Shodhshauryam, International Scientific Refereed Research Journal
© 2018 SISRRJ | Volume 1 | Issue 1 | ISSN : 2581- 6306

Role of Accounting Information Systems in Enhancing Managerial Efficiency

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Abstract

Accounting information is of paramount importance in sustaining managerial decision making, planning and organizational control since it affects the quality and utility of accounting information. Accounting Information Systems (AIS) have the critical function in enhancing the managerial efficiency by supplying necessary, time and relevant data for strategic as well as operational decisions. This paper explores the interplay between the quality of accounting information and its application in managerial processes, emphasizing the five-step framework described by Horngren (2014): information acquisition, problem identification, forecasting, decision making and implementation. This study draws on the works of numerous scholars to explain how AIS combines the qualitative characteristics of relevance, faithful representation, comparability and timeliness to satisfy the differing demands of internal and external stakeholders. Finally, the authors highlight the very important role of AIS in relation to core areas of cost management, resource allocation, performance evaluation and long-term planning. The findings suggest that organizations with well-designed AIS frameworks are more efficient and accurate in financial reporting, thereby supporting better decisions and organization's growth. Furthermore, the paper takes the case of AIS and managerial efficiency further, through empirical evidence and finds that high quality accounting information has a significant impact on strategic choices within the domains of manufacturing, human resources, marketing, and investments. AIS emerges as an accounting tool that addresses the qualitative attributes determined by International Financial Reporting Standards (IFRS) and the advanced accounting tools in support of the achievement of business objectives and managerial effectiveness.

Keywords: Accounting Information Systems (AIS), Managerial Efficiency, Decision-Making, Financial Reporting, Qualitative Characteristics, Strategic Planning, Organizational Control, Resource Allocation, Performance Evaluation, International Financial Reporting Standards (IFRS).

Introduction

The diversity of stakeholders necessitates accurate accounting information for internal as well as external users; thus, the quality of this information is essential for facilitating informed decision-making. Karthikeyan (2010) asserts that data consumers had elevated expectations regarding the quality and value of the information consumers get. Moreover, the reliability of accounting information is deemed essential for attaining cost accounting objectives through planning, control, performance assessment, and decision-making. Horngren (2014) delineates a five-step process that demonstrates how accounting can assist in decision-making, planning, and activity regulation:

1. Problem Identification and Potential Pitfalls

- Acquiring pertinent information
- Formulating projections for the future
- Selecting from a range of options to make decisions

The concluding processes involve assuming responsibility, implementing the decision, evaluating performance, and deriving insights from the experience. According to the findings of Jawabreh and Alrabei (2012), the collection of high-quality data is essential for enhancing its efficacy; this will yield superior knowledge regarding the company, facilitating improved planning and management, as well as more effective decision-making.

Numerous methodologies exist to characterize information quality, each possessing distinct advantages. This study seeks to evaluate the role of information quality rather than its intrinsic quality. Due to the diverse purposes that information quality might achieve, professionals frequently employ proxy measures to assess information quality in their operations. The American Institute of Certified Public Accountants (AICPA) defines high-quality information as that which meets the qualitative criteria for financial information, including relevance, timeliness, faithful representation, comparability, verifiability, and understandability (IFRS, 2008). Romney & Steinbart (2015) and other studies identify several characteristics that distinguish useful information from unsuitable information, including relevance, dependability, completeness, timeliness, comprehensibility, verifiability, accessibility, and reliability. According to Ivanov (1972), quality of information is defined as a technique that guarantees a particular piece of information meets designated context-specific quality criteria for a predetermined volume of data. He asserts that individuals would have greater confidence in addressing larger and less technical difficulties if the product quality were enhanced. The authors of a 2010 study assert that the accounting information system is intrinsically linked to the organization's culture, the extent of its strategic planning, and the condition of its information technology infrastructure. Small enterprises that have implemented a well-structured accounting information system can gain future advantages through enhanced accuracy in their financial data. The accounting information system in a business performs several essential functions, including the collection and documentation of data related to activities and transactions, data processing to generate information for decision-making regarding operational planning, application, or control, and the implementation of necessary controls to protect the company's assets.

