

The impact of management control tools on company performance

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Abstract:

Management control tools play a pivotal role in guiding, evaluating, and optimizing organizational performance. This abstract explores their impact on company success, delving into theoretical perspectives, critical analysis of tools, behavioral implications, technological advancements, and future implications. The multifaceted nature of these tools is examined through theoretical lenses like agency, contingency, institutional, system, and behavioral theories. Their effectiveness and limitations are dissected through critical assessments of tools like budgeting, Key Performance Indicators (KPIs), variance analysis, Balanced Scorecards, and Quality Management Systems. Conceptual frameworks and models, such as the Balanced Scorecard and Economic Value Added, offer structured methodologies to measure performance. The behavioral implications of these tools on employee motivation, autonomy, and decision-making processes are elucidated, underscoring their influence on organizational culture. Moreover, the role of information technology in reshaping management control tools is highlighted, discussing both the evolution of tools with technology and a critique of technology's role. Finally, future implications and conclusions emphasize the need for adaptive systems, integration of qualitative and quantitative measures, data governance, and ethical considerations, paving the way for more responsive and sustainable practices in management control.

Keywords: KPIs, Economic Value Added, data governance.

JEL Classification: L25, G32.

Paper type: Theoretical research.

Résumé :

Les outils de contrôle de gestion jouent un rôle essentiel dans l'orientation, l'évaluation et l'optimisation des performances organisationnelles. Ce résumé explore leur impact sur le succès de l'entreprise, en approfondissant les perspectives théoriques, l'analyse critique des outils, les implications comportementales, les avancées technologiques et les implications futures. La nature multiforme de ces outils est examinée à travers des lentilles théoriques telles que les théories de l'agence, de la contingence, institutionnelle, systémique et comportementale. Leur efficacité et leurs limites sont disséquées par des évaluations critiques d'outils tels que la budgétisation, les indicateurs clés de performance (ICP), l'analyse des écarts, les tableaux de bord prospectifs et les systèmes de gestion de la qualité. Les cadres conceptuels et les modèles, tels que le tableau de bord prospectif et la valeur économique ajoutée, offrent des méthodologies structurées pour mesurer les performances. Les implications comportementales de ces outils sur la motivation des employés, l'autonomie et les processus de prise de décision sont élucidées, soulignant leur influence sur la culture organisationnelle. En outre, le rôle des technologies de l'information dans le remodelage des outils de contrôle de gestion est mis en évidence, en discutant à la fois de l'évolution des outils avec la technologie et d'une critique du rôle de la technologie. Enfin, les implications et conclusions futures mettent l'accent sur la nécessité de systèmes adaptatifs, l'intégration de mesures qualitatives et quantitatives, la gouvernance des données et les considérations éthiques, ouvrant ainsi la voie à des pratiques plus réactives et durables en matière de contrôle de gestion.

Mots-clés : ICP, valeur économique ajoutée, gouvernance des données

Classification JEL : L25, G32.

Type d'article : Article théorique

1. Introduction

Management control tools encompass a diverse array of techniques and mechanisms utilized by organizations to steer, monitor, and optimize their operations toward predetermined objectives (Zanin et al., 2017). These tools are instrumental in facilitating the effective implementation of strategies, managing risks, and evaluating performance across various facets of an organization. Their significance is deeply embedded in the foundational role they play in shaping the trajectory and success of companies. At the core of management control tools lies budgeting and forecasting, which serve as the financial compass guiding resource allocation and strategy execution. Budgets delineate the financial roadmap, setting benchmarks for expenditure and revenue generation, while forecasting techniques provide insights into future trends, enabling proactive decision-making (Konstas et., 2023). Complementing these are Key Performance Indicators (KPIs), offering quantifiable metrics crucial for assessing performance against predefined goals. Variance analysis further refines this evaluation process by comparing actual performance with anticipated outcomes, facilitating corrective actions and realignment where necessary. The holistic perspective offered by tools like Balanced Scorecards amalgamates financial and non-financial metrics, providing a comprehensive snapshot of organizational performance (Kumar et al., 2023). By aligning strategic objectives with operational activities, these frameworks ensure a more integrated approach to control and measurement. Concurrently, quality management systems such as Total Quality Management (TQM) or Six Sigma underscore the significance of maintaining and enhancing product or service quality. They streamline processes, minimize defects, and enhance overall customer satisfaction.

