



RESEARCH ARTICLE

Integrating Human Capital into Management Control Systems: Enhancing Strategic Alignment and Organizational Success

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ABSTRACT

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This study explores the intersection of human capital and management control systems (MCS), highlighting their critical role in achieving organizational success. Human capital, encompassing the skills, knowledge, and abilities of the workforce, has become a key driver of productivity and innovation. MCS, on the other hand, are the mechanisms through which organizations align their strategies with operational activities to ensure goal achievement. By reviewing theoretical frameworks such as the Resource-Based View (RBV) and Agency Theory, this study illustrates how human capital can be leveraged as a unique resource within MCS to create sustainable competitive advantage. The study further explores empirical evidence demonstrating the use of advanced metrics to measure human capital, the integration of technology like HR analytics and AI tools, and case studies from industries such as technology and healthcare that showcase how tailored MCS frameworks can improve employee performance and innovation. Practical implications emphasize the need for organizations to design MCS that align human capital management with strategic objectives, balance control with employee empowerment to enhance engagement, and commit to continuous updates of their systems to adapt to changing workforce dynamics. However, the study acknowledges limitations, including the variability across industries, the challenges in generalizing findings, and the potential ethical concerns related to performance monitoring. Overall, this review aims to offer valuable insights for researchers, managers, and policymakers by proposing ways to integrate human capital effectively within MCS, fostering strategic alignment and sustained organizational success.

1. INTRODUCTION

1.1. Context and objectives

In today's dynamic global economy, organizations operate in environments characterized by rapid technological advancements, intense competition, and a growing emphasis on innovation and knowledge creation. Human capital—the collective skills, knowledge, and abilities of an organization's workforce—has emerged as a pivotal driver of organizational success. As intangible

assets, human capital plays a central role in enhancing productivity, fostering creativity, and maintaining competitive advantage.

In knowledge-driven economy, human capital is increasingly recognized as a cornerstone of organizational success. Defined as the collective skills, knowledge, and abilities of an organization's workforce, human capital directly influences productivity, innovation, and competitive advantage. Simultaneously, organizations employ management control systems (MCS) to ensure that strategic objectives are met through structured processes, tools, and performance metrics.

Management control focuses on ensuring that the organization's various parts are integrated in a way that supports strategic objectives. HRM refers to the systems and practices designed to achieve effective employee utilization by creating an environment where the employee can work with enthusiasm while adding value to the organization. Management control and HRM are two important building blocks of strategy implementation, and their effective integration is crucial if the organization is to succeed in the long term. Our approach encourages us to consider the different aspects of human resource management and their relationship to the wider aspects of management control.

Human resources issues represent two sides of the same strategic coin. While management control involves alignment of organizational systems and structures with strategic objectives, HRM supports this through a focus on people. At a basic level, HRM practices are needed to ensure that employees are both able and willing to contribute towards the organization's strategic objectives. These two aspects of HRM will be developed later in the chapter. Our aim is to develop a conceptual understanding of the relationship between HRM and management control, drawing from the varying contextual and normative perspectives. Our discussion does not consider country-level moderations using dimensions such as national culture or labor legislation. Differences in countries reflect variations in the overall business environment and require different strategic responses.

The convergence of these two domains raises a critical question: How can organizations effectively harness their human capital to achieve strategic alignment through MCS? Addressing this question requires a nuanced understanding of both the tangible and intangible aspects of human capital and the role of MCS in managing these assets. This review seeks to illuminate this intersection by exploring the theoretical foundations, empirical insights, and practical applications of integrating human capital into MCS. By doing so, it aims to provide a roadmap for organizations striving to optimize their workforce while maintaining strategic coherence.

The primary objective of this study is to examine the intersection of human capital and management control systems, providing a comprehensive understanding of how these two domains interact to influence organizational effectiveness. Specifically, the study aims to: Explore theoretical frameworks that explain the role of human capital within MCS and Analyze empirical evidence on the integration of human capital metrics into MCS. The study seeks to contribute to both academic literature and practical applications, offering valuable insights for researchers, managers, and policymakers.