A multitude of experts has underscored the significance of accounting information in aiding organizations to attain their aims. Patel (2015) underscores the significance of accounting information in decision-making. He asserts that economic and financial information derived from accounting is perpetually pertinent in managerial decision-making on financial & economic issues, influencing the ongoing viability of a company. Accountants utilize many accounting instruments, including cost accounting systems, pricing, management accounting systems and profitability studies, and additional financial and economic analysis tools, to obtain necessary information for financial and economic choices. Additionally, a 2014 study by Hafij, Ahmed, and Tamanna examined the utilization of accounting data by decision-makers across five strategic domains: fundamental strategy, manufacturing, human resources, long-term investment, and marketing. The researchers discovered that decision-makers utilized accounting data in 5 strategic domains: core strategy, manufacturing, human resources, and marketing. The study's findings indicate a statistically significant correlation among accounting information & strategic decisions.

Moreover, strategic decisions in all relevant domains are significantly shaped by accounting information. Furthermore, the study results indicate that 44.44 percent of respondents consistently utilize accounting information while making strategic decisions in the manufacturing sector.

It has been asserted (2015) that management accounting provides information advantageous to organizational managers. Managers may derive advantages from accounting information since it enhances their comprehension of commitments and mitigates uncertainty prior to decision-making. Information possessed by accountants that exhibits qualitative characteristics is categorized as qualitative information.

Earlier this year, the International Accounting Standards Board (IASB) endorsed the qualitative characteristics of accounting information established by the International Accounting Standards Committee Board (IASC Board), which was constituted in 2001. When formulating information, it is crucial to consider variables such as relevance, accuracy of representation, verifiability, timeliness, comparability, and comprehensibility, among others. Each element aims to enhance the overall standard of financial statements while providing pertinent information to a diverse array of consumers and enterprises. The International Financial Reporting Standards delineate the framework into core features and growth characteristics (2008). Relevance and accurate depiction are necessary features, while comparability, timeliness, verifiability, and understandability are advantageous attributes. The International Accounting Standards Board & the Financial Accounting Standards Board aim to address the information requirements of current common shareholders while also establishing a conceptual framework that caters to a diverse range of existing and prospective users. Alshami and Noor (2009) examined the relationship among the quality of financial reports & the qualitative aspects of accounting data to ascertain the underlying dynamics. They identified a correlation between the two. The research team indicated that these traits are correlated with the quality of financial statements. The International Financial Reporting Standards define "qualitative characteristics" as attributes that enhance the value of financial reporting information (2008). Qualitative attributes and quantitative metrics are two concepts that can be utilized together to augment the utility of financial reporting information. Diverse categories of capital providers may assign differing degrees of significance to various types of financial reporting information.

2. The Characteristics Summarized

Essential qualitative characteristics differentiate helpful financial reporting information from non-useful or deceptive financial reporting information in accounting & financial reporting. The utility of economic data depends on its relevance and quality, both of which are essential qualitative criteria to evaluate (IFRS, 2008, p. 13).

3. Relevance

Information is pertinent if it can affect the capital-raising decisions made by users. If information possesses both predictive & confirmed value, it has the capacity to effect change (IFRS, 2008, p. 35). If statistical data may serve as input for prediction methods employed by capital providers to formulate future estimates, it possesses predictive value. The Financial Accounting Standards Board defines predictive value as "the quality of information that assists users in increasing the possibility of accurately forecasting the outcome of recent or current events" (FASB, 2006a, p. 21). The International Financial Reporting Standards delineate confirmatory value as information that corroborates or modifies prior (or existing) expectations based on earlier evaluations. IFS (2008) asserts that predictive & confirmatory information are interconnected, with predictive significance frequently accompanied by confirmatory evidence. It is essential to deliver a precise representation.

Financial data must precisely represent its economic substance to appropriately illustrate an economic event. The economic scope of the underlying transaction, event, or situations may differ from the legal form of the economic occurrence in question. A monetary phenomenon is considered accurately reported in the field of economics when it is depicted thoroughly, impartially, and without errors (IFRS, 2008, p. 36). The Financial Accounting Standards Board defines representational integrity as "the correspondence or agreement between a measure or description and the phenomena that it purports to describe" (FASB, 2006a, p. 23).

