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REDEFINING THE BOUNDARIES: A THEORETICAL REVIEW OF IS AND MIS DISCIPLINES

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Abstract

This study examines the theoretical roots and historical evolution of the Information Systems (IS) and Management Information Systems (MIS) disciplines through a conceptual and historical review. It aims to explore how the epistemological boundaries between IS and MIS have been shaped and transformed in response to evolving technologies. While IS research primarily situates technology within broader social, organizational, and cultural contexts, MIS builds on these foundations by focusing on managerial decision support, strategic planning, and issues of ethical responsibility. Over time, both fields have evolved from early systems theory and decision-making models toward more diverse theoretical perspectives that incorporate behavioral, socio-technical, and socio-material approaches. The analysis demonstrates that IS and MIS are no longer viewed merely as technical systems but as intersecting intellectual domains concerned with knowledge production, organizational transformation, and digital ethics. This evolution highlights the importance of interdisciplinary integration and suggests new theoretical directions for understanding the changing role of information systems in contemporary organizations.

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SINIRLARIN YENİDEN TANIMLANMASI: BS VE YBS DİSİPLİNLERİNİN TEORİK BİR İNCELEMESİ

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Özet

Bu çalışma, kavramsal ve tarihsel bir çerçevede Bilgi Sistemleri (BS) ile Yönetim Bilişim Sistemleri (YBS) disiplinlerinin teorik temellerini ve tarihsel gelişim süreçlerini incelemektedir. Araştırmanın temel amacı, BS ve YBS arasındaki epistemolojik sınırların, teknolojik gelişmelere bağlı olarak nasıl şekillendiğini ve zaman içinde nasıl dönüştüğünü ortaya koymaktır. BS araştırmaları, teknolojiyi çoğunlukla daha geniş sosyal, örgütsel ve kültürel bağlamlar içinde ele alırken YBS bu kuramsal zeminden hareketle karar verme, stratejik planlama ve etik sorumluluk gibi yönetsel odaklı konulara yoğunlaşmaktadır. Zaman içerisinde her iki disiplin de erken dönem sistem teorileri ve karar verme modellerinin ötesine geçerek, davranışsal, sosyo-teknik ve sosyo-materyal yaklaşımları içeren daha kapsayıcı ve çok boyutlu teorik perspektiflere evrilmiştir. Nitekim bu çalışmada, BS ve YBS'nin günümüzde yalnızca teknik sistemler olarak değil bilgi üretimi, örgütsel dönüşüm ve dijital etik ekseninde kesişen entelektüel alanlar olarak değerlendirildiğini görülmüştür. Bu dönüşüm, disiplinlerarası entegrasyonun önemini vurgulamakta ve çağdaş örgütlerde bilgi sistemlerinin değişen rolünü anlamaya yönelik yeni teorik açılımlar sunmaktadır.

1. INTRODUCTION

Information Systems (IS) and Management Information Systems (MIS) constitute two central and closely related domains within contemporary information systems research. Both fields have attracted sustained scholarly attention and are informed by theoretical perspectives drawn from multiple disciplines. Situated at the intersection of technology, organizations, and social contexts, IS and MIS research draws on conceptual foundations from sociology, philosophy, management science, and engineering. This interdisciplinary orientation has contributed to the rich theoretical diversity of the field.

Despite this diversity, the literature offers relatively limited integrative and historically grounded discussions that examine IS and MIS together at a theoretical and epistemological level. Existing studies often focus on isolated theoretical perspectives or address specific methodological or functional aspects, leaving the broader historical evolution and conceptual interaction between IS and MIS underexplored. As a result, the epistemological boundaries between the two fields remain insufficiently articulated, particularly with regard to their modes of knowledge production and theoretical positioning.

Historically, MIS emerged within the broader development of the IS discipline and gradually developed a stronger focus on managerial decision support, knowledge management, and organizational intelligence. Over time, this evolution has generated ongoing debates in the literature regarding the relationship between IS and MIS specifically, whether MIS should be understood primarily as a managerial application of IS or as a domain characterized by a differentiated epistemological orientation.

This lack of consensus is reflected in both conceptual definitions and research practices, contributing to continued ambiguity surrounding the theoretical identity of MIS.

