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# The Role of Management Accounting in Supporting Value-Added-Based Product Innovation

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## Abstract

In the era of global competition and digital transformation, value-added product innovation is the key to a company's competitive advantage. This study aims to examine the strategic role of management accounting in supporting the innovation process through a literature review approach to several academic sources publishedin last five years. The results of the study show that management accounting not only plays a role in recording and controlling costs, but also provides strategic information for feasibility evaluation, decision-making, and innovation performance measurement. Systems such as activity-based costing, target costing, and balanced scorecards have been proven to support value creation in product innovation. In addition, cross-functional integration and the use of information technology strengthen the contribution of management accounting to the success of innovation. However, structural barriers and competency limitations are still the main challenges that need to be overcome. The study concludes that the transformation of management accounting roles towards a more strategic and collaborative direction is an important prerequisite for producing value-added and sustainable product innovations.

## 1. Introduction

In a modern business landscape characterized by technological disruption and fierce global competition, innovation is a vital element for the company's survival and growth. Innovation is no longer considered an additional activity, but rather as the core of the company's strategy, especially in creating value-added products. Value-added products are those that not only meet the basic needs of consumers, but also provide additional benefits that make them superior to competing products. These advantages can come from quality, function, design, sustainability, and brand image (Lin et al., 2021). This kind of product innovation cannot be achieved only through technical creativity alone, but requires a supporting information and control system, one of which is management accounting.

Management accounting is an internal information system designed to assist management in the process of planning, control, and decision-making. The traditional role of management accounting focuses more on providing cost data, variance analysis, and internal reporting. However, in the contemporary context, this function has shifted towards a more strategic and dynamic approach. Management accounting is now used to support innovation through the provision of information that helps evaluate the feasibility of new ideas, calculate product development costs, and estimate the potential added value generated. According to Weygandt et al. (2020), an effective management accounting system must be able to adapt to the needs of strategic decision-making, including in product innovation.

Product innovation, especially value-added ones, requires complex processes and large resources. This includes Research and Development (R&D), product

testing, design modification, and product launch to the market. Each stage requires careful financial and managerial considerations so as not to result in a waste of resources. This is where management accounting becomes a key tool that can bridge the gap between creative ideas and measurable business implementation. Systems such as Activity-Based Costing (ABC), target costing, and life cycle costing are very relevant to be used in managing innovation costs and optimizing decision-making (Maheshwari et al., 2021). In addition, management accounting also helps companies set prices that match the added value of the products offered, so that it can increase profit margins and customer satisfaction.

Companies that integrate management accounting into their innovation processes tend to have advantages in operational efficiency and market orientation. A study by Pasch (2019) shows that manufacturing companies that implement value-based management accounting systems can increase the success rate of product innovation and accelerate time-to-market. In addition, management accounting also encourages cross-departmental collaboration because it provides uniform and measurable information. This collaboration is important in creating products that truly value customers. Furthermore, information technology such as cloud-based accounting and business intelligence tools further strengthens the role of management accounting as an adaptive and data-based innovation support system (Appio et al., 2021).

Within this framework, this study aims to examine in depth how management accounting contributes to value-added product innovation. This literature review compiles and analyzes findings from various recent academic studies in last five years

to elucidate the relationship between managerial accounting information and innovative decision-making at the enterprise level. This study is not only academically relevant, but also has broad practical implications, especially for managers, accountants, and corporate policymakers in designing measurable and sustainable innovation strategies. This research is expected to be an important contribution to the literature on strategic accounting and innovation, as well as provide conceptual guidance for organizations that want to develop superior products with high added value in the era of knowledge and technology-based economies.

## 2. Literature Review

### 2.1. Management Accounting as a Strategic Information System

Management accounting has evolved from just an administrative tool to a strategic information system that is very important in supporting business decision-making. As an internal information system, management accounting not only presents historical data, but also provides useful analysis for decision-making at the operational and strategic levels. Drury (2020) explains that modern management accounting includes various functions such as financial planning, product profitability analysis, and overall organizational performance measurement. These functions are particularly relevant in a competitive business environment, especially when organizations face pressure to continuously innovate. In this context, management accounting is able to provide information related to the costs and potential value of each innovative strategy alternative that management considers.

This allows management to objectively evaluate the trade-off between the costs and benefits of an innovation, product or process.