According to the International Financial Reporting Standards (IFRS), a financial report is deemed comprehensive if it has all the information necessary to accurately represent the economic phenomena it aims to depict. Data may be erroneous or deceptive owing to omissions, rendering financial reports ineffective for individuals reliant on them for decision-making. A further sub-characteristic of faithful representation, as delineated by the International Financial Reporting Standards, is the lack of bias intended to attain a predetermined conclusion or to promote particular conduct by the auditor. Neutral data is unbiased and appropriately represents the economic reality it claims to illustrate. Consequently, the International Financial Reporting Standards (IFRS) (2008) assert that truthful representation does not necessitate absolute error-free accuracy, as economic events are evaluated under conditions of uncertainty. To adhere to the International Financial Reporting Standards, an estimate must rely on the most recent facts and inputs available. The subsequent paragraph states that an estimate must possess a certain level of accuracy to accurately represent its attributes.

According to the International Financial Reporting Standards, "qualitative enhancement attributes differentiate between more beneficial information and less useful information, thereby enhancing the decision-usefulness of financial reporting information that is pertinent and accurately presented" (2008). Enhancements could be made to features such as comparability, timeliness, verifiability, and understandability.

4. Comparability

Individuals can distinguish between the similarities and differences of two sets of economic data if they possess a comprehensive understanding of both information sets. Users must possess the ability to analyze a company's financial statements over time & compare numerous enterprises to evaluate their relative financial health, performance, and changes in financial position to identify patterns (IASB, 2005, FASB, 1980). The International Financial Reporting Standards (IFRS) state that the purpose is "comparability," while consistency serves as "a means to an end that supports the achievement of that goal" (IFRS, 2008, p. 39). Conversely, character is characterized by adherence to consistent rules and practices from year to year, irrespective of prevailing situations (FASB, 1980). Davis (2010) illustrated that the fair value hierarchy exhibits greater consistency and resemblance to the historical cost hierarchy.

5. Verifiability

"A characteristic of information that ensures users that it accurately reflects the economic phenomena it claims to depict;" it suggests that "various informed and independent observers could achieve a consensus, albeit not necessarily total agreement" regarding a financial statement, as per the International Financia l Reporting Standards (IFRS) (p. 39).

The Financial Accounting Standards Board (FASB) defines verifiability as "the capacity to assure that information represents what it purports to represent via the utilisation of agreement among measurers" (FASB, 2006b, p. 22).

6. Promptness

According to the International Financial Reporting Standards (IFRS), the prompt provision of information to decision-makers is defined as making information accessible prior to its potential loss of effect on their decisions (p. 40). Timely communication is essential for the utility of choices, which, according to Whittington (2008), pertains to fair value, and is also necessary for present value.

7. Comprehensibility

Understandability refers to the capacity of users to comprehend the meaning of information. Individuals can more readily grasp knowledge when it is systematically arranged and articulated with clarity and brevity. Comparability may also enhance the development of comprehension skills (IFRS, 2008, p. 40).

The primary objectives of cost accounting are as follows:

- Lodha asserts that the assessment and evaluation of expenses and revenues are conducted by product, function, & level of accountability (2016).
- Collection and analysis of cost data for cost management to attain the minimal cost while preserving quality.

Techniques employed to attain this objective include establishing targets, assessing actual outcomes, juxtaposing actuals with targets, scrutinizing the causes of variances, notifying management of differences for rectification, and supplying pertinent data to inform decision-making. Accounting serves multiple applications, of which Abu Nassar (2015) categorizes into four distinct groups:

- Preparation;
- exercising control;
- the decision-making process;
- Assessment of individual performance.

The subsequent steps constitute a five-step decision-making process, as outlined by Horngren (2015):

Ascertain the nature of the problem and any uncertainties, then advance accordingly. Collect data on the topic; managers may have a clearer understanding of uncertainty by acquiring information prior to decision-making.

Formulate forecasts on future occurrences

To make a decision, one must select from multiple distinct options. Strategic consideration is essential in decision-making, as workers across various firm sectors make decisions at different times. Strategic consistency connects individuals and timelines, while simultaneously providing a unified objective across a diverse array of options. When decisions align with an organization's plan, the strategy can be executed, leading to the attainment of objectives. If this alignment is not attained, decisions will be taken independently, resulting in the organization being tugged in many ways and leading to inconsistency.