Against this background, this study addresses the following research question: How are the epistemological boundaries between the IS and MIS disciplines defined? By examining the historical evolution of theoretical perspectives in IS and MIS, the study aims to clarify the conceptual and epistemological interactions between the two fields and to explore how emerging technologies such as digitalization, artificial intelligence, and data-driven systems have influenced the evolving theoretical identity of MIS. Through this theoretical and historical synthesis, the study seeks to contribute to a more nuanced understanding of the relationship between IS and MIS within the broader information systems discipline.

2. BACKGROUND

2.1. Information Systems

IS, evolved in parallel with advances in computer technologies and gradually developed into an interdisciplinary research field closely integrated with the social sciences. Contemporary IS research conceptualizes systems not only in terms of their technological infrastructure but also through their social, organizational, and cultural embeddedness (Adam & Fitzgerald, 2000). This broader understanding reflects a shift away from purely technical definitions toward more context-sensitive perspectives. In the literature, IS has commonly been examined through four prevailing approaches technological, social, socio-technical, and process-oriented each highlighting different dimensions of the interaction between technology, people, and organizations (Boell & Cecez-Kecmanovic, 2015). This classification underscores the argument that the study of IS necessarily involves attention to both technical operations and human–organizational interfaces.

One of the most influential theoretical contributions to the IS field is the FRISCO approach. Developed under the patronage of the International Federation for Information Processing (IFIP), FRISCO (Framework of Information System Concepts) aims to establish a coherent and cross-disciplinary conceptual foundation for IS research. Drawing on insights from philosophy, linguistics, computer science, mathematics, and the social sciences, FRISCO explicitly conceptualizes information systems not merely as technical artifacts but as socio-technical and organizational systems embedded within institutional contexts (Hesse & Verrijn-Stuart, 2000). By systematizing and clarifying a broad set of foundational concepts, FRISCO provides linguistic, ontological, and social accounts of IS, thereby strengthening the theoretical rigor of the field (von Braun et al., 2000). A central implication of this framework is the view that IS concepts are socially constructed rather than individually defined, emphasizing the role of collective, institutional, and societal structures in shaping information systems (Stamper, 2000).

The theoretical development of IS has been shaped by contributions from a wide range of academic disciplines, including philosophy, sociology, economics, management sciences, and engineering (Gregor & Hart, 2005). These interdisciplinary influences have expanded the theoretical landscape of IS research and enabled the adaptation of social science theories such as actor-network theory, systems theory, and structuration theory to explain the complex interactions between technology and human behavior in organizational contexts (Smith & Weistroffer, 2016). As the scope of IS research has broadened from macro-level societal impacts to micro-level user behavior, scholars have increasingly emphasized the importance of cultural, political, and institutional dimensions alongside technical considerations (Trauth et al., 2018).

2.2. Historical Evolution of the Information Systems Discipline

a. First Era (1940–1960): The Data Processing Age

In its earliest phase, IS was closely associated with the development of large-scale computing technologies and was primarily understood as a set of tools for data processing, accounting, and military applications. Technologies such as punch card systems, early electronic computers (e.g., ENIAC and UNIVAC), and Hollerith machines played a central role during this period. Institutional initiatives, including IBM's early commercial systems and the ARPA projects of the U.S. Department of Defense, significantly shaped early IS applications (Adam & Fitzgerald, 2000). The dominant theoretical orientation of this era was systems theory, which conceptualized organizations as input-output systems and emphasized efficiency, control, and transaction processing (Smith & Weistroffer, 2016).

b. Second Era (1960–1980): Information Governance and Organizational Approaches

From the 1960s onward, IS began to be increasingly associated with organizational decision-making processes rather than solely operational efficiency. Key technological developments during this period included Management Information Systems (MIS), Decision Support Systems (DSS), and Database Management Systems (DBMS). Herbert Simon's decision-making theory provided an important theoretical foundation by emphasizing that IS should generate managerial value beyond basic data processing (Lightner & Nah, 1998). While U.S.-based research tended to emphasize centralization, control, and managerial effectiveness, European scholars particularly in Germany and the United Kingdom focused more on conceptual modeling and systemic approaches to information systems (Koenig et al., 2002). These divergent traditions contributed to the diversification of IS theory and practice.

