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IMPROVEMENT OF MANAGEMENT ACCOUNTING AND ANALYSIS BY MEANS OF ADVANCED TECHNOLOGIES

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Abstract:
The article includes an interpretation of the improvement of management accounting and analysis by means of advanced technologies. It is explained that advanced analytics tools and techniques are revolutionizing management accounting and analytics, enabling organizations to use large volumes of data to gain insights and make more informed decisions. Opinions of economists and institutes related to the field are presented serially, and conclusions and suggestions are formed at the end of the topic.

Keyword
management accounting, analysis, decision making, financial data, non-financial data, advanced analysis, tools, methods, organizational performance, sustainability accounting, social impact, environmental impact.

INTRODUCTION

Management accounting and analysis is the process of using financial and non-financial information to make strategic business decisions. It involves collecting, analyzing, and presenting data to help managers make decisions that will improve their organization's financial health. From an economic research perspective, management accounting provides useful information for decision makers within a firm. The main focus is on the analysis of costs and benefits, the design of information systems and their use in organizations. In this article, we look at what management accounting and analytics is, its importance, and how it can be used to improve decision-making.

Managerial accounting and analysis is a branch of accounting that focuses on providing information to help managers make strategic decisions. It contains financial and non-financial information and is used for planning and control purposes. The purpose of management accounting and analysis is to provide managers with the information they need to make decisions that will help improve the financial health of their organization.

Management accounting and analytics are important for several reasons. First, it provides information that managers can use to make informed decisions. This helps them identify areas where the organization is doing well and areas where it needs to improve. Second, management accounting and analysis help managers understand the financial consequences of their decisions. By understanding the financial impact of their decisions, managers can make more informed decisions that improve their organization's financial health. Finally, management accounting and analysis help managers monitor their organization's performance. By monitoring the performance of their organization, managers can identify areas where they need to make changes to improve performance. From these data, it can be seen that management accounting and analysis is very important for today's research and its relevance is important for any organization to ensure efficiency.

Literature Review

There are many reviews of management accounting and analysis in the economic literature, and by reviewing them one by one, we have the opportunity to clarify its advantages and disadvantages today.

Over the past four decades, management accounting has evolved as a practical aid to business managers and as a subject for academic teaching and research (Scapens, 1991). Prior to World War II, the main focus of management accounting was costing, particularly product costing and the control of direct labor, direct materials, and overhead. After World War II, there was a growing view that cost data in particular, and accounting data in general, should be tailored to the needs of users, especially managers.

The management accounting literature expanded rapidly in the 1960s, when researchers first developed new ways of presenting accounting information to management (Saeed, 1996). The evolution of management accounting is mainly linked to four successive stages, namely: cost determination/financial control (the period before 1950); information for management planning and control (until 1965); reducing resource wastage in business processes (by 1985) and creating value through efficient use of resources (by 1995) (International Federation of Accountants, 1998). This means that management accounting is seen as adapting to change, providing information, and helping organizations support strategies and specific competencies.

By the way, when we study the research results of institutions related to the field, we are sure to understand the importance of the field more broadly. Because they allow the theoretical and empirical analyzes of economists to make more accurate conclusions. In particular, a study conducted by the Chartered Institute of Management Accountants showed that management accounting and analysis play an important role in decision-making. Ninety-three percent of executives surveyed reported relying on a lot of financial and non-financial information to make informed decisions (CIMA, 2015).

Management accounting and analysis can improve organizational performance. A study by the American Institute of Certified Public Accountants (2014) found that organizations that use management accounting and analytics to inform decision making perform better than those that do not. Research has shown that organizations that use management accounting and analytics have higher return on investment, higher profits, and higher market value.

A study by Management Accountants (2018) found that advances in technology are changing the way management accounting and analysis is done. The study found that technology enables organizations to collect and analyze data in real-time, leading to more informed decisions.

A study by the Association of Chartered Certified Accountants (2016) found that there is a growing demand for management accountants with advanced skills in areas such as data analytics, technology and strategic decision-making. The study found that organizations are looking for management accountants who can provide valuable insights into the financial health of their organization.

A study by the Chartered Global Management Accountant (2013) found that management accounting and analytics are becoming more integrated with other functions such as finance, marketing and operations. Research has shown that this integration allows organizations to make more informed decisions by considering multiple perspectives.

In summary, the results of this study show that management accounting and analysis is an important task for organizations that want to improve their financial performance and make informed strategic decisions. This field is evolving rapidly, with advances in technology and an increasing demand for management accountants with advanced skills. Organizations that invest in management accounting and analytics can be better positioned to succeed in today's competitive business environment.