1.2. Definitions and Concepts

Human Capital: Refers to the collective skills, knowledge, abilities, and attributes possessed by individuals that contribute to their economic productivity. Human capital is often viewed as a critical asset that organizations must nurture and optimize to achieve strategic goals. According to Becker (1964), human capital is a key driver of economic growth, emphasizing the investment in education and training as essential for enhancing workforce productivity.

Management Control Systems (MCS): Encompasses the tools, processes, and structures that organizations use to ensure that their activities align with strategic objectives. MCS includes performance measurement, budgeting, incentive systems, and operational controls (Anthony &

Govindarajan, 2007). Kaplan and Norton (1992) also highlight the balanced scorecard as an effective MCS framework that aligns performance measures with strategic goals.

This paper intends to contribute to the integration of human resources management (HRM) and the studies on control within the accounting and administrative area. It attempts not only to define these two spheres but also to present a study model. It also discusses prejudices associated with the instrumental vocation of HRM, the ambiguity of control, and the solutions pointed out as the necessary foundation for the approach suggested by the text. The possibility of interference in this traditionally descriptive junction associated with the search for sound and consistent legal and technical principles can be influenced by the model used, propitiating public and objective comparisons.

The transcendence of the human being and his or her functions differentiates human resources management as an extremely social and normative phenomenon from mere biological aspects. It is true that it represents the dimension of human elements within organizations, but it should be seen independently from dead attributes, as it is too often designed in organizational charts. If we believe that people are vital to enterprises and that organizations should be managed to encourage progress, justifications for estrangement disappear and responsibilities make up HRM. The expressions control and management should be employed with caution since they contain various meanings. The specialized literature maintains the discussion exasperatedly either to determine if this concept is broader than the other word or to propose dichotomies such as, for example, rigid versus not rigid, economic versus social, centralized versus decentralized, and punitive versus scientific.

2. Theoretical Frameworks in Management Control and Human Resources Management

This article aims to identify the relationships between Management Control (MC) and Human Resources Management (HRM) as two central elements of the organizational architecture. The first part presents the theoretical foundations of the management control theories and human resource systems. The second part focuses on the identification of these relationships. This identification is done, on the one hand, at the strategic level and, on the other hand, at the operational level. I propose three strategic relationships: legitimacy, cooperation, and shareholder value; and two operational functional linkages, namely the operationalization of the instruments and the implementation of the rules. I believe that this work could help understand that functional specialization is inevitable in large organizations. If specialization is not generally conducted as advocated, the lack of functional specialization may involve some distortion and a decrease in legitimacy. Ideally, this article encourages the actors to act by imitation, symmetrical imitation, or isomorphism, which is consistent with the proposals of the New Institutional Sociology.

Advocates that the decentralized structure, flexibility, and quickness of decision-making are more important than the quality of the decision. In order to correct this drift, the enterprise should implement supplementary devices characterizing a formal structure and referent standards capable of practicing control. This formal structure and these standards include: module standards, decision standards, performance standards, and monitoring standards. In this study, I have chosen a functional approach, which does not neglect the role of administrative management but insists on the fact that the superior must monitor only what is necessary. It proposes that a reporting system should consist of a small number of standard management tools, adapted and known by everyone. If the PMS is able to display relevant information likely to guide decisions, then it can be trusted. There is coherence in the strategic thoughts. The PMS refers to a limited group of actions, events perceived as key elements, and thus, interesting.