Digital transformation has also encouraged changes in the role of management accounting. Information technology systems such as Enterprise Resource Planning (ERP) and Business Intelligence (BI) strengthen the role of management accounting in providing real-time and predictive data-driven information (Appio et al., 2021). With more relevant and accurate data, management can efficiently monitor and adjust innovation strategies. In addition, approaches such as strategic management accounting (SMA) shift the focus of accounting from short-term performance reporting to long-term value creation (Cescon et al., 2019). Therefore, management accounting is not only an evaluation tool, but also a strategic catalyst in supporting sustainable value-added-based innovation.

### 2.2. Value-Added Based Product Innovation

Value-added product innovation is an approach that focuses on the company's ability to create products that are not only technically superior, but also provide tangible benefits for customers. This added value can be in the form of new features, efficiency of use, sustainability, or a better emotional experience. Distanont (2020) emphasizes that value creation is the main foundation in product differentiation strategies. This means that innovation must pay attention to customer perception of the benefits obtained, not just creating new technologies. Therefore, in the product development process, evaluating the relevance and effectiveness of product features from the end-user's point of view is critical to ensure that the innovation truly enhances value.

Furthermore, the value-added innovation process requires thorough information support, from financial feasibility to technical and marketing aspects. De Toni et al. (2022) show that many innovation failures are caused by the company's weak ability to accurately measure the cost and value of new products. To avoid these failures, companies need to implement an integrated management accounting system, capable of combining technical, financial, and market data in a single analytical framework. Methods such as value engineering and customer profitability analysis have proven to be effective in aligning product development with customer expectations and needs. In this case, innovation cannot stand alone as an R&D function, but rather must be a multidisciplinary collaboration involving accounting and finance as providers of value and feasibility insights for innovation.

### 2.3. Integration of Management Accounting in the Innovation Process

The role of management accounting in supporting the innovation process is increasingly crucial amid the increasing complexity of product development and market pressures. The integration between accounting systems and innovation processes allows management to make more informed and strategic decisions. According to Dai and Vasarhelyi (2023), accounting information that is integrated in the innovation stage can help in making important decisions such as setting costing targets, evaluating return on innovation, and benchmarking against best practices in the industry. Accurate costing systems, such as activity-based costing (ABC), provide a realistic picture of the cost distribution in high-value activities. Thus, companies can identify areas of waste and allocate resources more efficiently to support innovative efforts.

Not only that, a Balanced Scorecard (BSC) as part of strategic management accounting can be used to evaluate the success of innovation as a whole. BSC expands performance measures not only from a financial perspective, but also from a customer, internal process, and organizational learning perspective. Research by Nielsen (2019) shows that companies that comprehensively adopt BSC are better able to maintain the pace of innovation and create added value in the long term. This shows that a management accounting system integrated in innovation serves not only as a provider of numerical data, but also as a strategic framework to drive sustainable value creation. Therefore, cross-functional collaboration between innovation, finance, and management teams is essential to create an innovation system that is effective and responsive to market changes.

## 3. Method

This study uses a literature review approach to analyze the role of management accounting in supporting value-added product innovation. This approach was chosen because it allows researchers to compile, compare, and synthesize the results of previous research in order to build conceptual understanding and find relevant relationship patterns. This literature study is descriptive-qualitative, with the main objective of exploring theories, models, and empirical findings from various scientific sources that have been published in the last five years. Thus, this study can provide an up-to-date overview of the development of management accounting theory and practice that is directly related to product innovation strategies.

The data collection process was carried out through a search of academic literature from the Google Scholar database, using keywords such as "management accounting", "product innovation", "value-added", "strategic cost management", and "innovation performance". The selected articles consist of reputable scientific journals, conference proceedings, as well as academic books relevant to the theme. To maintain the accuracy and focus of the study, only articles that meet the inclusion criteria have a main topic that discusses the relationship between management accounting systems and product innovation included in the analysis. The number of references used several articles, with a publication in last five years, in order to maintain the relevance and depth of discussion.

The analysis method used in this study is thematic analysis, which aims to identify and classify the main themes that emerge from the literature. Each article is analyzed to explore key concepts, managerial approaches, and empirical evidence related to the contribution of management accounting to value-added product innovation. This process is carried out systematically with stages: (1) reading and understanding the content of the literature, (2) coding data based on concepts or categories, (3) grouping findings into relevant themes, and (4) drawing conclusions and synthesis based on the linkages between themes. With this approach, it is hoped that a conceptual framework can be produced that describes the systemic relationship between management accounting and value creation in product innovation.