c. Third Era (1980–2000): Personal Computing, the Internet, and Globalization

The widespread adoption of personal computers and network infrastructures during the 1980s and 1990s significantly expanded access to information and transformed IS into systems serving users at multiple organizational levels. This period saw growing scholarly attention to individual-level technology use,

leading to the development of behavioral adoption models such as the Theory of Planned Behavior (TPB) and the Technology Acceptance Model (TAM) (Soper et al., 2014). At the same time, social theories including Actor-Network Theory and Structuration Theory further enriched IS research by conceptualizing technology as socially embedded rather than merely instrumental (Furneaux et al., 2007). These developments reinforced the view that IS outcomes emerge from the interaction between technical artifacts and social practices.

d. Fourth Era (2000–Present): Digitalization, Cloud Computing, and Artificial Intelligence

d.1. Pre-Pandemic Period (2000–2019)

Since the early 2000s, IS research has increasingly focused on digital transformation as a central organizing theme. Technologies such as cloud computing, big data analytics, social and mobile platforms, and the Internet of Things (IoT) have redefined information systems as strategic assets for organizational competitiveness rather than tools for operational efficiency alone (Fernández-Rovira et al., 2021; Vial, 2019). These technological shifts stimulated theoretical debates on sociomateriality, algorithmic transparency, and ethical governance in data-intensive systems (Zhang et al., 2021). Empirical studies from developing economies further demonstrated that IS challenges are not confined to Western contexts but are global in scope, often shaped by localization constraints and uneven technological adoption (Asare & Ajigini, 2017; Giest et al., 2025). During this period, IS research also began to move beyond traditional acceptance models toward platform-based and ecosystem-oriented theories, accompanied by increased use of embedded and mixed-method research designs (Ahmed et al., 2021).

d.2. Post-Pandemic Period (2020–Present)

The COVID-19 pandemic marked a critical turning point for IS research, redirecting scholarly attention toward issues of digital resilience, crisis informatics, and remote coordination (Sun & Guo, 2024). As organizations increasingly relied on digital infrastructures to maintain continuity, concerns related to data privacy, algorithmic fairness, and responsible artificial intelligence gained prominence. Advances in human–AI collaboration and the use of real-time data streams opened new methodological and ethical frontiers for IS research (Saurabh et al., 2022). Simultaneously, growing awareness of the societal and environmental implications of digitalization prompted renewed interest in aligning IS development with sustainability goals and addressing global inequalities in digital access (Goel et al., 2024; Wen & Bajuri, 2025). As a result, contemporary IS literature reflects a multi-layered theoretical landscape characterized by ethical governance, sustainability, and global contextual sensitivity.

3. FROM INFORMATION SYSTEMS TO MANAGEMENT INFORMATION SYSTEMS

By integrating organizational, cultural, and societal contexts, the IS discipline gradually evolved from an initially technical endeavor into a broad interdisciplinary research field (Struijk et al., 2022). Within

this historical trajectory, MIS emerged as a managerial orientation of IS, primarily concerned with the use of information systems to support decision-making processes. Rather than representing a purely technical extension of IS, MIS reflects a distinct epistemological emphasis shaped by managerial, organizational, and socio-institutional concerns. While IS research often adopts abstract, holistic, and socio-technical perspectives to understand technology within broader social systems, MIS focuses more explicitly on action-oriented knowledge aimed at managerial decision support, planning, and control (Boehmer, 2021; Mason & Mitroff, 1973; Mishra, 2013; Stern, 1970).

The post–World War II increase in computing power facilitated the emergence of IS as a field concerned with the processing and organization of information. Over time, IS incorporated theoretical influences from management science, philosophy, systems theory, and sociology, thereby developing into a socio-technical construct rather than a purely engineering-oriented practice (Backhouse et al., 1991; Hassan, 2019; Orman, 1988). During this same period, organizational adoption of IS accelerated, creating the conditions under which MIS took shape. The term Management Information Systems gained prominence in the early 1960s, particularly through academic work at Harvard Business School led by scholars such as Dearden and McFarlan (Power et al., 2016). This period marked a fundamental conceptual shift: information systems were no longer viewed solely as tools for data processing but increasingly as instruments that actively supported managerial decision-making and organizational strategy.