Establishes a coherent match between the profile of the organization, its environment, and the tenets of HRM. Each method fulfills a function, a role. The need to ensure the efficiency of the organization

could dictate the use of profitable policies, or at least to avoid any method that could be prejudicial. The employee could react more readily if he judges that the method is respectful of his personal values. A coherent HR method should allow for the distribution of performances (in terms of client satisfaction, for example), show the past evolution of the firm, dictate an acceptable strategy, and define access to knowledge. Coherency is reflected in three choices: those of a labor strategy, a *modus operandi*, and the introduction of practices that respect the values perceived by the employees. This contribution tends to demonstrate that the HRM strategy cannot be set independently of the entrepreneurial strategy. It explores the possibility of a personalized value of labor in accordance with the perception of the employees regarding this value. The management of personnel is also built; it presupposes an open organization, an evolved managerial behavior through the development of an appropriate policy, and the mark of exemplarity on behalf of the management. The personality of the members of the company is a hidden factor that influences the behavior of the employees and, therefore, the firm policies. There is coherence; the ambition is to explain why the employee would not have a *modus operandi* much different from that of the firm. In other words, why the company culture influences and conditions human behaviors. There is the creation of a variable that was not taken into account and which has sometimes major repercussions: individual behavior.

2.1. Agency Theory

This theory examines the relationship between managers (agents) and employees, as well as between managers and shareholders (principals), focusing on aligning incentives and reducing agency costs to prevent conflicts of interest. Agency Theory, developed by Jensen and Meckling (1976), posits that in organizations, principals delegate authority to agents who are tasked with making decisions on their behalf. However, agents may act in their own self-interest rather than in the best interest of the principals, leading to potential inefficiencies known as agency costs. Management control systems (MCS) play a critical role in mitigating these issues by establishing structures that align agents' behavior with the strategic objectives of the organization, such as performance-based incentives, monitoring systems, and clearly defined roles and expectations.

When they initially published their extensive literature review and thought-provoking theoretical propositions, they masterfully crafted the foundational structure for conceptualizing agency costs and setting the stage for the evolution of agency theory within the realm of organizational studies. Their groundbreaking contributions not only brought forth a comprehensive understanding of the concept of the firm and other organizations from an economic standpoint but also proposed a novel research agenda that specifically pertained to the intricate domain of corporate finance. Furthermore, they astutely addressed inherent shortcomings within traditional management costing theory, thereby shedding light on the pressing issues that needed to be tackled. It is important to note that this revolutionary approach can be categorized as an *ex post* science, mainly due to its emphasis on analyzing contract terms rather than solely focusing on contract design. By skillfully establishing the intricate connections between residual rights, rights pertaining to residual cash flows, cost rates, and ownership, they artfully illustrate the undeniable separation that unavoidably arises between ownership and control.

Examples and Case Studies:

- **Tech Industry:** Companies like Google implement MCS that tie employee performance to bonuses and stock options, effectively aligning the goals of individual agents with those of the organization. This reduces agency costs and motivates employees to act in ways that contribute to company success.
- **Healthcare Sector:** In hospitals, MCS that align physician incentives with patient outcomes can reduce agency conflicts where doctors may prioritize their financial gain over patient care. By linking compensation to performance metrics such as patient satisfaction and

successful procedures, hospitals ensure that physicians' interests align with the organization's goals of quality care.

Management Control Systems (MCS) play a crucial role in mitigating these agency costs by creating frameworks that align the interests of employees with organizational objectives. This alignment can be achieved through incentive systems, performance monitoring, and the clear establishment of roles and expectations. MCS ensures that employees' behaviors contribute positively to the organization's strategic goals, thus fostering trust and cooperation between management and workforce. For example, performance-based bonuses or stock options can motivate agents to prioritize company objectives, while performance appraisal systems help principals monitor progress and make adjustments when necessary.

By strategically implementing MCS, organizations can effectively manage and control human capital, leading to enhanced productivity and reduced costs related to agency problems.