The initial four steps of the process are conventionally termed "planning." The planning process encompasses the identification of organizational targets and approaches, the forecasting of outcomes through various alternative methods to attain those objectives, the establishment of means to achieve the desired goals, and the dissemination of the objectives and procedures throughout the organization. In these planning procedures, management accountants are crucial due to their comprehensive understanding of value creation and the primary success factors within the firm. The budget is the paramount planning instrument available to a corporation for implementing a strategy. A budget is a tool that aids management in organizing the necessary tasks to implement a designated plan of action for future planning. Decide, act, evaluate your results, and persist on your learning journey. Managers are responsible for implementing the directives and policies of the budget. Management accountants gather data to assess the disparity between actual performance and projected or budgeted outcomes. They are also tasked with analyzing financial statements, commonly referred to as scorekeeping. The information acquired in Step 2 for pre-decision preparation was separate from that collected in Step 2 for actual outcomes, enabling management to comprehend uncertainty more effectively, formulate predictions, and ultimately make informed decisions based on this understanding. Data serves as a regulatory or post-decisional instrument by allowing managers to juxtapose actual performance with projected performance.

Control management include the implementation of policies to execute planning decisions, the development of performance measurement tools, and the provision of feedback and learning to facilitate future decision-making. Managers assess the effectiveness of their performance and that of their subunits in practical scenarios by observing and evaluating the results. Management may exhibit more motivation if their compensation is linked to their accomplishments. Both internal (acknowledgment for outstanding performance) and external (financial remuneration) incentives are available for evaluation. Internal stimuli encompass: compensation, bonuses, and promotions associated with performance. Budgets serve as instruments for control and planning, as they establish a benchmark for evaluating actual performance. Budgets serve as tools for both managing and planning activities.

Literature Review

A considerable number of academic academics have investigated the significance of accounting data quality. One example is the study by Shirima et al. (2015), which examined the correlation between the utilization of accounting data & overall performance of cooperatives. Cooperatives utilize accounting data to guide critical business decisions; nevertheless, there is limited information regarding their methodologies. Alrabei (2012) examined the efficacy of accounting information systems employed by Jordanian Islamic financial organizations. The study findings indicate that banks depend on accounting information systems to promptly and efficiently address consumer requests for financial services. A questionnaire was developed and distributed to financial managers, internal auditors, accountants, and heads of accounting departments in Jordanian Islamic banks to fulfill the research objectives. Forty-two questionnaires were dispatched, of which thirty-five were returned. This yielded an overall response rate of 83.33 percent, which is considered satisfactory in this context. The data were analyzed utilizing various methodologies, including SPSS and additional statistical techniques. Research findings indicate that Accounting Information Systems (AISs) are the predominant type of technology utilized in Jordanian Islamic banks. They facilitate the timely provision of practical information regarding readily accessible substances. Nnenna (2012) conducted a study that analyzed accounting data as a decision-making instrument for senior executives in a publicly traded company. He stated that information is essential for a business to thrive and persist in making informed management decisions. This objective can only be attained with precise accounting information, he contends. This study seeks to evaluate the effectiveness and efficiency of reliable accounting information in company decision-making. This analysis assesses the importance of accurate accounting data in attaining a company's profit objectives. Various data collection approaches were determined to be utilized for the project's completion. Surveys, interviews, & observations were utilized as techniques of distribution. These strategies were employed to acquire both primary and secondary information sources. This study employed the analysis of variance (ANOVA) as the preferred statistical method. Tables and decision-making methodologies were employed to evaluate and display the outcomes. Our analysis indicates that a robust accounting system can enhance profit margins for organizations over time. All employees in the Accounts Department must be collaborative and fully cognizant of their department's responsibilities to provide timely accounting information to the company, in accordance with its rules and procedures. In his presentation, Socea (2012) underscored the significance of financial accounting data in management's decision-making process. He examined the relationships utilizing a fundamental qualitative research method grounded in a self-developed analysis of pertinent literature. He delineates various factors regarding decisions, decision theories, decision-makers, decision-making processes, the manager's pivotal role in decision-making, and the significance of financial accounting information in this context, emphasizing the quality of financial accounting information as a crucial determinant of its decision-usefulness, all while employing a coherent literature review. Lastly, we analyze our findings and propose enhancements for managerial decision-making techniques. The findings indicate that financial accounting information aids managers in understanding historical events and the current status of the firm. It highlights situations that could otherwise be overlooked in routine operations, provides a quantitative overview of the company, and aids managers in strategizing future actions and decisions. Decision-making is fundamentally influenced by individual perceptions and interpretations that shape one's worldview, rather than being based exclusively on facts and contemporary events. Financial accounting data must be intangible, pertinent, reliable, and comparable to be utilized for decision-making, among other attributes. Conversely, Hall (2010) examined the correlation between accounting information and managerial responsibilities. His prior study has led to the formulation of a series of propositions grounded in three fundamental discoveries regarding the utilization of accounting data by managers in their daily tasks. Management study indicates that accounting data is increasingly utilized to enhance comprehension of an organization's operations rather than to facilitate specific decision-making scenarios. Management can leverage accounting data to provide insights that will enhance their preparedness for unpredictable future decisions and operations in this domain. Primarily, accounting data constitutes but one element of a more extensive dataset that managers depend on to fulfil their obligations efficiently. Managers mostly communicate through verbal interactions, which increases the likelihood that accounting information will become intertwined with management actions during discussions rather than through written reports. Consequently, it is essential to reevaluate the manner in which managers utilize accounting data overall, and precisely how they employ the many forms of accounting data deemed valuable or potentially beneficial. An additional inquiry is underway to enhance the presentation of experimental and field-based processes, specifically targeting the behaviours managers exhibit when handling accounting data.