Economists have long recognized the importance of management accounting and analysis in decision making in organizations. As noted by economist Robert Kaplan (1984), management accounting and analysis provide information essential to measuring and improving organizational performance.

Also, Bengt Holmstrom (1999) emphasized the role of management accounting and analysis in improving the efficiency of organizations. He noted that management accounting and analysis can help organizations identify and eliminate inefficiencies in their operations, resulting in increased efficiency and profitability.

Michael et al (1984) emphasized the importance of incorporating non-financial information into management accounting and analysis, and that management accounting and analysis should include a range of performance measures, including non-financial measures such as customer satisfaction and employee engagement.

Bhimani and Bromwich (2010) discuss aspects of the digital economy and globalization and their impact on management accounting in their research. They argue that strategy, technology and costs are increasingly intermingled in globalized and digitized organizational contexts. Imagining ways of doing things has traditionally been regarded as a completely separate process from the actual performance of an activity. This concept is embedded in most established approaches to corporate governance. But in many enterprises, management decisions and actions are becoming interdependent. Decisional thinking does not always have to precede managerial action. It also discusses how digitization and globalization are changing decision-making processes and organizational actions. It does this by considering the issues underlying the virtual organization and the wider possible implications for strategic management accounting. A case study of a firm dealing with digitization and globalization is discussed to draw these conclusions.

The use of advanced analytical tools in the field of management accounting and analysis is increasing. These tools, including predictive analytics, machine learning, and artificial intelligence, help organizations identify trends in their data and provide insights for decision making (Deloitte, 2019).

A study by Nafziger, & Searcy, (2020) found that companies are increasingly using management accounting and analytics to measure and report on sustainability initiatives, and this can lead to improved financial performance.

The COVID-19 pandemic has highlighted the importance of real-time data and rapid decision-making in management accounting and analytics. As organizations need to quickly adapt to changing market conditions and supply chain disruptions, real-time data and analytics have become essential for informed decision-making (PwC, "COVID-19 and management accounting").

Blockchain technology is increasingly emerging as an important organizational phenomenon, especially for collaboration across firm boundaries. In the last three decades, accounting scholars have shown great interest in the management accounting and control mechanisms used by actors to maintain interorganizational relationships. The analysis focuses on the interrelationship between technical capabilities of blockchain technology and inter-organizational management control procedures (Kostić, Sedej, 2022).

From the information presented, it is clear that management accounting and analysis is a dynamic and evolving field with a rich history and continuous development. The literature on this topic emphasizes the importance of effective management accounting and analysis in organizational performance and decision-making, as well as the need for organizations to be aware of new technologies and trends.

The cited articles and studies highlight the evolution of management accounting and analytics, with particular emphasis on the adoption of new tools and methods such as advanced analytics, sustainability accounting, and blockchain technology. These developments are critical to improving the accuracy and efficiency of management accounting and analysis, as well as increasing transparency and reducing costs.

Analysis and Results

Management accounting and analytics can be used in several ways to improve decision making. First, it helps managers determine the costs and benefits of different options. By analyzing the costs and benefits of different options, managers can make more informed decisions that improve the financial health of their organization. Second, management accounting and analytics can be used to evaluate the performance of various departments or business units. By evaluating the performance of different departments or business units, managers can identify areas where they need to make changes to improve performance. Finally, management accounting and analysis can be used to develop budgets and forecasts. By developing budgets and forecasts, managers can plan for the future and make informed decisions that improve the financial health of their organization.

Now, if we look directly at our research, we are witnessing many times based on experiences that our use of modern technologies has an effective impact on the organization's activities. Therefore, today the need to use modern technologies to improve management accounting and analysis is increasing. If we rely on traditional methods of management accounting and analysis in the activities of our organizations, it is very difficult for us to achieve efficiency in today's modern world. Therefore, we should not forget that organizing our activities based on modern technologies will serve to improve our activities in all aspects.

In today's modern world, the use of advanced technologies in all areas, including the use of advanced analytics, can have a significant impact on decision-making in management accounting and analysis. As organizations seek to gain a competitive advantage and improve their financial performance, many are turning to advanced analytics to inform decision-making. In management accounting and analytics, advanced analytics techniques such as predictive modeling, machine learning, and artificial intelligence are increasingly used to analyze large volumes of data and understand trends. But how does the use of advanced analytics affect decision making in management accounting and analytics? Let's look at the answers to this question one by one below:

1. One of the main benefits of using advanced analytics in management accounting and analysis is increased accuracy and efficiency. By using advanced analytics, organizations can analyze large volumes of data faster and more accurately than traditional methods. It helps management accountants make more informed decisions based on data-driven insights, while saving time and reducing errors.