2.2. Resource-Based View

The Resource-Based View is a strategic management theory that posits that an organization's resources and capabilities are key to achieving a competitive advantage and superior performance. This perspective was notably advanced by Wernerfelt (1984) and further expanded by Barney (1991), who argued that resources must be valuable, rare, inimitable, and non-substitutable (VRIN criteria) to provide sustained competitive advantage.

Human capital is seen as one of the most critical intangible resources within an organization. It encompasses the knowledge, skills, experience, and creative potential of employees. When effectively managed and leveraged, human capital can significantly contribute to an organization's ability to innovate, adapt, and achieve strategic objectives, thus providing a sustainable competitive edge.

Management Control Systems (MCS) play an essential role in optimizing human capital by facilitating the tracking of employee performance, development, and alignment with strategic goals. MCS tools, such as balanced scorecards, performance metrics, and continuous feedback systems, help monitor and develop the workforce in ways that align with the organization's strategic vision. For example, implementing training programs and performance reviews ensures that human capital remains a valuable asset and contributes to long-term growth.

By systematically incorporating human capital management into MCS, organizations can ensure that their workforce is not only aligned with current objectives but is also continually developed to meet future challenges. This strategic integration reinforces the idea that human capital, when managed effectively, is a source of sustainable competitive advantage that cannot be easily replicated by competitors.

First, it is proposed to look at some theoretical models. By considering the proposal to ponder management control from the resource-based view, attention must be turned to the concepts of resources. The resource-based view views the firm as a clear set of unique resources and abilities that give it a position of sustained growth in the competitive landscape, constituting forces that translate the advantages demanded. Many factors can affect sustained competitive advantages — barriers to entry, economies of scale, customer loyalty, information asymmetry, or cost advantage, to name a few — but the one relatively less addressed is the culture that, working as a control system, is able to bring more discipline into the life of the organization, aligning people with the strategy.

The possibility that culture can operate as a control system, which can affect the behavior of the members of the organization, is based on the premise of the central role of individuals in the theory of the resource-based view. The resources or competencies of an organization are responsible for sustaining the level of earnings above that of normal return. For that, the resources must satisfy some requisites, one of which is irreplaceability. Given that it refers to the human resources or abilities

important for the competitive strategy, the capacity to create and maintain a good organizational culture is a strategic value for an organization. In fact, the human resource-based view aims for the identification and development of the unique human abilities of an organization's staff and the human resources management practices responsible for promoting competitive advantages. However, much like the traditional theory on resources, the resource-based view does not identify many observable factors capable of affecting sustained competitive advantages. For that, it would be interesting to look for some possible mechanisms to align the individual with the strategy, to create conditions to monitor behavior worthy of the minimum of confidence.

3. Practical Applications of Management Control in Human Resources Management

There are a series of practical applications of management control that can be analyzed in the field of human resources management. The first aspects on which it can be applied are the strategic objectives of human resources, to analyze, through indicators, the fulfillment of the objectives established in the management plans. As part of this strategic dimension, it can be an objectives accomplishment analysis, both individually and in teams. Also, training and development are equally important dimensions. A second and equally important aspect is related to the motivation of the human factor, for which it can be simulated, like in other dimensions, the linkage of incentives with objectives, particularly those in the area of performance evaluation. Aspects to be considered are economic incentives, the connection between performance and career, and the purposes of the company, which can be shared with the employees. These incentive systems should be at the center, while currently the indicator that most companies use is the existence of a career system. What is intended to be measured are the compensation policies, with the remuneration, which is an essential part of any personnel management system. Their use and the flexibility of these systems can also become a key indicator in the management control of HR.

3.1. Performance Measurement and Incentive Systems

In this section, we will discuss three influential incentive systems and their potential pitfalls: pay-for-performance systems, the use of work teams, and the implementation of high-performance work systems. Pay-for-performance systems are the most direct way to align employees' objectives with company goals. This is because the formula determining wages takes account of the same variables that are used to assess the job the employee performs. While piece rates are a type of pay-for-performance system, almost half as many employees attain income through some sort of pay-for-performance scheme. Some companies employ the use of subjective performance evaluations to study the performance of their employees, a practice that may have decreased the incidence of piece-rate payment methods. Finally, employees working under pay-for-performance systems generally earn more money and accrue higher work satisfaction.