The profound significance of these management control tools spans various critical dimensions within an organization. Firstly, they enable strategic alignment by ensuring that daily efforts and departmental activities converge toward overarching organizational goals. Moreover, these tools facilitate robust performance evaluation, forming the basis for reward systems, talent development, and necessary corrective actions (Volk, 2017). Their role as decision support systems cannot be understated, as they furnish decision-makers with precise and timely information critical for effective strategic choices, resource allocation, and process improvements. Equally pivotal is their contribution to risk management, allowing organizations to identify, assess, and mitigate potential threats to their objectives. By monitoring variances and deviations, companies can proactively address risks, enhancing resilience and adaptability. Ultimately, management control tools foster a culture of continuous improvement, constantly identifying areas for enhancement and innovation (Chenhall., 2015). Through regular analysis and adjustment, these organizations not only optimize their efficiency but also fortify their capacity to evolve in dynamic business landscapes.

In essence, the significance of management control tools transcends mere control and evaluation. They serve as catalysts for innovation, strategic growth, and organizational resilience, embodying the cornerstone of effective governance and performance optimization. Based on our state of the art, the objective of this article is to answer the following question: to what extent do management control tools affect performance management and contribute to continuous improvement within an organizational framework?

This report aims to dissect existing management control tools and their impact on company performance, scrutinizing theoretical frameworks, empirical evidence, and conceptual models. By evaluating diverse perspectives, identifying gaps, and assessing the limitations of these tools, the review seeks to provide a nuanced understanding of their efficacy. Ultimately, it strives to offer insights into refining theoretical approaches, guiding future research, and enhancing practical applications for optimizing organizational performance through judicious management control tool utilization.

2. Literature Review:

2.1. Research Hypotheses and Proposed Model:

2.1.1. Hypotheses Development

The exploration of numerous empirical studies sheds light on the intricate relationship between Management Control Tools (MCTs) and organizational performance. Based on this empirical review, several hypotheses can be formulated to guide our research:

Hypothesis 1: Enhanced Adoption of Management Control Tools (MCTs) correlates with Improved Organizational Performance.

The evidence from various studies indicates a positive association between the utilization of specific MCTs and the overall success of organizations. Therefore, we hypothesize that a comprehensive implementation or increased utilization of MCTs within an organization will result in improved performance across various indicators.

Hypothesis 2: Contextual Adaptation of MCTs is Key to Performance Improvement.

Contingency theory emphasizes the need to tailor MCTs to the specific contexts of organizations, considering factors like industry dynamics and environmental conditions. Hence, it is hypothesized that the effectiveness of MCTs in enhancing organizational performance is contingent upon their alignment with the unique characteristics and needs of each organization.

Hypothesis 3: The Mediating Role of Employee Motivation in MCTs and Organizational Performance.

Maharani (2021), study highlights the pivotal role of employee motivation as a mediator between management control and organizational performance. This suggests that certain MCTs influence motivation, which in turn impacts organizational success. Thus, it is hypothesized that employee motivation mediates the relationship between the use of specific MCTs and organizational performance outcomes.

2.1.2. Proposed Research Model

The proposed research model aims to illustrate and analyze the intricate relationship between Management Control Tools (MCTs) and Organizational Performance, considering potential mediating factors like employee motivation and contextual adaptations.

- Independent Variable: Management Control Tools (MCTs)
 - Components: Formal controls: performance measurement tools, monitoring systems, Informal controls: cultural controls, social norms.
- Mediating Variable: Employee Motivation
 - Consideration of specific control tools impacting motivation.
- Dependent Variable: Organizational Performance
 - Metrics: Financial performance, Innovation, Export Efficiency, Environmental outcomes

This model integrates the multifaceted impact of MCTs on various facets of organizational performance. It accounts for the necessity of adapting controls to organizational contexts and the potential mediating role of employee motivation in translating MCTs into performance outcomes.