The methodology of this literature study is expected to be able to provide a strong theoretical contribution and become the basis for further quantitative

research and case studies. In addition, the results of this study can also be used by business practitioners and managers as a guideline in developing a management accounting system that is pro-innovation and oriented towards sustainable value creation.

## 4. Results

The results of this literature review show that management accounting plays an important role in supporting value-added product innovation through a systematic approach in cost measurement, provision of strategic information, and performance control relevant to value creation goals. In an effort to deliver products that are not only physically different, but also provide economic and emotional benefits to customers, companies need accurate, integrated, and flexible information systems (Sima et al., 2020). Management accounting exists as a foundation to support data-driven decision-making that is relevant to the context of innovation. Based on an analysis of several main literature sources published in last five years, it was found that the contribution of management accounting to product innovation can be grouped into five main roles: (1) planning and controlling innovation costs, (2) evaluating the feasibility and profitability of new products, (3) support for customer value orientation, (4) development of innovation performance indicators, and (5) strengthening cross-functional collaboration within organizations.

First, in terms of planning and controlling innovation costs, management accounting provides tools to identify and measure costs incurred during the innovation lifecycle, from the initial research stage to product launch. Systems such

as Activity-Based Costing (ABC) and target costing allow companies to map costs into specific activities that provide or do not add value. ABC, for example, is used to allocate costs based on resource consumption on activities such as design, prototyping, and testing, thus resulting in more accurate information about the contribution of costs to the final outcome (Maheshwari et al., 2021). Meanwhile, target costing is oriented towards market prices and customer value perceptions, where product costs are set based on desired profit margins and competitive selling prices. This allows the innovation team to develop the product within a certain cost limit without sacrificing the added value offered. A study by Drury (2020) also noted that this approach is able to reduce the risk of overdesign or cost wastage during the development phase.

Second, management accounting helps in evaluating the feasibility of innovation by providing an analytical framework to assess the potential returns of new products. Instruments such as break-even analysis, Net Present Value (NPV), and Internal Rate Of Return (IRR) are used to evaluate whether an innovative project is financially feasible. In this context, management accounting serves not only as a calculation tool, but also as a custodian of accountability for the allocation of innovative resources. The study by Cescon et al. (2019) emphasizes the importance of the Strategic Management Accounting (SMA) approach, which incorporates external variables such as competitor behavior, technological trends, and market demand dynamics into strategic considerations. With SMA, companies can design innovations that are not only profitable internally, but also relevant

externally. SMA-based evaluations provide a comprehensive insight into the strategic impact of each innovative decision.

Third, the results of the study indicate that management accounting supports value creation through alignment between costs, product design, and customer perception. In this case, the accounting system not only serves as a record of transactions, but also as a guide for the strategic direction of innovation. Approaches such as value engineering and customer profitability analysis allow management to evaluate the extent to which new features of a product add value from the customer's perspective and contribute to profitability. De Toni et al.'s (2022) study shows that organizations that use this approach are more successful in designing high-value-added products with a significant rate of return on investment. In other words, management accounting helps managers understand the impact of each design decision on the economic and psychological value of the product, as well as how it can be capitalized in the form of price and customer loyalty.

Fourth, innovation performance measurement systems are an important element in managerial processes, especially when companies face long and high-risk innovation cycles. Management accounting contributes through the use of tools such as the Balanced Scorecard (BSC) that allow organizations to measure performance not only from financial aspects, but also from the customer's perspective, internal processes, and learning capacity (Mio et al., 2022). With BSC, companies can monitor how effectively innovations are being accepted by customers, how efficient the development process is, and the extent to which internal learnings are generated from innovative projects. Research by Nielsen (2019) states that the consistent

application of BSC in innovation projects can increase transparency, accountability, and speed of adaptation to market dynamics. In addition, value-based performance measurement tools such as Economic Value Added (EVA) or value driver trees are also used to assess the contribution of innovation to the company's overall value creation.

Fifth, the integration of management accounting functions in cross-departmental teams is the key to the success of product innovation. Companies that include managerial accountants in the innovation process from the early stages show better performance in value creation and cost control (Pasch, 2019). Accountants no longer function simply as cost recorders or budget controllers, but as in-house consultants who provide data-driven strategic insights. Collaboration between finance, R&D, marketing, and operational functions has become more harmonious due to the common language formed by accounting data. A study by Appio et al. (2021) highlights the importance of the role of accounting information technology in strengthening this collaboration. With cloud-based systems and big data analytics, financial and non-financial information can be accessed in real-time and used collaboratively to accelerate innovation decision-making.