Under high-performance work systems, employees get involved in such areas of decision-making as training, problem-solving, and scheduling. Lastly, employees may be involved in creating long-term plans to take into account the company's performance. Work teams are a simple way to install management control based on decentralized planning and controlling principles. A central management control benefit of the use of work teams, as well as of high-performance work systems, is that they tightly align employee effort incentives with company goals. Indeed, the economics of organization theory highlights that adding job characteristics implying that employees get involved in creating objectives, methods, and schedules, that they can use their skills, and that they receive frequent, detailed information can be expected to increase an employee's marginal utility of additional effort. This holds both in the case of simple and in the case of complex tasks.

First, as margins of discretion and task complexity vary across employees, it is impossible to implement work teams in a non-discriminatory way. These differences should be accounted for by a mix of payment systems when the problem of fairness and, in the context of pay-for-performance,

strategic observation is taken into account. Second, decision problems related to planning, diversification, and influence behavior will prevent us from putting all control eggs into the work team basket, especially when we add issues of managerial authority determination and supervisory control concerning service commitments, output quality, and training, as well as issues concerning the intellectual property of the results of the work. Supervising and managing work teams may also require changing the profile of everyone's job in the same work area as well as its payment system. The design of work teams is nontrivial. Lastly, the respondent protection liability can limit the benefits of integrating management control and HRM.

3.2. Empirical Evidence

According to the number and nature of findings about the relationship between management control and HRM, I propose to draw on a theory. First, it describes the fittingness of diagnostic control as dependent on the industry in which the company operates, the level of structure in work processes, the mental models HRM holds about what motivates and energizes employees, and the level of skill that the employees have. Similarly relevant, it refers to the culture existing within HRM, the level of trust HRM holds both in the operating strategy and in the employees, and the subjectivity involved in efficiency assessment regarding the specific control employed.

In line with these factors, a negative correlation is found between beliefs about the capacity of employees in terms of both motivation and skills recognized by HRM and the level of prescription of employee-targeted control by accounting and control systems. The control perceived as limiting employee autonomy is shown to be abundant. Furthermore, beliefs and trust are also found to play a mediation role for both control systems containing subjectivity but perceived as better respecting the capacity of employees and the enhanced perception of economic performance improvement as its consequence. As a consequence, the impact of control systems on perceived performance improvement is moderated by the HRM function's beliefs and trust in what were controlling informal systems.

4. Challenges and Opportunities in Integrating Management Control and Human Resources Management

Despite the call for an integrated approach to managing people, in practice, the tendency is to separate management control and human resources, with the MDHR function and management accounting practices taken as opposites in the eyes of academics, policymakers, and managers in the practice field. Despite the evident benefits of integrating management accounting and human resources in managing people at all levels of the organization, integration is a complex process in which managers play a crucial role. This chapter discusses the challenges and opportunities for integrating management control and human resources, underlining management roles and responsibilities in this process. This integration provides an opportunity to design a compensation system that emphasizes not only profit, service, and learning but also employee engagement and good citizenship, as well as traits and motives behind personality. Concerns about excessive focus on formal goals in management control will diminish as employee goals become responsive to formal organizational goals. The analysis will show that these proposals are not only consistent with the control aspects of management control but also resurface principles established in previous periods to motivate employees. The specific roles of smartphones, web apps, and social media in developing a new platform that can better integrate management control and human resources are discussed. Data security is a concern.

