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# The Evolution of Management: From Classical Administration to the Digital Age: A Narrative Review.

A Evolução da Gestão: Da Administração Clássica à Era Digital: Uma Revisão Narrativa.

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## Abstract

**Objective:** Critically analyse the historical evolution of management theories, from classical foundations to contemporary approaches, identifying patterns of transformation and contributions to current organizational practice.

**Methodology:** Narrative review of the literature based on 47 reference works, covering the period from 1900 to 2024, using inductive qualitative analysis for thematic synthesis, complemented by quantitative content analysis and interpretation of evolutionary patterns.

**Results:** The evolution of management reveals a progression from mechanistic paradigms (scientific management) to humanistic, systemic, and digital approaches. Eight main schools have been identified that have progressively shaped contemporary organizational practices, with behavioural theory making the most contributions (16 authors), followed by classical theory (15 authors).

**Practical implications:** They guide managers in choosing management approaches, from a focus on human factors to contingency structures, depending on the organizational context. They highlight the importance of integrating information systems and analytical tools for more agile and effective decisions.

**Originality/Value:** This study combines an inductive qualitative analysis of thematic synthesis with quantitative content analysis in a historical review of management theories, mapping the main schools and their contributions. It offers an integrated methodological framework and practical guidelines for future research and application in diverse organizational contexts.

**Keywords**: Management evolution; Organizational theories; Scientific management; Digital transformation; Management practices.

**Article classification**: Literature review.

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## 1. INTRODUCTION

Organizational management is a constantly evolving discipline, adapting to the socio-economic, technological and cultural transformations of each era (Chiavenato, 2000). Until the 18th century, the most important organizations were linked to craftsmanship, around which the economy was generated, with artisans working in schools and small workshops, as well as self-employed professionals (Mol & Birkinshaw, 2014).

The origins of modern administration and management can be found in the writings of various philosophers of the Ancient Age. Aristotle (384-322 BC) dealt with topics such as state organization and forms of government; Plato (429-347 BC) addressed the management of public affairs arising from Greek social and cultural development; and Socrates (470-399 BC) discussed management as an important skill, separate from technical knowledge and experience (Perez, 2010).

Management was also influenced by the Catholic Church in aspects such as centralization of command, decentralization of activities, discipline and hierarchy (Volberda et al., 2014). The structure of the ecclesiastical organization served as a model for organizations which, recognizing the church's successful experiences, began to incorporate such principles and norms (Chiavenato, 2000).

Military organizations provided knowledge about obedience to hierarchy, strategy, unity of command and discipline (Volberda et al., 2014). In Napoleon's time (1769-1821), each general was responsible for the entire battlefield, but with wars of greater scope, command required new organizational principles: centralized planning and control in parallel with decentralized operations (Chiavenato, 2000).

With the beginning of mercantilism in the 18th century, other trends gained momentum, especially after the Industrial Revolution. The invention of steam engines (1776), with their use in production and the emergence of factories, entirely changed the social and commercial structure, causing profound and rapid changes (Aguinis, 2013). This period was marked by the acceleration of communications and transport, the development of the textile sector and the mechanization of agriculture and industry.

In addition, the liberal ideas of Adam Smith (1723-1790) emphasized competition and specialization, reinforcing the importance of planning and organization in administrative functions (Chiavenato, 2000), while Karl Marx's Marxism analysed the contradiction

between capitalists and workers as the driving force of industrial societies (Chiavenato, 2002, 2003).

Nevertheless, the vast body of studies on management evolution, which includes reviews of management accounting (Odonkor et al., 2024; Silva & Santos, 2022), neo-Schumpeterian theories (Bodrožić & Adler, 2017) and the convergence of total quality with organizational theories (Dahlgaard-Park et al., 2018), lacks an integrative synthesis that systematically articulates historical transformations with the contemporary challenges of digitalization and sustainability.

In this context, the objective of this research is to critically analyse the historical evolution of management theories, from classical foundations to contemporary approaches, identifying patterns of transformation and contributions to current organizational practice.

To achieve this objective and fill this gap, this research adopts an inductive qualitative narrative review, inspired by Torraco (2016) and Azungah (2018), complemented by quantitative content analysis (counting frequencies of authors and thematic categories) (Krippendorff, 2019), aiming to map the evolution of management concepts between 1900 and 2024.

Building on this methodological foundation, beyond a chronological account, this narrative review offers an integrative perspective that links the main schools of management to contemporary organizational challenges (digitalization, sustainability, and uncertainty) (Leiblein & Reuer, 2020). In doing so, this approach goes beyond a simple timeline of theories, highlighting how historical developments in management science inform current practices and address evolving demands in the workplace (Alzahmi et al., 2025; Jakhongir, 2025). This article aims to problematize the dominant narratives in the history of management thinking, highlighting how these historical accounts influence our understanding and the future of the discipline (Weatherbee & Durepos, 2022). The review summarizes enduring productive tensions — efficiency versus humanization, control versus flexibility, universality versus context, and theory versus practice — and discusses how each school provides design principles for current management decisions (Lewis & Smith, 2014; Noponen et al., 2023).

The proposed framework relates each school to (i) its fundamental assumptions about people, structure, and coordination, (ii) its preferred management mechanisms (planning, control, motivation, training, or data-based management), and (iii) the conditions under

which it is most useful. This allows the historical evolution of management thinking to be interpreted as a repertoire for solving current problems (e.g., hybrid work coordination, algorithmic decision support, and agility), rather than a purely descriptive succession of theories (Bodrožić & Adler, 2017).

Methodologically, forty-seven key publications were selected through searches on Web of Science, Scopus, Google Scholar, and JSTOR using terms such as "management evolution," "business history," and "organizational transformation" (Odonkor et al., 2024; Petticrew & Roberts, 2006). The data were analysed using thematic analysis (Thomas & Harden, 2008), with peer validation in joint coding sessions (Ahmadi et al., 2022; Townsend et al., 2023), enabling the identification of patterns of continuity and change in management paradigms over time.

This article is structured into six main sections. Section 2 presents a review of the literature, organizing the main schools of management chronologically. Section 3 details the narrative review methodology used. Section 4 presents the results of the evolutionary analysis. Section 5 develops the integrative discussion on convergences and tensions. Section 6 presents the conclusions, practical implications and future directions.