Ahmad (2006) conducted supplementary study to ascertain the significance of accounting data in the decision-making processes of Palestinian public joint-stock businesses. To achieve the study's objectives and address its inquiries, the researcher reviewed contemporary literature on the topic. The researcher acquired a secondary information source through this literature, which was subsequently utilized to construct the study's conceptual framework. To establish a realistic framework, the researcher employed a questionnaire specifically prepared for this end. Upon the necessity to perform the requisite statistical analysis and evaluate the study hypotheses, the researcher adopted a descriptive-analytical strategy to achieve their objectives. Upon completing research, he determined that accounting data is essential in the decision-making process of public joint-stock businesses. To collect accounting data that can be utilized in decision-making processes. This study concludes that firms routinely utilize accounting data for future planning and policy formulation. In public joint-stock companies, senior management aids financial management departments by supplying skilled personnel and enhancing employees' expertise in accounting, enabling them to deliver essential and precise accounting information and outcomes. In 1993, Abdel Razeq aimed to ascertain the level of accounting data utilization in administrative decisions, particularly in control and planning, which he considered the most critical management responsibilities. He was especially focused in quantifying the challenges and obstacles that decision-makers would face when utilizing this information. He collected data for the study by distributing questionnaires to 41 industrial companies, all of which replied affirmatively and supplied the requisite information. His research indicates that 80 percent of companies utilize accounting information from reports and financial statements for management decisions regarding planning and control, while 85 percent employ accounting information from prior plans, descriptions, along with financial statements to assess discrepancies between actual & planned performance, considering human resources. Approximately 83.27 percent of decision-makers inside a firm rely on accounting information derived from reports, financial statements, & related documents for planning and control when making decisions.

Conclusion

The study reveals the importance of AIS in improving the effectiveness of a manager through the availability of accurate, relevant and timely information of which is vital in the decision making process, planning as well as control of an organization. In this way, AIS positions the financial reporting according to the qualitative characteristics outlined by International Financial Reporting Standards (IFRS) to meet the broad needs of the stakeholders and provide value to support strategic and management decision-making with the nature of benefits that aids the organizations' development. The implication of the above discovery is that organizations with strong AIS systems can overcome intricate business characteristics and deploy resources to accomplish organizational goals and strategies. Thus, the investment in development and integration of AIS is decisive for modern enterprises that apply solutions to increase the effectiveness of managerial decisions and withstand competition.

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