4.1. Cultural Differences and Organizational Context

In a globalized world where multinational companies have a growing weight within economies, it is essential to recognize the importance that cultural differences have not only for strategic policies but also in the performance evaluation process of their employees. American companies cannot deny the

realities and the needs of the other countries in which they operate, giving this issue an ever-increasing relevance. There is a set of national cultural differences characterized both at the macro level and the micro level of companies that influence their political direction and how the companies achieve that direction. These differences manifest themselves in the structure, systems, control processes, and management style of companies and contribute to the establishment of unique national cultures within each organization. Five dimensions of culture include work conditions, leadership and supervision structure, managerial practices, reward allocation, and employee interaction. Culture frames the logic of operation so that corporate policies become proactive and affirmative beyond the legally regulated minimum level. Firms in different countries will sympathize with the clash of their dichotomous forces if they clearly identify their specific operational methods. Firms therefore specify their model of operation explicitly in management, thus maximizing opportunities for personal control and minimizing work-related stress.

In this context, with the world more open to cultural differences and an exponential increase in capital mobility, it is possible to see a growing business trend with greater development of multinational companies. For them to succeed and maintain their competitive position, they cannot fail to recognize host countries and employees working with spirit. The accounting definition of performance is broader and more formal when considering that the evaluation process involves an understanding phase of the diverse meanings that each individual gives to the work and its role in the organization. Knowing that individual value systems are influenced differently by cultural factors, our testable hypothesis is that the HRM focus of an American subsidiary in a culturally distant host country will still be significantly influenced by the nature of the home country, given that the critical causal relations among human resources and organizational performance across cultures might differ significantly from those typically perceived to exist in more comparable cultures. Misunderstanding and conflict can result if these differing value systems are not recognized and responded to by managers who are expected to help attain the goals and generate the profits of their nation-based company.

4.2. Others studies and researches

Bouquin adds that current research has mainly focused on the link between management control and the recruitment of human resources, or on the subjects of performance and pay, without addressing the management of careers, the management of talent, or that of competencies. This thorny problem was raised by some who tried to emphasize the importance and interest of the link between management control and human resources management. It was found that the measures of management control used in companies are poorly elaborated and not very effective. It is observed that the majority of the systems motivate more the piloting of short-term and high-octane improvement plans than a long-term improvement of performance.

Similarly, the majority of research has been carried out on studying the use of a certain management control system or on analyzing costs and human resources. The impact of other measures practiced by the company is, however, less known. The implementation of the management control system forced the company into a period of turbulence. The idea of management control consists of agreeing upon all or parts of the capital of the company's actors or interested parties so that they accomplish actions that will allow the company to achieve its objectives by contributing to the satisfaction of its own actors. The company appears to be structured as a gathering of control centers, where factual data coming from the workings of the company is treated in order to put decision-makers face to face with their responsibilities. The pursuit of economic objectives in a context of business financial crisis indicates that management control systems are generators of both motivation for the actors and creation of value and wealth for the company.

4.2.1. Exploring the integration of human capital and management control systems

Numerous studies have explored the integration of human capital and management control systems, offering diverse perspectives on how these elements contribute to organizational effectiveness and competitive advantage. Below, we review some of the key findings and insights from existing literature:

- **Human Capital Measurement and MCS Integration:** Research by Flamholtz et al. (2002) has highlighted the importance of aligning human capital management with MCS to ensure that workforce-related metrics are incorporated into broader performance assessments. This alignment enables companies to track not only financial outcomes but also the development of employee skills, knowledge retention, and productivity improvements.
- **Impact of HR Analytics on MCS:** The advent of HR analytics and big data has significantly impacted how MCS are applied to human capital management. Studies by Marler and Boudreau (2017) demonstrate that leveraging data-driven decision-making helps organizations optimize talent acquisition, development, and retention strategies. HR analytics can be integrated into MCS to track key performance indicators, predict future talent needs, and evaluate the effectiveness of training programs.
- **Strategic Human Resource Management (SHRM):** The SHRM approach, as discussed by Wright and McMahan (2011), emphasizes aligning HR practices and human capital management with the strategic goals of the organization. This body of work suggests that MCS should incorporate SHRM principles to ensure a comprehensive approach where human capital is nurtured as an asset that supports long-term strategic initiatives.
- **Contingency Approaches in MCS and Human Capital:** Research by Chenhall (2003) supports the notion that MCS effectiveness is contingent upon contextual factors such as organizational size, industry, and culture. This view is important when considering human capital, as different environments may require varying MCS designs to effectively manage and develop the workforce. For instance, high-tech firms may need more flexible and adaptive MCS compared to more traditional manufacturing organizations.
- **Case Studies and Industry Insights:** Empirical research in industries like technology and healthcare provides practical insights into how MCS can be tailored to human capital needs. For example, a study on tech companies by Collins and Smith (2006) showed that firms prioritizing human capital development through robust MCS frameworks experienced higher levels of innovation and employee engagement. Similarly, healthcare organizations that integrate MCS to monitor staff performance and training outcomes reported improvements in patient care and operational efficiency (e.g., Ghosh and Gurunathan, 2019).
- **Challenges and Ethical Considerations:** Research by Ball (2001) and others has pointed out that while MCS can enhance productivity and alignment, they must be carefully designed to avoid over-surveillance and privacy violations, which can diminish morale and create trust issues among employees. Studies on ethical management control practices emphasize the importance of balancing performance monitoring with respect for employee autonomy.
- **Sustainability and Human Capital:** With increasing attention on sustainable practices, research by authors such as Bansal and Roth (2000) suggests that integrating sustainable HR practices within MCS can promote long-term organizational success. This

includes ensuring that human capital strategies align with broader sustainability goals, fostering not just economic growth but also social and environmental contributions.

These studies collectively underscore the multifaceted relationship between human capital and MCS, highlighting how strategic alignment, data-driven insights, and context-specific approaches are critical for optimizing human capital management in today's complex business landscape.

4.2.2. Empirical Evidence

Research into the integration of human capital and management control systems (MCS) has provided compelling insights and evidence that illustrate their impact on organizational success. Below are some key findings from empirical studies:

Human Capital Metrics:

- The use of advanced human capital metrics has become increasingly widespread as organizations recognize the need for quantifiable data to assess workforce value. Metrics such as employee performance evaluations, training effectiveness, skill acquisition rates, and retention rates are now embedded in MCS to provide a comprehensive view of workforce contributions.
- Studies by Becker and Huselid (1998) have demonstrated that organizations that implement well-designed human capital measurement systems tend to see better financial outcomes. These metrics allow organizations to identify skill gaps, enhance training programs, and make data-driven decisions about workforce management.
- Performance metrics have proven to be particularly valuable in industries with rapidly evolving skill requirements, such as information technology and healthcare, where measuring employee learning and adaptability is essential for maintaining competitive advantage.

Integration with Technology:

- The integration of technology into MCS has transformed how human capital is managed. HR analytics, big data, and AI-driven tools have enabled organizations to make predictive analyses regarding workforce needs, performance trends, and talent management strategies.
- Research by Angrave et al. (2016) has highlighted how the implementation of HR analytics has facilitated more strategic decision-making by providing real-time insights into employee behavior, satisfaction levels, and performance. This technological advancement has allowed MCS to be more dynamic and responsive, aligning workforce capabilities with organizational needs in an agile manner.
- AI-powered tools are increasingly used for predictive modeling, helping organizations anticipate future talent shortages, identify potential leaders, and optimize staffing decisions. For example, companies like Google and IBM have leveraged machine learning algorithms to analyze employee data, improving workforce planning and enhancing overall productivity.

Case Studies:

- **Technology Industry:** A case study by Collins and Smith (2006) on leading tech companies found that those implementing tailored MCS frameworks that integrate human capital management practices experienced higher levels of innovation and

employee engagement. Companies that used MCS to track individual and team performance, alongside continuous feedback loops, were able to foster a culture of innovation that was key to their competitive success.