## 2. LITERATURE REVIEW

### 2.1 Classical Schools of Management (1900–1940)

#### 2.1.1 Scientific Management

Frederick Winslow Taylor laid the foundations for the analysis and standardization of tasks, with a view to increasing operational productivity (Bodrožić & Adler, 2017). This period was marked by a mechanistic view of organizations, where work was divided into simple and repetitive tasks, deeply rooted in industrial operations, but not without criticism regarding employee alienation (Volberda et al., 2014).

Taylor was highly dedicated to his work and disciplined. In his day, payment was based on tasks performed or pieces produced, creating tension between owners (who wanted to maximize hours) and workers (who slowed down to balance their pay). Taylor studied and suggested improvements to meet the interests of both, resulting in several inventions, such as the optimization of the steel cutting process (Culbert & Rout, 2010).

In 1895, Taylor developed a piecework payment system that measured the time required for workers to perform their tasks optimally, receiving reasonable remuneration. In 1903, he published a paper analysing the importance of operations scheduling, motion study, sequencing and standardization, thus contributing significantly to the development of management systems at the time (Dahlgaard-Park et al., 2018).

Henry Ford was responsible for advancing companies by developing methods that speeded up production while reducing manufacturing times and costs. Among his principles, the following stand out production development, economic reduction of stocks, standardization of equipment and assembly lines, and horizontal and vertical integration (Aguinis, 2013).

### 2.1.2 Classical Management Theory

Classical Management Theory, widely associated with Henri Fayol, focuses on systematizing management principles as an important practice for organizational effectiveness. Fayol proposed that all aspects of management should be treated with scientific rigour, highlighting essential functions such as planning, organization, command, coordination and control. His pragmatic and integrative approach emphasizes the importance of organizational structure and hierarchy, stating that organized management could increase efficiency and improve company results (Hoetker, 2007; Mol & Birkinshaw, 2014).

Henri Fayol also highlighted the importance of communication within organizations, considering it fundamental to the effective execution of administrative functions. Clear communication promotes collaboration between different spheres of management and is vital for disseminating organizational vision and objectives (Köseoğlu & Parnell, 2020; Volberda et al., 2014). His theory remains a crucial reference that influences not only the fundamentals of management but also contemporary practices in innovation and knowledge management (Boyatzis et al., 2015; Dimitrova & Scarso, 2017).

### 2.1.3 Bureaucratic Theory

According to Hoetker (2007), bureaucratic theory has made it possible to establish obligations, rights and regulations that underpin the management process. Modern corporate society is highly bureaucratic, governed by laws that establish obligations and

rights for corporate development. Max Weber developed bureaucratic theory, characterized by elements such as professionalism, impersonality and formality. Usually seen as a problem, bureaucracy should be viewed as the most efficient form of organization, ensuring rationality and predictability (Chiavenato, 2003).

## 2.2 Humanistic Perspective (1930–1960)

### 2.2.1 School of Human Relations

From the 1930s onwards, the emphasis on human aspects within organizations gained attention, mainly due to the Hawthorne studies, which revealed the importance of motivation and social conditions in the workplace. The Human Relations School, led by Elton Mayo, suggested that productivity was intrinsically linked to the emotional and psychological well-being of employees (Dahlgaard-Park et al., 2018).

Elton Mayo was the pioneer of the humanistic approach. Through his studies and publications, he laid the foundations for research on human relations, addressing political, social, human, technological, and industrial issues. Marrow specialized in industrial psychology, using applied psychology methodologies to resolve business conflicts (Culbert & Rout, 2010).

The Human Relations Theory has been subject to significant criticism: denial of organizational conflict with employees, worker dissatisfaction with union movements, covert espionage, utopian conceptions of happy workers, restriction of variables studied, and lack of new criteria for management (Borman, 1977).

### 2.2.2 Theories of Motivation

Behavioural Theory is based on individual human behaviour, explaining how individuals behave in the organizational environment. The management process focuses on human motivation to understand individual needs and improve the quality of business life (Haleblian & Finkelstein, 1999).

The main scholars of this theory were Frederick Herzberg, who created the two-factor theory showing how people behaved in the workplace, while Abraham Maslow became an expert in human motivation (Boyatzis et al., 2015). These theories laid the foundations for modern human resource management.

## 2.3 Systemic and Contingency Approaches (1960–1990)

### 2.3.1 Systems Theory

Systems Theory considers companies to be systems in which the study of the whole transcends the particular, providing a broader view that allows for in-depth analysis of enterprises. This results in organizations similar to open systems with independence and interaction between the environment and the parts that comprise it, ensuring exchange with the environment (Mol & Birkinshaw, 2014).

Edgar Schein advocated that organizations consist of open systems that change frequently, interacting dynamically with environmental agents. Robert Kahn and Daniel Katz believed that managing companies according to this model required considering organization as a system of roles, the concept of effectiveness, system dynamics, organizational climate and culture, and first-order characteristics (Aguinis, 2013).

It is important to note that systems consist of sets of elements or parts that are interdependent and, when integrated, form an organized, unified and complex whole, enabling the achievement of a previously suggested objective. Through this theory, managers come to understand other sciences and the surrounding universe, leading to improvements in the activities performed, as well as increased efficiency (Dane, 2011).

### 2.3.2 Structuralist Theory

Structuralist theory aimed to understand companies through their internal structure and relationships with other organizations, developing social units to achieve specific objectives. Organizations can be formal and informal, encompassing systems of sanctions and rewards centred on corporate behaviour (Aguinis, 2013).

Authors such as Merton, Weber, Gourdner and Selznick were part of this movement, forming a school of thought rich in valuable concepts for solving business problems, presenting a transitory and dynamic character in the search for the ideal organizational method (Culbert & Rout, 2010).

### 2.3.3 Contingency Theory

Contingency Theory highlights technology and the environment, valuing people, tasks and structure. Organizations are open systems that interact directly with the environment

and with themselves, seeking to understand relationships within and between environments, organizations and subsystems (Hambrick, 1983).

Chandler emphasized that organizational structure must follow strategy, being an essential element for business effectiveness (Chandler, 1969). Woodward pointed out that technology is not limited to production but influences the entire structure and functioning of organizations (Leyland & Woodward, 1967).