2.1.3. Empirical review

The empirical review navigates through a myriad of studies, unraveling the intricate dynamics between management control tools (MCTs) and organizational performance. These studies encapsulate a spectrum of contexts, from Trimo's strategic adoption of management control systems to the impact of MCS on innovation, employee motivation, and sustainability practices. (Peljhan and Metka, 2008) highlighting a positive correlation between strategy change and enhanced performance, the research emphasizes Trimo's systematic adoption of comprehensive

management control systems (MCS). This shift towards growth-oriented practices is evidenced by the company's increasing utilization of MCS, particularly from 2002 onwards, aligning with its emphasis on balanced measurement systems and real-time monitoring of key performance indicators. The study contributes significantly by refining existing theories on MCS implications for organizational performance, emphasizing the criticality of performance-driven behavior and the holistic utilization of formal and informal controls.

On a meta-analysis of various studies, Alkhafaji et al., (2018) highlights the impact of MCS on areas such as export efficiency, innovation, and business strategy. For instance, the analysis emphasizes the influence of MCS on reducing uncertainty during product development, improving export efficiency, and tailoring MCS design to different service organizations. Additionally, investigations by Jamil & Mohamed, (2013) shed light on how MCS affects capabilities like market orientation, innovation, and differentiation strategies, particularly in family versus non-family businesses and in the context of environmental matters. Further, Carraro et al., (2019) aimed to identify critical management control tools for high-performing start-ups using a qualitative comparative analysis method. It highlighted the importance of managing clients, strategy, information systems, performance, risks, and budgets in achieving high performance, particularly in net income. The findings stressed the need for flexibility in control tools, indicating that the absence of certain tools can also be crucial, allowing for innovative approaches. The study's implications emphasize the necessity of adaptable management control tools rather than rigid adherence to specific ones. It provides insights into essential control practices for improved start-up performance and proposes a supportive model for incubated enterprises.

Maharani, (2021) fills gaps from prior research by confirming employee motivation's pivotal role as a mediator between management control and public sector organizational performance. Contrary to some hypotheses, certain controls, like personnel and action control, positively influence intrinsic motivation. Results control doesn't necessarily diminish intrinsic motivation. This challenges the notion that outcomes-focused control harms internal motivation. Practical implications suggest that personnel control, like training and autonomy, significantly impacts motivation. However, the study acknowledges survey biases and suggests future research on unexplored variables and individual characteristics influencing motivation.

Martins et al., (2023) found that Management Control Practices (MCP) significantly impact organizational success during crises, with CSR also playing a crucial role in guiding MCP usage. This aligns with existing research emphasizing MCP's role in monitoring performance and sustaining organizational success, even in challenging times. The study's implications highlight the potential of MCP as resources for bolstering sustainable organizational performance in a rapidly changing business landscape. (Duréndez et al., 2016) revealed a positive relationship between MCS utilization and business performance, aligning with prior research suggesting that implementing MCS can enhance overall company performance. This research adds valuable insights into the distinctive use of MCS between family and non-family businesses, highlighting the potential of MCS to significantly influence a company's success. It reinforces the principle that MCS can serve as a competitive advantage, directly impacting a firm's performance.

While laying focus on the sustainability edge, Henri & Journeault, (2010) underscores the importance of incorporating sustainability into control systems to enhance environmental outcomes. It suggests that while eco-control positively influences environmental performance, the direct translation of these environmental improvements into economic benefits for a company might vary across different organizational contexts. This study's relevance to company performance lies in the understanding that integrating sustainable practices within management systems can positively impact a company's environmental performance.

Corsi & Arru, (2020) also delves into sustainability management in Italian companies,

specifically focusing on Sustainability Management Control Practices (SMCP). It highlights a tendency among these firms to prioritize external sustainability disclosure for compliance and reputation rather than integrating sustainability values through SMCP. The presence of a sustainability department is seen as a strategic response to internal pressures and external expectations. Informal controls are prevalent, aligning with theories emphasizing intangible resources like organizational culture in sustainability management. Formal tools like Balanced Scorecard (SBSC) are underutilized, possibly due to a lack of normative pressure or knowledge about their implementation.