Table 1. Historical and Theoretical Phases of IS and MIS

Period	**Dominant Technologies**	**Key Theoretical Perspectives**	**Focus in IS**	**Implications for MIS**
1940-1960	Mainframe computers, punch cards	Systems Theory	Data processing, operational efficiency	Early managerial reporting
1960-1980	MIS, DSS, DBMS	Decision Theory, Management Science	Organizational decision support	Emergence of MIS as a managerial function
1980-2000	PCs, networks, Internet	Behavioral Models, Structuration Theory, ANT	User adoption, socio-technical systems	Managerial adoption and system use
2000-2019	Cloud, Big Data, Mobile, IoT	Socio-technical & Sociomaterial Approaches	Digital transformation, platforms	Strategic management, knowledge systems
2020-Present	AI, automation, data-driven systems	Ethics, Governance, Sustainability	Digital resilience, crisis informatics	Ethical decision-making, digital governance

As summarized in Table 1, the transition from Information Systems to Management Information Systems was driven by a set of interrelated organizational, technological, and theoretical forces. Three interrelated forces contributed to this transition. First, IS increasingly became embedded in organizational decision-making processes, moving beyond the automation of inputs and outputs toward analytical and forecasting functions that enabled managerial judgment (Simon, 1977; Lightner & Nah, 1998). Second, information itself came to be recognized as a strategic organizational asset rather than a mere by-product of operational activity. This shift redirected attention from data processing to information value, positioning MIS as a mechanism for managing information resources, supporting strategic decisions, and achieving competitive advantage (Mason & Mitroff, 1973; Power et al., 2016). Third, advances in computing technologies facilitated a broader transformation from data processing systems to knowledge-based decision systems. Traditional IS architectures were gradually complemented and in some cases replaced by MIS capable of interpreting information, generating decision alternatives, and supporting organizational intelligence (Hassan, 2019; Vial, 2019).

The epistemological orientation of MIS was further shaped by the incorporation of management and decision theories. In particular, Herbert Simon's theory of bounded rationality provided a foundational framework by emphasizing that managerial decision-making operates under conditions of limited information and cognitive constraints. From this perspective, MIS supports decision-makers by structuring information, reducing complexity, and enabling the comparison of alternatives within bounded rational conditions. Consequently, MIS can be understood not merely as a functional application of IS but as a domain characterized by a specific mode of knowledge production one that translates information into actionable managerial insight.

4. THE RELATIONSHIP BETWEEN IS AND MIS

Historically, the IS discipline evolved through the integration of computer technologies into organizational structures. Over time, by incorporating conceptual frameworks from the social sciences, IS moved away from technological determinism toward a more complex socio-technical orientation (Luna-Reyes et al., 2005; McLeod & Doolin, 2012; Patnayakuni & Ruppel, 2010). Consequently, IS came to be understood not merely as an engineering practice, but as a research field situated at the intersection of management paradigms, organizational theory, and information society studies. Within this broader intellectual landscape, MIS emerged as a managerial orientation that applies IS knowledge to organizational decision-making contexts. However, the relationship between IS and MIS cannot be reduced to a simple distinction between theory and practice. MIS is also theoretically grounded and exhibits its own conceptual diversity, shaped by managerial, organizational, and socio-cultural concerns (Power et al., 2016).

As the IS discipline expanded, its epistemological foundations diversified. Positivist approaches were increasingly complemented by interpretive, critical, and post-structuralist paradigms. Methodologies

such as ethnography, case studies, and hermeneutic analysis gained prominence, reflecting a growing recognition that IS research must address organizational meaning-making, cultural change, and knowledge production alongside technological artifacts. The emergence of MIS in the 1960s was closely tied to the institutional embedding of IS within organizations. Strongly influenced by management science particularly in the United States MIS was formalized as an infrastructure for managerial decision support. During this transformation, technical back-end systems evolved into information management systems, decision support tools, and eventually platforms for strategic planning. While this shift positioned MIS as a core organizational component rather than a purely technical solution, critical IS scholarship has also emphasized that such developments reinforced power relations surrounding information control and increased organizational dependence on technological systems (Thow-Yick, 1994).