### 2.3.4 Neoclassical Theory

Peter Drucker developed Management by Objectives, assuming that management is an operational activity consisting of the functions of planning, organizing, directing and controlling. While formal issues are determined by hierarchical relationships, functions and positions, informal issues create spontaneous partnerships that can benefit organizations (Chiavenato, 2003; Drucker, 2007).

## 2.4 Contemporary Management (1980–present)

### 2.4.1 Total Quality

The 1980s brought the concept of Total Quality, integrating quality practices at all organizational levels. Total Quality Management (TQM) emphasized employee involvement in continuous improvement, followed by evidence-based management and data analysis-oriented practices (Dahlgaard-Park et al., 2018).

### 2.4.2 Innovation in management and digital transformation

The concept of innovation in management has gained prominence, with studies highlighting the importance of innovation as a driver of organizational performance. Volberda et al. (2014) argue that innovation in management is not only a response to change, but a strategy for creating competitive advantages, leading to adaptive governance and the inclusion of agile methodologies and design thinking.

Digital transformation reshapes management not only through the adoption of technology, but also through new forms of coordination and management: platform-based ecosystems, data and analytics capabilities, and algorithmic mediation of work. This change raises management issues regarding data management (quality, access, privacy),

responsibility for decisions when using AI/analytics, and organizational ambidexterity (simultaneously exploiting existing processes and new digital business models) (Schneider & Kokshagina, 2021). In this sense, "digital management" can be discussed as a transition from hierarchy-centred control to hybrid coordination, combining formal structure with agile routines, cross-functional teams, and rapid learning cycles (Hanelt et al., 2020). The digital age also intensifies the tensions highlighted by previous schools: efficiency versus humanization (automation, supervision, and well-being) and control versus flexibility (real-time metrics versus autonomy). A critical discussion must therefore recognize risks such as surveillance, bias in automated decisions and digital skills' inequality, while also acknowledging opportunities for inclusion, transparency and evidence-based management (Noponen et al., 2023).

With increasing digitization and globalization, modern management uses artificial intelligence and machine learning to optimize processes and predict trends, relying heavily on data and agile decision-making. Digital platforms and big data management provide a new dimension to decision-making (Mol & Birkinshaw, 2014).

### 2.4.3 Sustainability and Social Responsibility

Corporate Social Responsibility (CSR) and sustainability have become central areas of contemporary management, reflecting changing social expectations about the role of business. According to Mol and Birkinshaw (2014), innovations in management are driven by the need to create sustainable value, involving the external community and promoting collaborative practices. In addition, Boyatzis et al. 2015 highlight that visionary leadership is crucial to fostering an organizational environment that values CSR, positively influencing stakeholder engagement. The development of relationships between private non-profit organizations and companies is fundamental to their sustainability, as it not only benefits donors but also strengthens the social and emotional impact on the communities involved (Reis, Barbosa & Marques, 2018). In addition, effective leadership is characterized by the ability to positively influence the organizational climate, while promoting innovation and skills development among employees (Seco & Teixeira, 2019).

## 2.5 Other Contributory Theories

Pulakos et al. (2019) highlight performance management and its high cost, presenting simplified formal systems, but contributing to improving the performance of organizations (even though it requires a lot of effort and time to implement). Yong and Wilkerson (2002) point out that management presents diverse scenarios, and it is important to allow this field to develop harmoniously within the company. Thus, confidence should not be lost in scenarios with insignificant results. An example of this is the Japanese commitment to optimizing management processes, which has placed them in a prominent position in this field worldwide.

Baldwin et al. (1991) identified a significant gap in management models but emphasized that their application and study can bring significant benefits, even in the face of complexity. Thus, it is essential to develop models that guide daily activities, which is only possible through research that effectively expands this field.

Lee and Billington (1995), when discussing the case of Hewlett Packard (HP) in relation to management evolution, highlight that management can bring about improvements in companies. It allows teams to work in an integrated manner to advise on improvements that are appropriate to the reality of the company, considering relevant factors such as costs and feasibility, among other factors.

Chenhall and Moers (2015), in turn, highlight that management control systems consist of a technology that can be the key to a company's success if applied properly. Thus, the implementation of this technology improves any company, from the administrative to the operational sector, but applying it requires involvement, participation, and understanding of the phenomena present in the environment.

Marsland and Beer (1983), in studying the evolution of Japanese management, pointed out that the success of these professionals is due to several reasons, the main ones being data exchange, collection, evaluation of information, and division of labour. Based on these elements, lower-level managers can make decisions quickly and effectively, preventing low-complexity problems from reaching their superiors. In addition, the Japanese focus on three main points: the division of labour in administration, bottom-up decision-making, and a focus on information.

Köseoğlu and Parnell (2020), when studying the evolution of strategic management, mentioned that organizations are affected by various internal and external factors. For this reason, psychological, macroeconomic, microeconomic, and other events are factors that impact management processes. It is therefore essential that managers adopt strategic approaches to ensure that these elements are used to their advantage and for of the company, thereby improving performance and competitiveness.

Dimitrova and Scarso (2017), when analysing the impacts of crowdsourcing on management, highlight that this tool can improve management if it is well executed. Understanding this component facilitates its development, but it must be used strategically to achieve the objective and reap the internal and external benefits provided by this component.

## 3. METHODOLOGY

The methodology of this study adopts an inductive qualitative narrative review, inspired by Torraco's (2016) integrative review model, and is summarized in Table 1. Initially, the scope and objective were defined: to map the evolution of management concepts between 1900 and 2024, selecting 47 publications that address classical, humanistic, systemic, contingency, and digital schools (Chiavenato 2000; Silva & Santos 2022). This extended period allowed for the exploration of long-term trends and changes in management practices, combining historical knowledge with contemporary developments (Jones, 2015; Mozota & Wolff, 2019). Subsequently, searches were conducted in Web of Science, Scopus, Google Scholar, and JSTOR using keywords such as “management evolution,” “business history,” and “organizational transformation” (Odonkor et al. 2024; Petticrew & Roberts 2006). Inclusion criteria (languages: pt/en; historical-theoretical focus) and exclusion criteria (purely empirical studies without a theoretical framework) were applied (Siddaway 2014).