From Trimo's strategic shift to insights on innovation, motivation, sustainability, and crisis management, each study uncovers distinct facets of how MCTs influence and shape organizational dynamics. They collectively underscore the importance of adaptable, context-sensitive approaches in leveraging MCTs effectively. The synthesis of these findings urges a holistic consideration of formal and informal controls, urging organizations to tailor their strategies to unique contexts, thereby fostering sustained success and adaptability in an ever-evolving business landscape.

2.2. Theoretical Perspectives in Management Control

The theoretical underpinnings that shape the design and implementation of management control tools encompass a rich array of frameworks and concepts derived from various management theories. These theoretical foundations influence the rationale behind the creation, application, and adaptation of these tools within organizational settings.

2.2.1. Agency Theory

Agency theory, a cornerstone in understanding control mechanisms, posits that conflicts of interest arise between principals and agents. This theory underscores the importance of designing control mechanisms to mitigate these conflicts by aligning the interests of managers with those of shareholders (Otley, 2016). In the context of management control tools, agency theory emphasizes the implementation of monitoring systems, incentive structures, and performance measurement tools to ensure that managerial actions align with organizational objectives.

Research applying agency theory could delve into how specific MCTs, such as performance measurement systems and tailored incentives, effectively align managerial actions with the overarching organizational goals. This perspective invites exploration into how these tools not only monitor but also incentivize managerial behavior toward shareholder value creation, thus influencing organizational performance.

2.2.2. Contingency Theory

Contingency theory highlights the need to tailor management control tools to specific organizational contexts. It argues that there is no universal best way to manage organizations and that the effectiveness of control mechanisms is contingent upon various situational factors such as organizational size, structure, industry dynamics, and environmental volatility (Battilana & Casciaro, 2012). This theory advocates for flexibility in the design and implementation of control tools, emphasizing the adaptation of control systems to fit the unique needs and circumstances of each organization.

Research applying contingency theory could focus on investigating how different organizational contexts impact the effectiveness of various MCTs and identifying adaptable control systems that suit diverse organizational environments. It would entail how customization of control tools could enhance organizational performance by aligning with specific contextual demands and challenges within different organizational settings.

2.2.3. Institutional Theory

Institutional theory focuses on how organizations conform to external societal norms, values, and pressures. Within the realm of management control, this theory highlights the influence of external institutional forces on the adoption and implementation of control mechanisms. It suggests that organizations adopt certain control tools not only based on their internal efficiency but also to conform to external expectations and legitimacy. The institutional environment, including legal requirements, industry standards, and cultural norms, shapes the design and implementation of these tools.

While applying the institutional theory the study could delve into how organizations respond to external pressures when adopting MCTs and explore how these tools aid in aligning organizational practices with prevailing norms and expectations. It enables exploration into how compliance with external institutional norms through the adoption of specific MCTs contributes to enhancing organizational legitimacy and performance within various industries and socio-cultural contexts.

2.2.4. System Theory

System theory views organizations as complex systems comprising interconnected and interdependent parts. It emphasizes the interconnectedness of various elements within an organization and how changes in one part can affect the entire system. In the context of management control, this theory emphasizes the need for integrated and holistic control systems that consider the interdependencies between different departments, functions, and processes. It underscores the importance of feedback loops and communication channels within the organization to facilitate effective control.

Its application could focus on examining how integrated control systems that account for the interconnectedness of organizational elements impact organizational performance. Further, it helps examine how comprehensive control mechanisms that consider the organizational ecosystem foster efficiency, adaptability, and performance enhancement across diverse organizational functions and units.

2.2.5. Behavioral Theory

Behavioral theories focus on the human element within organizations and how individual and group behavior influences organizational performance. In the context of management control, these theories highlight the behavioral implications of implementing control mechanisms (Cuevas-Rodríguez et al., 2012). They emphasize the importance of considering how control systems may affect employee motivation, decision-making, and job satisfaction. Behavioral theories suggest that overly rigid or intrusive control systems can lead to employee resistance or unintended behavioral consequences, impacting the effectiveness of these tools.

Research applying behavioral theories in the realm of management control could explore how the design and implementation of MCTs influence employee behavior and organizational performance including how the balance between control and autonomy within organizational systems impacts employee motivation, behavior, and ultimately, organizational outcomes.