From the 1980s onward, MIS research increasingly acknowledged the role of individual users in shaping system design and use. Behavioral acceptance models such as TAM, TPB, and TRA emphasized psychological and experiential factors alongside technical requirements (Alves et al., 2020; Edstrom, 1977; Goodhue, 1995). These models made important contributions to understanding system adoption and use in managerial contexts. However, they have also been criticized for portraying users as largely passive actors who adapt to predefined systems. In response, critical perspectives argued that users actively shape, negotiate, and co-construct technologies within organizational settings (Pratt et al., 2005).

The acceleration of digitalization since the early 2000s has further reshaped the relationship between IS and MIS. As technologies such as big data analytics, cloud computing, artificial intelligence, and the Internet of Things proliferated, MIS increasingly functioned as a catalyst for organizational change rather than merely a support tool. In this context, the relationship between technology and society is no longer understood as unidirectional; instead, it is viewed as mutually constitutive, with technologies and social practices continuously shaping one another (Takahara et al., 2008).

Defining the IS–MIS relationship solely in terms of theory versus practice is therefore insufficient. Both fields are inherently interdisciplinary, shaped by the dynamic interaction of technology, information, and society. While IS primarily situates information systems within broader social and institutional contexts, MIS concentrates on the strategic and managerial implications of these systems within organizations. Crucially, MIS should also be understood as a mechanism through which institutional norms are reproduced, access to knowledge is structured, and information use is governed. Recognizing these ethical, political, and societal dimensions allows IS and MIS research to move toward more accountable, transparent, and inclusive approaches.

5. THEORETICAL FOUNDATIONS OF IS AND MIS

This section reviews the main theoretical foundations that have shaped the development of IS and MIS. It discusses how these theories emerged in response to changes in technology, organizations, and society. The aim is to show how IS and MIS evolved together, what ideas influenced their growth, and how their theoretical bases have expanded over time. This review also prepares the ground for the next section, where the interaction and boundary between IS and MIS will be discussed.

a. Systems Approaches (1940–1960)

In the years following World War II, rapid advances in computing and industrial production created a need to understand organizations as systems. General Systems Theory and cybernetics became the main theoretical lenses during this period. Organizations were seen as input–process–output structures, and information systems were understood as mechanisms for processing data and improving efficiency.

In this context, IS was mainly technical. Its goal was to make operations faster and more reliable. Early frameworks such as FRISCO later aimed to organize and define the core concepts of IS more clearly (Hesse & Verrijn-Stuart, 2000). Although MIS had not yet emerged as a separate field, the first management-oriented reporting and accounting systems were developed at this time. They were early attempts to provide managers with information for decision-making rather than only raw data (Stern, 1970).

b. Decision Theories and Managerial Perspectives (1960–1980)

As computing became more integrated into organizations, researchers started to focus on how information systems could support management decisions. The key theoretical influence came from Herbert Simon's theory of bounded rationality, which explained that managers often make decisions under limited information and time. Information systems could help overcome these limits by organizing and presenting relevant data for decision-making (Lightner & Nah, 1998).

During this period, the term "Management Information Systems" gained popularity, particularly through work at Harvard Business School. IS research also became more interested in linking system design with organizational structures. European researchers focused more on conceptual modeling and systems thinking, while American studies emphasized control and managerial value (Koenig et al., 2002). MIS gradually took shape as a practical tool for planning, reporting, and supporting decisions at different levels of management (Mason & Mitroff, 1973; Power et al., 2016).

c. Behavioral and Individual-Centered Theories (1980–2000)

The spread of personal computers in the 1980s and the rise of the internet in the 1990s shifted attention from organizations to individual users. Researchers began to study why people choose to use or reject new technologies. This led to the development of behavioral theories such as the Theory of Reasoned

Action (TRA), the Theory of Planned Behavior (TPB), and the Technology Acceptance Model (TAM) (Soper et al., 2014).

These models helped to explain user attitudes, intentions, and perceptions of usefulness and ease of use. IS research started to include more empirical studies and surveys to measure these factors. In the MIS field, these behavioral insights were connected to managerial concerns such as training, interface design, and system success indicators (Edstrom, 1977; Alves et al., 2020). Some critical researchers, however, argued that these theories often treated users as passive actors, ignoring how people can actively shape and adapt technologies in their work (Pratt et al., 2005).

d. Socio-Technical and Sociomaterial Approaches (2000–Present)

Since the early 2000s, the digital transformation of business and society has brought new challenges and theories to both IS and MIS. Technologies such as cloud computing, big data, IoT, and AI have changed the role of information systems from tools for efficiency to instruments of strategic advantage (Vial, 2019; Fernández-Rovira et al., 2021).