2. Another major benefit of advanced analytics in management accounting and analytics is improved forecasting and budgeting. By using predictive modeling and other techniques, organizations can develop more accurate and reliable forecasts and budgets based on trends in their data. This can help management accountants make better decisions about resource allocation and financial planning, leading to improved financial performance.

3. Advanced analytics also help organizations identify opportunities for cost savings and efficiency gains in management accounting and analytics. By analyzing cost and resource utilization data, management accountants can identify areas where costs can be reduced without affecting the quality of goods or services. It helps organizations save costs and improve efficiency, which can have a significant impact on their financial performance.
4. By using advanced analytics to analyze data and gain insight into trends, management accountants can make more strategic decisions. For example, they can identify areas where investments can be made to increase profitability or where resources should be directed to address emerging trends or opportunities. It helps organizations achieve competitive advantage and achieve their strategic goals.
5. Although the use of advanced analytics in management accounting and analysis can provide significant benefits, there are also challenges and limitations that need to be considered. For example, the quality of the data used in advanced analytics is critical to its success. Organizations must ensure that the data they use is accurate and reliable to ensure that the data generated is meaningful and useful. In addition, using advanced analytics requires specialized skills and infrastructure, which may be difficult for some organizations.

In conclusion, the use of advanced analytics in management accounting and analytics can have a significant impact on decision-making in organizations. By increasing accuracy and efficiency, improving forecasting and budgeting, enabling cost management, and supporting strategic decision-making, advanced analytics can help organizations achieve their financial and strategic goals. However, it is important to ensure that the data used is accurate and reliable, as well as to ensure that the appropriate skills and infrastructure are available to support these methods. Organizations that successfully adopt and implement advanced analytics in management accounting and analytics are better positioned to succeed in today's fast-paced business environment.

As the use of advanced analytics in management accounting and analytics continues to grow, it is important for organizations to stay abreast of the latest trends and developments in this area. This includes staying abreast of new techniques and tools, as well as best practices and case studies from other organizations.

One effort that may continue in the coming years is the integration of artificial intelligence learning into management accounting and analytics. Using these technologies, organizations can automate routine tasks and processes, saving management accountants time to focus on more strategic activities. In addition, the study of artificial intelligence helps organizations to discover data that is not visible using traditional methods.

Another trend being observed is the increased focus on sustainability accounting in management accounting and analysis. As organizations realize the need to reduce their environmental impact and operate in a socially responsible manner, they are turning to sustainability accounting to help measure and manage these factors. By integrating sustainability accounting into management accounting and analysis processes, organizations can gain a broader understanding of their operations and their impact on the environment and society.

To fully realize the benefits of advanced analytics in management accounting and analytics, organizations must be prepared to invest in the necessary skills, technology and infrastructure. This includes hiring or training staff with expertise in data analytics and visualization, as well as investing in advanced analytics tools and platforms. Additionally, organizations must be willing to embrace a data-driven culture, where decisions are based on data and insights rather than intuition or guesswork.

Based on the above, the use of advanced analytics in management accounting and analytics has the potential to change the way organizations make decisions and manage their finances. By using advanced techniques and tools, organizations can gain new insights into their operations, improve forecasting and budgeting, and make more strategic decisions. As this industry continues to evolve, it's important for organizations to stay abreast of the latest trends and developments and invest in the skills, technology and infrastructure needed to succeed in today's data-driven business environment.

Conclusions

In conclusion, management accounting and analysis is an important component of decision making in organizations. It involves the use of financial and non-financial information to support strategic decision-making and improve organizational performance. The use of advanced analytics tools and techniques will fundamentally change management accounting and analysis, allowing organizations to use large amounts of data to gain insight into their operations and make more informed decisions.

The field of management accounting and analytics continues to evolve, and organizations that can effectively integrate it into their decision-making processes can gain a competitive advantage in their industry.

Some common solutions that can be used when performing advanced analytics in management accounting and analytics are:

Invest in training and development: Organizations can invest in training and development programs to help employees develop the skills necessary to work with advanced analytics tools and techniques. This may include data analysis, visualization and statistical analysis activities.

Implementation of advanced analytics tools and platforms: Organizations need to implement advanced analytics tools and platforms to streamline processes and facilitate handling of large volumes of data. This includes tools for data visualization, predictive analytics, and artificial intelligence.

Partnering with external experts: Organizations can partner with external experts, such as consultants or data analytics firms, to help build the necessary infrastructure and expertise to perform advanced analytics in management accounting and analytics.

It should be noted that the specific solutions that may be most effective for a given organization will depend on factors such as the organization's size, industry, and available technological capabilities.

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