagreed with the eighth statement was (15.90). The value of the study variables' significance was (0.000), which is less than the significance level of (0.05) at a degree of freedom of (129), indicating the presence of statistically significant differences between the sample members' answers, in favor of those who strongly agreed with the eighth statement.
9. The calculated t-test value for the significance of the differences between the study sample members who agreed, were neutral, and disagreed with the ninth statement was (19.16). The value of the study variables' significance was (0.000), which is less than the significance level of (0.05) at a degree of freedom of (129), indicating the presence of statistically significant differences between the sample members' answers, in favor of those who strongly agreed with the ninth statement.
10. The calculated t-test value for the significance of the differences between the study sample members who agreed, were neutral, and disagreed with the tenth

statement was (19.6). The value of the study variables' significance was (0.000), which is less than the significance level of (0.05) at a degree of freedom of (129), indicating the presence of statistically significant differences between the sample members' answers, in favor of those who strongly agreed with the tenth statement.

### Results of the Statistical Analysis for Testing the Hypothesis:

In light of the problem and objectives of the study, the study hypothesis can be formulated as follows:

Study hypothesis: There is a statistically significant relationship between the application of the resource consumption accounting method in improving product quality and reducing financial costs to achieve a competitive advantage.

To prove this hypothesis, a simple regression model was used, which measures the relationship between the independent variable (represented by the resource consumption accounting system in improving product quality) and the dependent variable (represented by competitive advantage). The results of the analysis are as shown in the following table:

Table (6): Results of the regression analysis of the relationship between the application of the resource consumption accounting method in improving product quality and reducing financial costs to achieve a competitive advantage (Source: Prepared by the researchers from survey data 2025)

Variables	Regression coefficient (B)	Chi-square test	Significance level
The relationship between applying the resource consumption accounting method to improve product quality and reduce financial costs to achieve competitive advantage	0.56	5.21	0.000
Correlation coefficient (R)	0.82		
Coefficient of determination (R <sup>2</sup> )	0.67		
F	34.2		
Sig F	0.000		

**Table (6) shows:**

1. There is a strong direct correlation between the application of the resource consumption accounting method in improving product quality and reducing financial costs to achieve a competitive advantage in the study community. This is evident from the value of the correlation coefficient (R) and the value of the regression coefficient (B), as follows: The value of the correlation coefficient was (0.82) and the value of the regression coefficient was (0.56), which is a positive value, indicating a direct correlation between the application of the resource consumption accounting method in improving product quality and reducing financial costs to achieve a competitive advantage. Therefore, applying the resource consumption accounting method to bring about a change in improving product quality and reducing financial costs to achieve a competitive advantage by 10% results in a change in the level of achieving a competitive advantage by (5.6%), with all other variables held constant.
2. The results in Table () indicate that the independent variable, applying the resource consumption accounting method to improve product quality, has an impact on the dependent variable (reducing financial costs to achieve a competitive advantage). The coefficient of determination reached 0.67. This result indicates that the variable of applying the resource consumption accounting method to improve product quality has a 67% impact on reducing financial costs to achieve a competitive advantage, while other variables not included in the model have a 33% impact. The analysis results also reveal a significant relationship between the dependent variable (reducing financial costs to achieve a competitive advantage) and the independent variable (resource consumption accounting method to improve product quality), according to the Chi-square test and the F-square test at a significance level of 5%. The calculated Chi-square value for the regression coefficient reached 5.21 at a significance

level of 0.000, and the F-square value reached 34.2 at a significance level of 0.007.

Based on the analysis results, it is concluded that the study's hypothesis, which states that "there is a statistically significant relationship between the application of resource consumption accounting in improving product quality and reducing financial costs to achieve a competitive advantage," is acceptable.

### **First: Results**

Through the theoretical and applied study, the researcher reached the following conclusions:

1. The study demonstrated that the resource consumption accounting system provides customers with high-quality products and achieves a competitive advantage.
2. The study demonstrated that the application of research and development contributed to increasing the company's ability to acquire and build multiple capabilities and methods to achieve a competitive advantage.
3. The emphasis on the use of administrative and marketing costs contributes to generating higher value and benefits for the company's customers than competitors, achieving a competitive advantage.
4. The study demonstrated that the resource consumption accounting system works to identify direct production costs to improve product quality and achieve a competitive advantage.
5. The reliance on the resource consumption accounting system in employing cost management tools to ensure a competitive advantage.
6. The study demonstrated that the resource consumption accounting system helped in disclosing idle capacity to achieve a competitive advantage.

7. The implementation of the resource consumption accounting system influenced customers and their perception of the company's superiority in achieving a competitive advantage.
8. The implementation of the resource consumption accounting system contributed to the regrouping of strategically appropriate corporate activities to achieve a competitive advantage.

## Second: Recommendations

Based on the results, the researcher recommends the following:

1. Employ the resource consumption accounting system to provide customers with high-quality products and achieve a competitive advantage.
2. Emphasize the application of research and development methods to increase companies' ability to acquire and build multiple capabilities and methods to achieve a competitive advantage.
3. The necessity of utilizing administrative and marketing costs to achieve higher value and benefits for companies' customers than competitors to achieve a competitive advantage.
4. Focus on the advantages of the resource consumption accounting system in identifying direct costs to ensure increased production and achieve a competitive advantage.
5. Leverage the various advantages of the resource consumption accounting system to improve product quality and thus achieve a competitive advantage.
6. The necessity of utilizing the pillars of the resource consumption accounting system, whether the differentiation and focus strategy or comprehensive cost leadership, to achieve a competitive advantage.
7. Increase reliance on the resource consumption accounting system to employ cost management tools to ensure competitive advantage.

8. Focus on the resource consumption accounting system to analyze various resources to ensure competitive cost advantages.
9. Leverage the resource consumption accounting system to disclose idle capacity to ensure competitive advantage.
10. The need to provide an appropriate environment for implementing the resource consumption accounting system to contribute to the creation of reliable information for future costs in companies.

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