Socio-technical theories, Actor-Network Theory, and Structuration Theory became influential because they emphasize that technology and human actions are deeply connected and shape each other (Furneaux et al., 2007; Boell & Cecez-Kecmanovic, 2015). IS research increasingly examined how technologies influence culture, power, and organizational practices (Luna-Reyes et al., 2005; McLeod & Doolin, 2012). In MIS, the focus moved toward issues such as data governance, transparency, ethics, and sustainability (Saurabh et al., 2022; Goel et al., 2024).

The COVID-19 pandemic further accelerated this trend by introducing new topics such as digital resilience, remote work systems, and crisis informatics (Sun & Guo, 2024).

Over time, IS and MIS research have expanded methodologically. Early studies were mainly positivist and quantitative, relying on experiments and surveys. From the 1990s onward, interpretive and critical approaches gained importance. Researchers began to use case studies, ethnography, and action research to understand how systems function in real-life settings (Gregor & Hart, 2005). This diversification allowed IS and MIS to explore different levels of analysis: user-system interactions at the micro level, organizational processes at the meso level, and ecosystems and digital platforms at the macro level (Zhang et al., 2021). The choice of theory and method has become increasingly dependent on research questions and context rather than a single dominant paradigm.

In summary, IS places information systems within their social and institutional contexts, while MIS focuses on their managerial and strategic dimensions. The difference between the two is not simply a matter of theory versus practice. Both areas share rich theoretical diversity and continue to evolve together. Digital transformation has blurred their boundaries and created new spaces where IS and MIS

interact and co-evolve. The next section explores this interaction in detail and discusses how the boundaries between the two fields are being redefined in today's digital and ethical landscape.

6. THE INTERACTION BETWEEN IS AND MIS: REDEFINING BOUNDARIES

Historically, the relationship between IS and MIS has often been conceptualized in hierarchical terms, with MIS positioned as a managerial application of IS. However, contemporary developments increasingly suggest a shift toward a more interactive and horizontally structured relationship. The socio-technical foundations of IS (Boell & Cecez-Kecmanovic, 2015) and the decision-support orientation of MIS (Mason & Mitroff, 1973; Power et al., 2016) now intersect more closely than in earlier phases of the field. This convergence is also reflected at the institutional level of the discipline: field-level reflections published in MIS Quarterly, despite the journal's title, consistently define the domain as Information Systems rather than Management Information Systems, highlighting the consolidation of the field under a broader IS identity (Benbasat & Zmud, 2003).

Transformational processes such as digitalization, cloud computing, and artificial intelligence further illustrate that MIS has moved beyond a purely operational role, functioning instead as a strategic locus of organizational meaning-making and knowledge management (Vial, 2019; Saurabh et al., 2022). In this evolving context, MIS can no longer be understood solely as a subdomain of IS; rather, it reflects a differentiated epistemological orientation concerned with the interaction between information, decision processes, and technology within organizational settings.

This reconfiguration indicates a broader shift in the theoretical axes of both disciplines. IS continues to be characterized by a comprehensive socio-technical framework that situates technological practices within social structures, institutional arrangements, and cultural contexts (Hesse & Verrijn-Stuart, 2000; Luna-Reyes et al., 2005). MIS, by contrast, mobilizes this theoretical foundation within the domain of organizational decision-making and managerial action, focusing on how informational value is transformed into organizational and institutional outcomes (Lightner & Nah, 1998; Hassan, 2019). Moreover, MIS research increasingly engages with behavioral, ethical, and sustainability-related concerns (Goel et al., 2024; Wen & Bajuri, 2025), thereby intersecting with yet also extending the social and cultural dimensions traditionally emphasized in IS research. Consequently, the boundary between IS and MIS is less a matter of functional differentiation and more a reflection of distinct yet interrelated epistemological approaches to knowledge production and use.