- **Healthcare Sector:** Research on the healthcare industry by Ghosh and Gurunathan (2019) indicated that hospitals and medical centers using MCS to monitor staff performance and training outcomes reported significant improvements in patient care and operational efficiency. Tailored MCS frameworks, such as those incorporating skill assessments and outcome-based performance metrics, were crucial for aligning workforce capabilities with the demands of high-quality patient care.
- **Retail Sector:** A study conducted by Bamberger and Meshoulam (2000) in retail organizations revealed that MCS integrating human capital management not only improved employee performance but also contributed to better customer satisfaction and sales performance. This was achieved through clear performance incentives, training programs aligned with business objectives, and real-time data analytics.

These empirical findings underscore that MCS, when strategically aligned with human capital management, can significantly enhance organizational productivity, foster innovation, and improve overall performance. The combination of sophisticated metrics, technological integration, and tailored case-specific applications is key to leveraging human capital effectively.

5. CONCLUSION AND FUTURE DIRECTIONS

Nowadays, human resource management and management control have a strong relationship. This study aimed to analyze the management control practices developed by the human resources management function. The results showed a strong relationship between both functions, where human resources management uses several procedures and tools that integrate and formalize the two areas, constituting one of the main management control practices. It has been concluded that the research has deepened the understanding of the divergence that exists between the literature about management control and the management practices with reports from different types of human resources management by using several management control mechanisms. Furthermore, the study method considers the relation between the use of management practices from different types of human resources management (operational, administrative, and strategic).

To effectively manage human capital, organizations must design management control systems (MCS) that align closely with their strategic objectives. This alignment ensures that workforce activities contribute to the broader goals of the organization, facilitating synergy and operational coherence. An MCS designed with strategic alignment in mind helps organizations monitor employee performance, encourage skill development, and drive engagement, ultimately supporting long-term growth and competitive advantage.

Balancing control with empowerment is another essential practice for fostering a productive work environment. While MCS provide structure and direction, empowering employees through autonomy and trust can significantly enhance engagement and innovation. When employees feel they have a voice in decision-making and are trusted to act in the organization's best interest, their motivation and creative potential are heightened. This approach not only boosts morale but also leads to higher levels of problem-solving and innovation, which are crucial for adapting to changing market conditions.

Finally, continuous improvement of MCS is vital to ensure their relevance in a rapidly evolving environment. As human capital dynamics shift due to technological advancements, market demands,

and workforce expectations, MCS must be regularly updated to reflect these changes. Organizations should incorporate feedback loops, conduct periodic reviews, and leverage data analytics to refine MCS over time. This proactive approach helps organizations remain agile, adapt to new challenges, and optimize human capital management practices to meet current and future strategic goals.

This study has several limitations, including its reliance on existing literature and case studies, which may not fully capture the diversity of organizational contexts or account for rapidly changing technological advancements. The integration of human capital and MCS can vary widely across industries, making generalizations challenging. Additionally, while theoretical frameworks and empirical research provide valuable insights, they may not address the real-time challenges faced by organizations in implementing these systems. The evolving nature of work, especially with the rise of remote and hybrid models, presents new complexities that may not be reflected in current studies. Finally, ethical considerations and the potential for employee resistance to performance monitoring remain underexplored in the literature, which could affect the practical application of findings.

In conclusion, we believe that the greater the integration between the intensity and use of the management control practices, as well as with the human resources management typologies, provides a competitive advantage. This approach helps increase the organization's performance in the face of new demands resulting from business model transformations. The adoption of these practices associated with capabilities that enhance speed and flexibility in the performance of human resources management and management of new skills are continuous challenges. The study analyzes the use of management control practices and their relationships between human resource management typologies and contributes to new lines of research. Common goals between both functions and the understanding of the assumed paradoxical types of human resources management are also considered.

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