To enhance transparency, following Rethlefsen et al., (2021), the review now reports: (i) the initial number of records identified in databases and supplementary sources, (ii) removal of duplicates, (iii) screening exclusions with justifications (e.g., not focused on management theory, non-academic sources, or outside the historical scope), and (iv) full-text exclusions, culminating in the final corpus (n=47). Although this is a narrative review

(rather than a systematic review), providing these figures improves reproducibility and allows readers to assess coverage and potential selection bias (Page et al., 2021).

Additionally, the count of 'leading authors' is used as a descriptive heuristic to illustrate the relative concentration of classic contributions within each school in the selected corpus. It is not intended to measure scientific impact and should not be interpreted as bibliometric evidence (Chu & Evans, 2021).

Data collection was carried out through the complete reading and analysis of the selected publications. Qualitative analysis used thematic analysis methods, as suggested by Thomas & Harden (2008), enabling the identification of themes and patterns that highlight the transformations in the evolution of management paradigms (Knettell et al. 2018). To ensure rigour and consistency, the team held discussion sessions to analyse the narratives collected: during these sessions, codes were created based on emerging themes and the data were grouped into representative categories (Ahmadi et al. 2022; Townsend et al. 2023).

Once organized, each category was analysed in depth, relating it to historical trends and social, economic and technological transformations to understand how these interactions have shaped management practice and theory over time (Thomas & Harden 2008; Torloni et al. 2023). In addition, patterns of continuity and change in management approaches were identified, including the influence of contextual factors and organizations' reactions to technological and social changes (Eshrati et al. 2021).

As part of the validity assurance process, cross-checking and peer validation of preliminary written materials were carried out, ensuring multiple perspectives and avoiding interpretative biases (Knettell et al. 2018; Kuziemsky et al. 2024). Finally, the narrative review was structured to present a cohesive and interpretative view of the data, articulating the conclusions obtained through thematic analysis in a clear dialogue on the evolution of management into the digital age (Fernandez et al. 2024).

**Table 1 -** *Methodological steps of the narrative review*

| Stage | Objective | Key References |
|---|---|---|
| **1. Planning** | Define scope (1900–2024) and corpus (47 publications) | Chiavenato 2000; Silva & Santos 2022 |
| **2. Search** | Search in databases (WoS/Scopus/GS/JSTOR) | Odonkor et al. 2024; Petticrew & Roberts 2006 |
| **3. Selection** | Apply inclusion/exclusion criteria | Siddaway 2014 |
| **4. Thematic Analysis** | Reading, free coding; identification of themes | Knettell et al. 2018; Thomas & Harden 2008 |
| **5. Categorization and Validation** | Group into categories; cross-check with peers | Ahmadi et al. 2022; Kuziemsky et al. 2024; Townsend et al. 2023; |
| **6. Integrative Synthesis** | Relate categories to contexts and write narratives | Eshrati et al. 2021; Fernandez et al. 2024; Torraco 2016 |

Source: Own elaboration (2025).

## 4. ANALYSIS AND DISCUSSION OF RESULTS

### 4.1 Systematization of Management Approaches

The literature review revealed eight schools of thought that contributed significantly to the development of management, as shown in Table 2. This categorization, inspired by Chiavenato (2000), is in line with the classifications established by the author and is corroborated by subsequent studies that mapped the historical evolution of administrative thought (Bodrožić & Adler, 2017; Volberda et al., 2014).

For each school, the number of leading authors mentioned in classical literature was counted, following the criteria of academic relevance and historical impact established by Silva & Santos (2022). These values do not represent merely a statistical count but indicate the intellectual intensity and diversity of contributions that each approach has received throughout its evolution (Dahlgaard-Park et al., 2018). These counts are descriptive only and support the narrative synthesis; they are not presented as a bibliometric assessment.

**Table 2 -** *Systematization of Management Approaches*

| Approaches/Theories | No. Main Authors | Main Authors | Main Theoretical Contributions |
|---|---|---|---|
| **Behavioural** | 16 | Abraham Maslow, Herbert Alexander Simon, Douglas McGregor, Rensis Likert, Frederick Herzberg, Chester Barnard, Cris Hrgyris, March, Beckhard, Lorsch, Sayles, Lawrence, Schein, Bennis, Argyris and Cyert | Human motivation; leadership; organizational culture |
| **Classic** | 15 | Taylor, Ford, Frank e Lílian Gilbreth, Henry Grant, Henri Fayol, Ralph Davis, Luther Gulick, Lindall Urwick, William H. Newman, Harold Koontz, Cyril O'Donnel, Mooney, Emerson and Gantt | Operational efficiency; standardization; division of labour |
| **Neoclassical** | 13 | Peter Drucker, Alfred Sloan, Ralph Davis, George Odiorne, John Humble, Ernest Dale, William H.Newman, Cris O'Donnell, Harold Koontz, Koontz, Jucius, Galinier and Scheh | Management by objectives; administrative functions |
| **Structuralist** | 12 | Gourdner, Selznick, Merton, Weber, Jean Viet, Burston Clarke, David Sills, Peter Blau, Amitai Etzioni, Victor Thompson, James Thompson and Scott | Organizational analysis; conflict; power and internal politics |
| **Human Relations** | 11 | George Elton Mayo, Kurt Lewin, Oliver Sheldon, Mary Parker Follett, Alfred Marrow, Roethlisberger, Dubin, Cartwright, French, Zalesnick and Tannenbaum | Well-being at work; motivation; influence of informal groups |
| **Systems** | 11 | Hichs, Trist, Burns, Churchman, Rosenzweig, Rice, Kast, Johnson, Robert Kahn, Daniel Katz and Edgar Schein | Systemic thinking; environment-organization interdependence |
| **Bureaucratic** | 11 | Max Weber, Robert Kahn, Daniel Katz, Terence Hopkins, Robert Michels, Reinhard Bendix, Richard Scott, Peter Blau, Alvin Goudner, Philip Selznich and Robert Merton | Formal structure; hierarchy; rules and procedures |
| **Contingency** | 8 | G. M. Stalker, Tom Burn, Jay Lorsch, Paul Lawrence, Joan Woodward, Perrow, Thompson and Alfred Chandler | Adaptation to context; structural flexibility |

Source: Own elaboration (2025).