This interdisciplinary interaction also foregrounds critical discussions of power, ethics, and governance. As Thow-Yick (1994) observes, information systems may function as normative instruments within organizational control processes. From a socio-material perspective informed by Orlikowski's structuration approach, technology is understood as being co-constituted with social relations rather than operating as an external force (Furneaux et al., 2007). Within this framework, MIS should not be viewed merely as a mechanism that reinforces managerial control, but as a socio-institutional agent that shapes

how access to information, transparency, and notions of fairness are produced and maintained. Taken together, these dynamics point to a redefinition of IS-MIS boundaries not as a fixed theoretical distinction, but as a multilayered and evolving structuring process that reflects broader transformations in the relationship between information, technology, and society.

7. DISCUSSION AND CONCLUSION

This study aims to provide a comprehensive theoretical and historical examination of the IS and MIS disciplines in order to clarify their conceptual interaction over time. The analysis shows that although IS and MIS initially diverged along technical and managerial lines, their boundaries have increasingly converged in response to developments such as digital transformation, artificial intelligence, and data-driven governance. These developments have reshaped both fields beyond their original functional distinctions.

While the IS literature primarily situates technology within broader social and organizational contexts through socio-technical and structural approaches, MIS research builds on these foundations by focusing on organizational decision-making, strategic management, and ethical governance. In this respect, MIS can no longer be understood merely as an applied extension of IS. Rather, it has developed a distinct epistemological orientation centered on action-oriented knowledge production, institutional transformation, and digital sustainability.

From a historical perspective, the theoretical trajectory that began with systems theory and decision-making models has evolved into a multidimensional framework incorporating behavioral, socio-technical, and socio-material approaches. Contemporary IS and MIS research increasingly reflects a holistic paradigm that extends beyond technical efficiency to include ethical, cultural, and sustainability considerations. This shift highlights the growing importance of interdisciplinary integration in understanding the evolving role of information systems in organizations and society.

The primary contribution of this study lies in offering a historically grounded and epistemologically informed synthesis of IS and MIS research. By tracing their co-evolution and highlighting their differentiated yet interconnected modes of knowledge production, the study contributes to ongoing debates about disciplinary boundaries and theoretical positioning within the field.

Despite these contributions, this study is limited to a qualitative and conceptual examination of the literature and does not include quantitative analyses of publication trends or citation patterns. Future research may build on this work by employing bibliometric and statistical methods to identify theoretical clusters, conceptual trajectories, and methodological orientations in IS and MIS research, as well as by further exploring issues related to digital inequality and contextual variation across global settings.

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GENİŞLETİLMİŞ ÖZET

SINIRLARIN YENİDEN TANIMLANMASI: BS VE YBS DİSİPLİNLERİNİN TEORİK BİR İNCELEMESİ

Bilgi Sistemleri (BS) ve Yönetim Bilişim Sistemleri (YBS), organizasyonlarda dijital teknolojilerin kullanımını anlamaya yönelik araştırmaların merkezinde yer alan, birbirleriyle yakından ilişkili iki disiplindir. Her iki alan da bilgi teknolojilerinin örgütsel süreçler, karar verme mekanizmaları ve toplumsal yapılar üzerindeki etkilerini incelemektedir. Ancak tarihsel gelişimleri, teorik yönelimleri ve epistemolojik öncelikleri bakımından belirli farklılıklar göstermektedir. Bu çalışma, BS ve YBS disiplinlerinin teorik kökenlerini ve tarihsel evrimini kavramsal ve tarihsel bir inceleme yoluyla ele alarak, bu iki alan arasındaki epistemolojik sınırların nasıl oluştuğunu, zaman içinde nasıl dönüştüğünü ve günümüz dijital bağlamında nasıl yeniden tanımlandığını ortaya koymayı amaçlamaktadır. Çalışmanın temel motivasyonu, literatürde BS ve YBS'nin çoğu zaman ya birbirinin yerine kullanılması ya da aralarındaki ilişkinin yalnızca teori ve uygulama ayrımı üzerinden açıklanmasıdır. Bu yaklaşım, her iki disiplinin sahip olduğu teorik çeşitliliği ve bilgi üretim biçimlerini yeterince yansıtmamaktadır. Bu bağlamda çalışmanın temel araştırma sorusu şu şekilde belirlenmiştir: Bilgi Sistemleri ve Yönetim Bilişim Sistemleri disiplinleri arasındaki epistemolojik sınırlar nasıl tanımlanabilir? Bu soruya yanıt ararken, disiplinlerin tarihsel gelişimi, hâkim teorik yaklaşımları ve teknolojik dönüşümlerle olan etkileşimi bütüncül bir bakış açısıyla ele alınmıştır.