2.3. Analysis of Management Control Tools:

The effectiveness of specific management control tools varies across different organizational contexts, influenced by factors such as organizational structure, industry dynamics, culture, and the nature of operations. A critical assessment of these tools involves analyzing their performance, limitations, and challenges faced in their implementation.

2.3.1 Budgeting and Forecasting

Budgeting serves as a foundational control tool, aiding in resource allocation and performance

evaluation (Van Dooren et al., 2012). However, its effectiveness varies; traditional static budgets might hinder flexibility in dynamic environments, leading to suboptimal resource allocation. Flexible budgeting and rolling forecasts offer greater adaptability, enabling organizations to adjust plans according to changing circumstances. Challenges in budgeting include the time-consuming nature of the process, potential biases in forecasting, and the tendency for budgets to become rigid, limiting innovation. Moreover, aligning budgets with strategic objectives while ensuring accuracy poses a significant challenge, especially in uncertain environments.

2.3.2. Key Performance Indicators (KPIs)

KPIs play a crucial role in measuring organizational performance. Well-defined and aligned KPIs facilitate goal clarity and accountability, aiding in decision-making. However, their effectiveness depends on their relevance to the organization's strategic objectives and their ability to capture the holistic performance accurately. This tool isn't devoid of limitations as identifying appropriate KPIs can be challenging, often leading to an overemphasis on easily measurable metrics at the expense of broader strategic goals (Lee., 2023). Moreover, setting and monitoring too many KPIs can result in information overload, diluting focus and leading to ineffective decision-making.

2.3.3. Variance Analysis

Variance analysis compares actual performance against planned targets, providing insights into deviations. It helps in identifying inefficiencies and areas for improvement. Yet, its effectiveness lies in the organization's ability to interpret variances accurately and take corrective actions promptly. Challenges in variance analysis include the need for accurate data, potential biases in interpreting deviations, and the tendency to focus on short-term fixes rather than addressing underlying systemic issues. Moreover, in complex environments, isolating the cause of variances can be challenging.

2.3.4. Balanced Scorecard

The Balanced Scorecard integrates financial and non-financial metrics, offering a comprehensive view of organizational performance. Its effectiveness lies in aligning diverse measures with strategic objectives, fostering a more holistic approach to control and measurement. Implementing the Balanced Scorecard requires a significant cultural shift, and measuring non-financial metrics can be subjective and challenging (Benková., 2020). Moreover, there can be difficulties in selecting the right mix of metrics that truly capture the organization's strategic goals.

2.3.5. Quality Management Systems

Quality management systems like Six Sigma or Total Quality Management (TQM) aim to enhance product or service quality. Their effectiveness is evident in reducing defects, improving customer satisfaction, and fostering a culture of continuous improvement (Albuhisi, & Abdallah, 2018). Conversely, implementing quality management systems requires significant investment in training and cultural change. Moreover, sustaining the momentum for continuous improvement can be challenging, especially in organizations resistant to change.

3. Conceptual Frameworks and Models:

Conceptual frameworks and models serve as structured methodologies to evaluate and enhance organizational effectiveness through the prism of management control tools. These models, varying in complexity and focus, play a pivotal role in measuring the impact of such tools on company performance across diverse industries and organizational structures (Watts et al.,

2012). The Balanced Scorecard (BSC) stands as a widely embraced framework that integrates financial and non-financial metrics. Through its four perspectives, it offers a comprehensive view aligning strategic objectives with performance indicators, fostering a balanced approach to measurement across industries. On the financial front, Economic Value Added (EVA) resonates well with agency theory by emphasizing shareholder value creation. However, its sole focus on financial metrics might limit its scope in capturing holistic organizational performance. Activity-Based Costing (ABC) excels in providing precise cost allocations, particularly in manufacturing and service industries. Yet, its complexity might pose challenges, especially in smaller organizations with limited resources or industries with straightforward cost structures. The Theory of Constraints (TOC) identifies and addresses bottlenecks, enhancing efficiency—ideal for sectors with intricate processes or supply chains. Despite its systemic approach, its transition to service-oriented industries might face adaptation hurdles from its manufacturing-centric origins.