The preponderance of the behavioural school (16 authors) reflects the growing recognition of human factors in organizations, a trend identified by Dahlgaard-Park et al. (2018) as central to the evolution of management practices. This quantitative supremacy aligns with the focus on employee well-being and motivation, also emphasized by Bodrožić & Adler (2017) when highlighting the integration of more humanistic approaches into administrative thinking.

The second position of the classical school (15 authors) confirms its foundational importance, establishing the basic principles that, according to Mol & Birkinshaw (2014), continue to influence contemporary practices. The robust representation of the human relations school (11 authors) documents the academic response to the limitations of Taylorism, a process analysed in detail by Culbert & Rout (2010).

Particularly interesting is the relatively modest position of the contingency school (8 authors), which Hambrick (1983) considers fundamental to modern management. This apparent discrepancy may reflect the more recent and synthetic nature of this approach, which integrates contributions from previous schools rather than developing an entirely new theoretical corpus.

The quantitative distribution also reveals intellectual maturity in the field of management, with 97 leading authors distributed across the eight schools, demonstrating the theoretical richness that Köseoğlu & Parnell (2020) identify as a distinctive feature of the discipline in contemporary times. As illustrated in Figure 1, the behavioural school has the largest number of authors, followed by the classical school. The presence of authors who have crossed different schools of thought highlights theoretical synergies that have contributed to the continuous improvement of management methods.

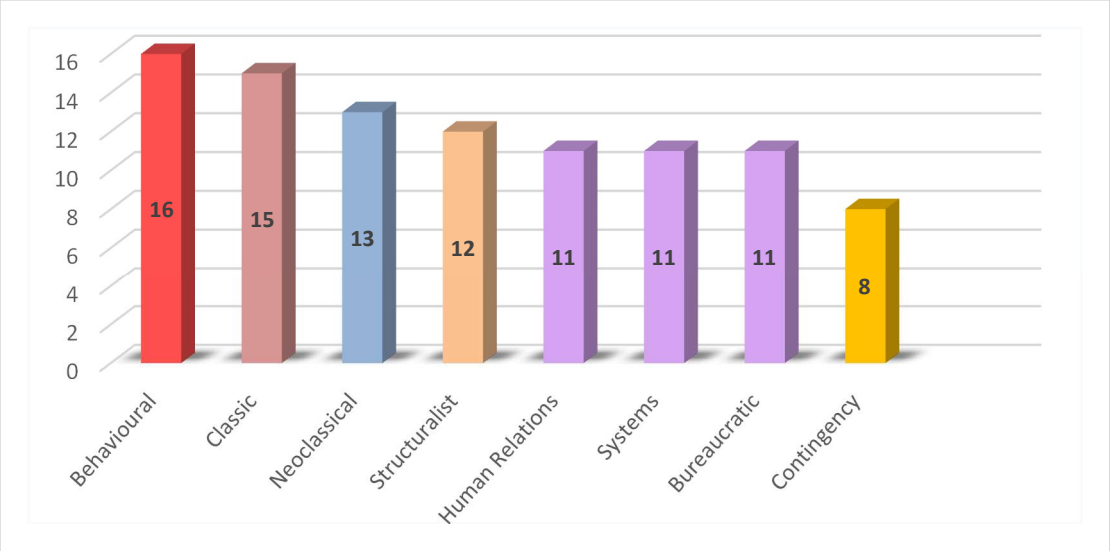


**Figure 1 -** *Number of Leading Authors by Management School*

Source: Own elaboration (2025).

### 4.2 Identified Strategic Convergences

At the beginning of the 20th century, Taylor's Scientific Management emphasized efficiency, standardization and time studies, aligning itself with the mass production context of the Industrial Revolution (Bodrožić & Adler, 2017). Between 1916 and 1940, Fayol and Gulick's Classical School consolidated administrative functions and universal principles in response to the growth of large industrial companies (Chiavenato, 2003). As Table 3 shows, each school reflects historical and evolutionary changes in management practices. From 1920 onwards, Weber's Bureaucratic Theory formalized procedures and rationalized complex organizational structures, reflecting the consolidation of hierarchies in modern institutions (Aguinis, 2013). In the 1930s-1960s, Hawthorne's studies gave rise to the Human Relations School, valuing motivation and informal groups in the post-industrial crisis (Dahlgaard-Park et al., 2018). Between 1950 and 1970, the Neoclassical and Structuralist approaches professionalized management by objectives and analysed formal/informal dualities, in the midst of post-war economic expansion (Chiavenato, 2003; Drucker, 2007). From 1960 to 1980, Schein's Systems Theory proposed a holistic view of open organizations, influenced by the systemic thinking of the space age (Mol & Birkinshaw, 2014). At the same time, Contingency Theory emphasized the need for

structural flexibility to cope with dynamic environments (Hambrick, 1983). Since 1980, Contemporary Management has integrated total quality, digital innovation and sustainability, mirroring globalization and the emergence of the information age (Volberda et al., 2014).

**Table 3 -** *Chronological Evolution of Management Schools*

| Period | Dominant School | Key Features | Historical Context |
|---|---|---|---|
| 1900–1920 | Scientific Management | Efficiency; standardization; time studies | Industrial Revolution; mass production |
| 1916–1940 | Classic | Administrative functions; universal principles | Expansion of large industrial companies |
| 1920–1950 | Bureaucratic | Rationalization; formal procedures | Increasingly complex organizational structures |
| 1930–1960 | Human Relations | Focus on the human factor; motivation; informal groups | Post-Hawthorne studies; appreciation of social behaviour |
| 1950–1970 | Neoclassical / Structuralist | Professionalization; management by objectives | Post-war economic expansion; growth of global organizations |
| 1960–1980 | Systems | Holistic view; organizations as open systems | Space age; development of systemic thinking |
| 1960–present | Contingency | Adjustment to context; structural flexibility | Dynamic environments; increased uncertainty and complexity |
| 1980–present | Contemporary Management | Total quality; innovation; digitization; sustainability | Information age; globalization; social responsibility |

Source: Own elaboration (2025).