In addition to these five main contributions, the study also found that there are several obstacles that need to be overcome in order for management accounting to play an optimal role in product innovation. One of them is the lack of understanding of decision-makers on the strategic potential of managerial accounting information. Many organizations still separate the finance function from the innovation function, leading to delays in responding to market needs or failing

to measure the value created. Another factor is the limitation of accounting human resources in terms of analytical skills, digital literacy, and understanding of business strategies. Therefore, the literature emphasizes the importance of investing in cross-functional training and strengthening analytical capabilities in management accounting functions (Dai & Vasarhelyi, 2023).

Thus, the results of this literature confirm that the role of management accounting is not limited to cost reporting, but extends to the strategic function of designing, supporting, and evaluating product innovations. In the era of knowledge-based and digital economies, a dynamic, collaborative, and value-based management accounting system is an urgent need for companies that want to survive and grow through innovation. The full integration of innovation strategies and accounting information is the foundation for the creation of value-added products that are able to meet customer demands while creating a sustainable competitive advantage.

## 5. Discussion

The results of this literature study show that management accounting plays an important role in supporting value-added product innovation through the integration of financial information and value creation strategies. Management accounting is no longer limited to cost measurement and internal reporting functions, but has evolved into a strategic tool that brings together technical, financial, and customer dimensions in the innovation process (Oyewo, 2021). This indicates a paradigm shift from a transactional approach to a value and strategy

approach, where accounting information becomes the basis for every decision related to the design, development, and launch of new products.

One of the key findings of this discussion is the importance of proper cost systems, such as activity-based costing and target costing, in supporting the efficiency of the innovation process. The fee system helps companies identify value-added activities and streamline resource allocation, which in turn increases the success of innovations (Aithal, 2023). More than that, the use of evaluation tools such as strategic management accounting provides management with the ability to assess the strategic impact of innovation on the company's competitive position in the market. In this case, management accounting acts as a bridge between the internal needs of the company and the external expectations of customers and the market.

Performance measurement functions developed within the management accounting framework, such as balanced scorecards and value-based performance metrics, also play an important role. These indicators allow companies to evaluate the success of innovation not only from a financial perspective, but also from the perspective of customer satisfaction, internal processes, and organizational learning. This provides a more complete picture of the extent to which product innovations are actually creating added value as a whole. As stated by Nielsen (2019), adaptive management accounting is able to answer the challenges of innovation complexity in the digital and hypercompetitive era.

Nevertheless, this discussion also highlighted some of the challenges in the implementation of the strategic role of management accounting. The limitations of

integration between the accounting function and the innovation division are often an obstacle. Many companies still separate product development responsibilities from financial functions, resulting in information dislocation and weak coordination. On the other hand, the use of information technology in accounting, such as cloud-based accounting and big data analytics, is still considered not optimal in many organizations. In fact, the integration of this technology can accelerate access to cost, margin, and customer behavior information that is critical to supporting value-oriented innovation.

Considering the results of the literature findings, it can be concluded that management accounting has great potential to transform into a strategic partner in the innovation process. This potential can only be realized if companies build collaborative organizational cultures, progressively digitize accounting processes, and empower managerial accountants to contribute to the formulation and execution of product innovation strategies. Within this framework, management accounting will be able to play a role not only as a support system, but as a main catalyst in the creation of value-added and sustainable products.

## 6. Conclusion

This literature study concludes that management accounting has a very significant strategic role in supporting value-added product innovation. Management accounting no longer functions as a mere cost recording system, but has evolved into a managerial instrument that is able to provide relevant, accurate, and strategic information in the innovation process. Cost systems such as activity-based costing

and target costing contribute to the efficiency of resource allocation as well as cost control during product development. In addition, the strategic management accounting approach provides a strong analytical foundation for companies to assess the feasibility and strategic potential of a product innovation in the midst of market competition dynamics. The innovation performance measurement function developed through tools such as balanced scorecard and customer profitability analysis also allows companies to comprehensively evaluate the success of innovation, including financial, customer, internal processes, and learning and growth.

Cross-functional integration between accounting, marketing, and R&D teams has been proven to increase the effectiveness of innovation and strengthen product value orientation. However, to maximize the contribution of management accounting, companies need to overcome structural and cultural barriers that still limit this function in innovative processes. It is necessary to digitize the accounting system, improve human resource competencies, and create a collaborative organizational culture. Thus, management accounting can be a catalyst in creating product innovations that are not only technically superior, but also create sustainable added value for customers and stakeholders.

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