Each model brings its own challenges. EVA's emphasis on financial metrics might overlook qualitative aspects vital for long-term sustainability, while ABC's complexity could pose implementation difficulties. TOC's adaptability in service industries might require contextual modifications due to its roots in manufacturing. The context heavily influences the applicability of these frameworks. Smaller organizations may favor simplicity over comprehensive models, while service-oriented industries might prioritize customer-centric approaches. Integrative models that merge elements from various frameworks offer a nuanced understanding, aligning strategic goals with shareholder value and providing a holistic view of performance.

3.1. Behavioral Aspects:

3.1.1. Behavioral Implications of Management Tools

The utilization of management control tools significantly influences the behavioral dynamics within organizations, impacting employee motivation, autonomy, and decision-making processes. Understanding these behavioral aspects is crucial as it shapes how control mechanisms are perceived, accepted, and integrated into the organizational culture.

3.1.2. Impact on Employee Motivation

Management control tools can have multifaceted effects on employee motivation. On one hand, clear performance metrics and targets provided by these tools can serve as benchmarks, offering employees a sense of direction and purpose (Bodiako., 2016). When aligned with individual or team goals, they can motivate employees by providing a structured framework to evaluate their performance. However, an excessive focus on control and rigid monitoring systems might lead to adverse effects on motivation. Employees may perceive stringent controls as micromanagement, feeling constrained and distrusted. This can dampen intrinsic motivation, creativity, and initiative, especially in roles requiring autonomy and innovation.

3.1.3. Autonomy and Control Mechanisms

The implementation of management control tools often intersects with employees' autonomy in decision-making. While certain levels of control are necessary for organizational alignment, excessive control measures can impede autonomy, hindering employees' ability to make independent decisions (Elbanna., 2016). This can lead to a sense of disempowerment and demotivation among employees, particularly those in roles that require creativity, problem-solving, and adaptability. Balancing control with autonomy involves creating control mechanisms that provide guidelines and frameworks without stifling individual discretion. Empowering employees with the autonomy to make decisions within established boundaries fosters a sense of ownership and accountability, positively impacting job satisfaction and engagement.

3.1.4. Decision-Making Processes

Management control tools shape decision-making processes within organizations. When used effectively, these tools provide data-driven insights that aid in informed decision-making. Performance metrics, budgetary controls, and variance analysis offer valuable information to guide strategic choices and resource allocation. However, over-reliance on specific control tools may lead to tunnel vision, where decisions are solely driven by quantitative metrics without considering qualitative or long-term aspects. This can constrain creativity and strategic thinking, leading to short-term optimization at the expense of long-term organizational goals.

3.2. Behavioral Implications and Organizational Culture

The behavioral implications of management control tools reverberate through organizational culture. A culture shaped by these tools can foster a competitive environment, emphasizing achievement and performance (Martins et al., 2018). While this can drive results, it may also lead to a high-pressure atmosphere, impacting employee well-being and collaboration. Moreover, the way these tools are introduced and communicated within the organization affects employees' perceptions. Transparent communication about the purpose, benefits, and limitations of control mechanisms is crucial. It helps in managing expectations, alleviating resistance, and fostering a shared understanding of their role in achieving organizational objectives.

3.3. Mitigating Negative Behavioral Impacts

Organizations can take measures to mitigate negative behavioral impacts of management control tools. Providing opportunities for employee involvement in the design and implementation of control mechanisms can enhance acceptance and ownership (Truss et al., 2013). This participatory approach enables employees to contribute their perspectives, enhancing their sense of control and reducing resistance. Moreover, fostering a culture that values learning and development alongside performance metrics can mitigate the negative impact on autonomy and motivation. Emphasizing continuous improvement, providing feedback loops, and recognizing efforts beyond quantitative targets can balance the behavioral implications of control tools.

4. The Role of Information Technology

Advancements in information technology have revolutionized the design, implementation, and effectiveness of management control tools within organizations. These technological innovations have reshaped how data is collected, processed, and utilized, influencing the efficacy and scope of control mechanisms.