### 4.3 Identified Production Tensions

The analysis of the literature revealed four productive tensions that run through the entire evolution of management. Firstly, Efficiency vs. Humanization contrasts the search for maximum productivity, initiated by Taylor with Scientific Management, with the valuing of workers' well-being advocated by the Human Relations School based on the Hawthorne studies (Bodrožić & Adler, 2017; Dahlgaard-Park et al., 2018). Secondly, the Control vs. Flexibility dilemma arises from Weberian bureaucratic rationalization, which establishes rigid rules and hierarchies to ensure predictability, and from contemporary agile approaches, which favour adaptive and decentralized organizational structures (Aguinis, 2013; Mol & Birkinshaw, 2014). The third tension, Universality vs. Contextualization, reflects the conflict between the universal principles proposed by Fayol and Gulick in the context of Classical Theory and the contingency view, which maintains that management practice must adjust to the specific environmental and technological variables of each organization (Chiavenato, 2003; Hambrick, 1983). Finally, the tension between Theory and Practice highlights the mismatch between the academic rigour of management theories and the need for relevance and applicability in business contexts, bringing together Drucker's conceptual contributions with empirical studies on performance management, management control, supply chain and crowdsourcing (Chenhall & Moers, 2015; Dimitrova & Scarso, 2016; Drucker, 2007; Lee & Billington, 1995). These tensions point to key challenges: reconciling efficiency and well-being, controlling without restricting innovation, applying principles without ignoring context, and combining theoretical knowledge with organizational practice.

## 5. INTEGRATIVE DISCUSSION

A critical analysis of the evolution of management theories reveals a pattern of continuous transformation from classical foundations to contemporary approaches, marked by increasing flexibility and collaboration. Classical theories, such as those of Taylor and Fayol, were based on rigid hierarchical structures and process standards designed to maximize operational productivity (Dahlgaard-Park et al., 2018). However, the need for innovation and adaptability motivated the transition to open innovation models, as demonstrated by Bodrožić and Adler (2017), who identified downsizing and outsourcing

in the 1990s as limitations to internal creativity, driving the search for external ideas and collaboration with communities beyond organizational boundaries.

At the same time, knowledge management has evolved with the advent of crowdsourcing, which Dimitrova and Scarso (2017) present as a mechanism for overcoming internal resistance to innovation, the "not invented here syndrome," and systematically integrating external sources of knowledge. This movement reflects the shift from a hierarchical culture to a mindset oriented towards continuous learning and the co-creation of solutions.

In the field of leadership, Boyatzis et al. (2015) introduce the concept of positive emotional attractor, emphasizing the role of emotions in forming shared visions and engaging employees. This approach reveals the incorporation of the emotional dimension in the exercise of leadership, an aspect neglected by classical theories but central to the development of collaborative and innovative organizational environments.

Together, these studies paint a dynamic picture in which classical traditions provide the structural foundation, while modern approaches introduce practices of open innovation, collaborative knowledge management, and emotional leadership. This ongoing dialogue between theory and practice transforms organizations into ecosystems capable of learning, adapting, and thriving in complex and interconnected contexts.

## 6. CONCLUSIONS

The historical trajectory of management theories shows that their evolution has been driven by a continuous response to socio-economic and technological challenges. Originating in the First Industrial Revolution, classical management established the foundations of rigid hierarchy, process standardization and the intense pursuit of operational efficiency, as highlighted by Taylor and Fayol (Culbert & Rout, 2010). However, the rapid growth of organizations and subsequent crises highlighted the need for flexibility and innovation, leading to the incorporation of collaborative approaches such as open innovation (Bodrožić & Adler, 2017) and crowdsourcing in knowledge management (Dimitrova & Scarso, 2017).

Quantitative analysis, following Krippendorff (2019), showed that the behavioural school brings together the largest number of authors (16), followed by the classical school (15), which confirms the centrality of these currents in the development of management over time. However, the emergence of models oriented towards external innovation, emotional

leadership and social responsibility demonstrates the consolidation of an emerging integrative model, capable of articulating: the search for structural efficiency, the valorisations of well-being and emotional involvement, openness to collaboration and external knowledge, and sustainability and social purpose.

Today's organizations tend to be more diverse, open to innovation and self-control, less bureaucratic and more entrepreneurial. We are now living in the ‘age of uncertainty,’ in which digitalization, globalization, and cultural changes such as the rise of female leadership and participatory democracy are shaping new organizational forms. Information technologies are transforming processes, while decentralized decision-making and strategic vision are increasing the agility and responsiveness of companies.

In practice, these conclusions suggest that successful organizations will be those that simultaneously maintain clear authority structures, foster collaborative innovation, invest in the emotional development of leaders, and balance financial goals with social impact. The adoption of dynamic, evidence-based management systems strengthens adaptability in complex environments.

In the future, management research should intensify the combination of quantitative and qualitative methods to constantly monitor the productive tensions between efficiency and humanization, control and flexibility, and theory and practice. Historical reflection remains essential: understanding how events such as wars, economic crises, and technological revolutions have shaped management theories helps prepare organizations for the next cycles of change.

Managers should treat management schools as integrated contextual tools: classical mechanisms for stabilizing operations, humanistic approaches for collaborative engagement, contingent perspectives for contextual adaptation, and digital practices for data-driven agility. Future research should empirically test these links, compare sectoral differences in digital governance, and analyse how AI in decision-making support reconfigures accountability, power, and organizational design.

As a narrative and historically oriented review, this study involves interpretative choices that may introduce subjectivity, recognizing limitations such as selection bias — with possible underrepresentation of less cited or non-English contributions, influenced by the choice of databases and keywords — canonical bias that over-represents classic authors from traditional management canons, limits of comparability between schools due to

differences in scope and level of analysis, the non-bibliometric nature of author and topic frequency counts (which are merely descriptive, without measuring actual impact), and limited generalization, since historical knowledge informs current debates but depends on specific organizational and institutional contexts.

## REFERENCES

Aguinis, H. (2013). *Performance Management*. Upper Saddle River: Pearson Hall

Alzahmi, R., Syed, R. T., Singh, D., Arshi, T., & Kutty, S. V. (2025). Organizational change in higher education institutions: thematic mapping of the literature and future research agenda. *Humanities and Social Sciences Communications, 12*(1). https://doi.org/10.1057/s41599-025-05650-w

Ahmadi, S., Ayazi, Z., & Zarezadeh, Y. (2022). A critical review of reflective models in clinical nursing learning. *Journal of Multidisciplinary Care, 11*(2), 97-104. https://doi.org/10.34172/jmdc.2022.1385

Azungah, T. (2018). Qualitative research: deductive and inductive approaches to data analysis. *Qualitative Research Journal*, 18(4), 383-400. https://doi.org/10.1108/qrj-d-18-00035

Baldwin, A. A., Baldwin, D., & Sen, T. K. (1991). The evolution and problems of model management research. *Omega*, *19*(6), 511-528. https://doi.org/10.1016/0305-0483(91)90002-B

Bodrožić, Z., & Adler, P. S. (2017). The evolution of management models: A neo-Schumpeterian theory. *Administrative Science Quarterly*, *63*(1), 85-129. https://doi.org/10.1177/0001839217704811

Borman, W. C. (1977). Consistency of rating accuracy and rating errors in the judgment of human performance. *Organizational Behavior and Human Performance*, *20*(2), 238-252. https://doi.org/10.1016/0030-5073(77)90004-6

Boyatzis, R. E., Rochford, K., & Taylor, S. N. (2015). The role of the positive emotional attractor in vision and shared vision: Toward effective leadership, relationships, and engagement. *Frontiers in psychology*, *6*, 127635. https://doi.org/10.3389/fpsyg.2015.00670

Chandler Jr, A. D. (1969). *Strategy and structure: Chapters in the history of the American industrial enterprise* (Vol. 461). MIT press.

Chenhall, R. H., & Moers, F. (2015). The role of innovation in the evolution of management accounting and its integration into management control. *Accounting, Organizations and Society*. 47. 1-13. https://doi.org/10.1016/j.aos.2015.10.002

Chiavenato, Idalberto (2000). *Introdução à Teoria Geral da Administração* 6ª edição- Editora Campus, Rio de Janeiro

Chiavenato, I. (2003). *Introdução à teoria geral da administração* (7ª ed.). Rio de Janeiro: Elsevier.

Chu, J. S. G., & Evans, J. A. (2021). Slowed canonical progress in large fields of science. *Proceedings of the National Academy of Sciences*, *118*(41). https://doi.org/10.1073/pnas.2021636118

Culbert, S. A., & Rout, L. (2010). *Get rid of the performance review: How companies can stop intimidating, start managing—and focus on what really matters*. Business Plus.

Dahlgaard-Park, S. M., Reyes, L., & Chen, C. K. (2018). The evolution and convergence of total quality management and management theories. *Total Quality Management & Business Excellence*, *29*(9-10), 1108-1128. https://doi.org/10.1080/14783363.2018.1486556

Dane, E. (2011). Paying attention to mindfulness and its effects on task performance in the workplace. *Journal of management*, *37*(4), 997-1018. https://doi.org/10.1177/0149206310367948

Dimitrova, S. and Scarso, E. (2017). The impact of crowdsourcing on the evolution of knowledge management: insights from a case study. *Knowledge and Process Management, 24*(4), 287-295. https://doi.org/10.1002/kpm.1552

Drucker, P. (2007). The Practice of Management (1st ed.). Routledge. https://doi.org/10.4324/9780080942360

Eshrati, B., Baradaran, H. R., Moradi, G., Dehghanbanadaki, H., Azh, N., Soheili, M., … & Moradi, Y. (2021). Evaluation of reinfection in covid-19 patients in the world: a narrative review. *Medical Journal of the Islamic Republic of Iran*. https://doi.org/10.47176/mjiri.35.144

Fernandez, D., Lee, R., Tran, N., Jabran, D. S., King, S., & McDaid, L. (2024). Association between poor sleep and mental health issues in indigenous communities across the globe: a systematic review. *Sleep Advances, 5*(1). https://doi.org/10.1093/sleepadvances/zpae028

Haleblian, J., & Finkelstein, S. (1999). The influence of organizational acquisition experience on acquisition performance: A behavioral learning perspective. *Administrative science quarterly*, *44*(1), 29-56. https://doi.org/10.2307/2667030

Hambrick, D. C. (1983). High profit strategies in mature capital goods industries: A contingency approach. *Academy of Management journal*, *26*(4), 687-707. https://doi.org/10.5465/255916

Hanelt, A., Bohnsack, R., Marz, D., & Marante, C. (2020). A Systematic Review of the Literature on Digital Transformation: Insights and Implications for Strategy and Organizational Change [Review of *A Systematic Review of the Literature on Digital Transformation: Insights and Implications for Strategy and Organizational Change*]. *Journal of Management Studies*, *58*(5), 1159. Wiley. https://doi.org/10.1111/joms.12639

Hoetker, G. (2007). The use of logit and probit models in strategic management research: Critical issues. *Strategic management journal*, *28*(4), 331-343. https://doi.org/10.1002/smj.582

Jakhongir, D. (2025). The Evolution of Management Theory: A Literature Review [Review of The Evolution of Management Theory: A Literature Review]. *Academia Open, 10*(1). Universitas Muhammadiyah Sidoarjo. https://doi.org/10.21070/acopen.10.2025.10630

Jones, K. (2015). Mission drift in qualitative research, or moving toward a systematic review of qualitative studies, moving back to a more systematic narrative review. *The Qualitative Report*. https://doi.org/10.46743/2160-3715/2004.1939

Knettel, B. A., Cichowitz, C., Ngocho, J. S., Knippler, E. T., Chumba, L. N., Mmbaga, B. T., … & Watt, M. H. (2018). Retention in hiv care during pregnancy and the postpartum period in the option b+ era: systematic review and meta-analysis of studies in africa. JAIDS *Journal of Acquired Immune Deficiency Syndromes, 77*(5), 427-438. https://doi.org/10.1097/qai.0000000000001616

Köseoğlu, M. & Parnell, J. (2020). The evolution of the intellectual structure of strategic management between 1980 and 2019. *Journal of Strategy and Management, 13*(4), 503-534. https://doi.org/10.1108/jsma-05-2020-0102

Krippendorff, K. (2019). *Content analysis*. SAGE Publications, Inc., https://doi.org/10.4135/9781071878781