4.1. Evolution of Management Control Tools with Technology

Information technology has streamlined data collection processes, enabling the gathering of vast amounts of data from various sources in real-time (Lee et al., 2018). Automation, data analytics, and Business Intelligence (BI) tools have facilitated the collection and processing of both financial and non-financial data, enhancing the breadth and depth of information available for control purposes. Also, Enterprise Resource Planning (ERP) systems have integrated various organizational functions, consolidating data across departments. This integration facilitates a holistic view of organizational performance, enabling more comprehensive control mechanisms. Additionally, connectivity through cloud-based solutions has allowed remote access to control tools, enhancing flexibility and accessibility. Further, the emergence of advanced analytical tools such as predictive analytics and machine learning has enhanced the predictive capabilities of control mechanisms (Simons, 2019). These tools enable organizations

to forecast trends, identify patterns, and anticipate future outcomes, augmenting the proactive nature of management control.

4.2. Critique of Technology's Role

The reliance on technology-driven quantitative metrics may overshadow qualitative aspects critical for organizational performance. Solely focusing on quantitative data might neglect nuanced factors that contribute to overall success, potentially limiting the holistic effectiveness of control mechanisms. While technology offers sophisticated control solutions, implementing and managing these systems can be complex and resource-intensive. Integration issues, data security concerns, and the need for specialized expertise pose challenges that may hinder the smooth implementation of these tools. The abundance of data generated by technology does not guarantee its quality or relevance. Ensuring data accuracy, relevance, and integrity remains a challenge. Moreover, interpreting complex data outputs requires skilled analysts, and misinterpretation can lead to erroneous conclusions affecting decision-making.

4.3. Future Implications

Organizations must continually innovate and adapt their control mechanisms to leverage technological advancements. Investing in emerging technologies and fostering a culture of innovation allows organizations to stay ahead and derive maximum benefits from evolving control tools. Also, striking a balance between quantitative and qualitative measures is imperative. While technology provides vast quantitative data, organizations should integrate qualitative aspects to provide a more comprehensive view of performance.

Ensuring data quality and interpretation requires robust data governance frameworks and skilled personnel. Organizations should invest in data governance practices and training programs to enhance data quality and interpretation capabilities. As technology evolves, ethical considerations and data privacy become paramount. Organizations must prioritize ethical use of data and comply with regulations to maintain trust and credibility while utilizing technological advancements in control tools.

5. Conclusion

The exploration of theoretical perspectives on management control tools and their influence on company performance unveils a diverse landscape that underscores the intricate interplay between organizational strategies, human behavior, and control mechanisms. From traditional theories like agency and contingency theory to the evolving insights from behavioral perspectives, this review illuminates critical facets guiding our understanding of management control. One of the prominent takeaways from these theoretical perspectives is the acknowledgment of the multifaceted nature of control mechanisms. The emphasis on aligning managerial actions with organizational objectives while considering contextual factors highlights the complexity inherent in designing effective control systems. Moreover, the integration of behavioral insights accentuates the importance of considering human motivations, autonomy, and decision-making processes in the implementation of these tools.

As organizations navigate an increasingly dynamic and uncertain landscape, the need for adaptive control systems becomes evident. The theoretical underpinnings pave the way for future developments that are agile, flexible, and responsive to changing environments. The call for integration across diverse theories and disciplines signifies the importance of a holistic approach that encompasses the interconnectedness of various organizational facets. Continual theoretical refinement emerges as a crucial mandate. It encapsulates the need to incorporate behavioral insights, adapt to dynamic environments, integrate ethical and sustainable practices, embrace technological advancements, and conduct longitudinal and comparative studies. This

ongoing refinement ensures that theoretical frameworks remain relevant, adaptable, and capable of addressing the evolving complexities within organizations and the broader business realm. In summation, the theoretical insights gleaned from this review underscore the pivotal role of management control tools in organizational governance and performance. The amalgamation of diverse perspectives and the ongoing refinement of theoretical frameworks hold the key to developing more nuanced, adaptive, and effective control mechanisms. By embracing a continual pursuit of theoretical advancement, organizations and researchers can pave the way for more responsive, ethical, and sustainable practices that navigate the complexities of modern business landscapes.

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