Kuziemsky, C., Chrimes, D., Minshall, S., Mannerow, M., & Lau, F. (2024). Ai quality standards in health care: rapid umbrella review. *Journal of Medical Internet Research, 26*, e54705. https://doi.org/10.2196/54705

Lee, H. L. & Billington, C. (1995). The Evolution of Supply-Chain Management Models and Practice at Hewlett-Packard. *Interfaces*. 25 (5), 42-63. https://doi.org/10.1287/inte.25.5.42

Leiblein, M. J., & Reuer, J. J. (2020). Foundations and Futures of Strategic Management. *Strategic Management Review, 1*(1), 1. https://doi.org/10.1561/111.00000001

Lewis, M. W., & Smith, W. K. (2014). Paradox as a Metatheoretical Perspective. *The Journal of Applied Behavioral Science*, *50*(2), 127. https://doi.org/10.1177/0021886314522322

Leyland, N. H. & Woodward, J. (1967). Industrial organization: theory and practice.. *The Economic Journal, 77*(306), 379. https://doi.org/10.2307/2229326

Marsland, S & Beer, M. (1983). The evolution of Japanese management: Lessons for U.S. managers. *Organizational* Dynamics. 11(3), 49-67. https://doi.org/10.1016/0090-2616(83)90005-0

Mol, M. J., & Birkinshaw, J. (2014). The role of external involvement in the creation of management innovations. *Organization Studies*, *35*(9), 1287-1312. https://doi.org/10.1177/0170840614539313

Mozota, B. & Wolff, F. (2019). Forty years of research in design management: a review of literature and directions for the future. *Strategic Design Research Journal*, 12(1). https://doi.org/10.4013/sdrj.2019.121.02

Noponen, N., Feshchenko, P., Auvinen, T., Luoma-aho, V., & Abrahamsson, P. (2023). Taylorism on steroids or enabling autonomy? A systematic review of algorithmic management. *Management Review Quarterly*, *74*(3), 1695. https://doi.org/10.1007/s11301-023-00345-5

Odonkor, B., Kaggwa, S., Uwaoma, P., Hassan, A., & Farayola, O. (2024). A review of u.s. management accounting evolution: investigating shifts in tools and methodologies in light of national business dynamics. *World Journal of Advanced Research and Reviews*, 21(1), 189-204. https://doi.org/10.30574/wjarr.2024.21.1.2722

Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T., Mulrow, C. D., … & Moher, D. (2021). The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ, n71*. https://doi.org/10.1136/bmj.n71

Perez, C. (2010). Technological revolutions and techno-economic paradigms. *Cambridge journal of economics, 34*(1), 185-202. https://doi.org/10.1093/cje/bep051

Petticrew, M., & Roberts, H. (2006). *Systematic reviews in the social sciences: A practical guide*. John Wiley & Sons.

Pulakos, E., Mueller-Hanson, R., & Arad, S. (2019). The evolution of performance management: searching for value. *Annual Review of Organizational Psychology and Organizational Behavior, 6*(1), 249-271. https://doi.org/10.1146/annurev-orgpsych-012218-015009

Reis, A. B., Barbosa, B., & Marques, J. (2018). A Relação entre Organizações sem fins lucrativos e Empresas Portuguesas: Um estudo exploratório. *International Journal of Marketing, Communication and New Media*, *6*(10).

Rethlefsen, M. L., Kirtley, S., Waffenschmidt, S., Ayala, A. P., Moher, D., Page, M. J., Koffel, J., Blunt, H. B., Brigham, T., Chang, S., Clark, J., Conway, A., Couban, R., Kock, S. de, Farrah, K., Fehrmann, P., Foster, M., Fowler, S. A., Glanville, J., … Young, S. (2021). PRISMA-S: an extension to the PRISMA Statement for Reporting Literature Searches in Systematic Reviews. *Systematic Reviews*, *10*(1), 39. https://doi.org/10.1186/s13643-020-01542-z

Schneider, S., & Kokshagina, O. (2021). Digital transformation: What we have learned (thus far) and what is next. *Creativity and Innovation Management*, *30*(2), 384. https://doi.org/10.1111/caim.12414

Seco, V. & Teixeira, P. (2019). Quality of leadership and implicated constructs. *Open Journal of Leadership, 08*(03), 95-113. https://doi.org/10.4236/ojl.2019.83006

Silva, Í. D., & Santos, E. C. D. (2022). On history, business, and management: a review of the literature and research agenda. *Revista de Administração da UFSM*, *15*, 177-199. https://doi.org/10.5902/1983465966159

Thomas, J. & Harden, A. (2008). Methods for the thematic synthesis of qualitative research in systematic reviews. *BMC Medical Research Methodology, 8*(1). https://doi.org/10.1186/1471-2288-8-45

Torloni, M. R., Betrán, A. P., Corona, M. V., Bohren, M. A., & Widmer, M. (2023). What do healthcare providers think of the quality of uterotonics? a mixed-methods

systematic review. *BMJ Open, 13*(10), e068442. https://doi.org/10.1136/bmjopen-2022-068442

Torraco, R. J. (2016). Writing integrative literature reviews: Using the past and present to explore the future. *Human resource development review*, *15*(4), 404-428. https://doi.org/10.1177/1534484316671606

Townsend, B., Tenni, B., Goldman, S., & Gleeson, D. (2023). Public health advocacy strategies to influence policy agendas: lessons from a narrative review of success in trade policy. *Globalization and Health, 19*(1). https://doi.org/10.1186/s12992-023-00960-7

Volberda, H. W., Van Den Bosch, F. A., & Mihalache, O. R. (2014). Advancing management innovation: Synthesizing processes, levels of analysis, and change agents. *Organization Studies*, *35*(9), 1245-1264. https://doi.org/10.1177/0170840614546155

Weatherbee, T. G., & Durepos, G. (2022). The Evolution of Management Thought: reflections on narrative structure. *Journal of Management History, 29*(1), 29. https://doi.org/10.1108/jmh-07-2022-0030

Webster, J., & Watson, R. T. (2002). Analyzing the past to prepare for the future: Writing a literature review. *MIS quarterly*, xiii-xxiii.

Yong, J & Wilkinson, A (2002). The long and winding road: The evolution of quality management. *Total Quality Management*. *13*(1), 101-121. https://doi.org/10.1080/09544120120098591

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