Tarihsel olarak BS disiplini, 1940'lı ve 1950'li yıllarda büyük ölçekli bilgisayarların ortaya çıkışıyla birlikte veri işleme ve operasyonel verimlilik odaklı bir alan olarak gelişmiştir. Bu erken dönemde sistem teorisi ve sibernetik yaklaşımlar hâkim olmuş, örgütler girdi çıktı ilişkileri üzerinden kavramsallaştırılmıştır. 1960'lı yıllardan itibaren ise bilgi sistemlerinin yalnızca teknik araçlar olmadığı, aynı zamanda örgütsel karar alma süreçlerini destekleyebilecek yapılar olduğu anlayışı güç kazanmıştır. Bu dönemde Herbert Simon'un sınırlı rasyonellik kuramı, bilgi sistemlerinin yönetsel değer üretme potansiyeline teorik bir zemin sağlamıştır. Otomasyonların gelişmesi ve veri tabanları ile sağlanan entegrasyon üst yönetimin karar vermesinde etkin rol oynamıştır. Tüm bu gelişmeler YBS kavramının ortaya çıkmasına katkıda bulunmuştur. 1980'li ve 1990'lı yıllar, kişisel bilgisayarların ve internetin yaygınlaşmasıyla birlikte BS ve YBS araştırmalarında önemli bir kırılma noktası oluşturmuştur. Bilgisayarların birey bazında ulaşması BS'nin kullanım amacını değiştirmiştir. Yönetsel bağlamda karar verme amacıyla kullanılan teknolojiler stratejik bağlamda da güç kazandırmaya başlamıştır. Bu dönemde odak noktası, örgütsel düzeyden bireysel kullanıcıya evrilerek, Teknoloji Kabul Modeli (TKM), Planlı Davranış Teorisi (PDT) ve Akılcı Eylem Teorisi (AET) gibi davranışsal modeller literatürde yaygın biçimde kullanılmaya başlanmıştır. Bu teoriler, kullanıcıların algıları, tutumları ve niyetleri üzerinden sistem kullanımını açıklamaya çalışmıştır. Özellikle YBS araştırmalarında yönetsel sistemlerin başarısını ölçmede önemli bir rol oynamıştır. Bununla birlikte, bu yaklaşımlar kullanıcıları çoğu zaman pasif aktörler olarak ele aldığı gerekçesiyle eleştirilmiş ve daha eleştirel, yorumsamacı perspektiflerin gelişmesine zemin hazırlamıştır. 2000'li yıllardan itibaren dijital dönüşüm, büyük veri, bulut bilişim, mobil teknolojiler ve yapay zekâ gibi gelişmeler hem BS hem de YBS disiplinlerinin teorik yönelimlerini derinden etkilemiştir. Bu dönemde sosyo-teknik, sosyo-materyal ve yapılandırmacı yaklaşımlar ön plana çıkmış teknoloji ile insan, örgüt ve toplum arasındaki ilişkinin karşılıklı olarak kurulduğu vurgulanmıştır. Bilgi sistemleri artık yalnızca verimlilik sağlayan araçlar değil örgütsel dönüşümü tetikleyen, güç ilişkilerini yeniden şekillendiren ve etik soruları gündeme getiren yapılar olarak ele alınmaktadır. Özellikle YBS alanında, stratejik karar alma, veri yönetişimi, algoritmik şeffaflık ve dijital etik gibi konular giderek daha fazla önem kazanmıştır. COVID-19 pandemisi sonrası dönemde ise dijital dayanıklılık, uzaktan çalışma sistemleri ve kriz bilişimi gibi konular BS ve YBS araştırmalarında öne çıkmıştır. Bu süreç, bilgi sistemlerinin örgütsel süreklilik ve toplumsal sürdürülebilirlik açısından taşıdığı kritik rolü daha görünür kılmıştır. Aynı zamanda yapay zeka destekli karar sistemleri, insan-makine etkileşimi ve etik yönetişim gibi başlıklar, disiplinlerin epistemolojik sınırlarını daha da geçirgen hale getirmiştir.

Bu tarihsel ve teorik çerçeve doğrultusunda, çalışmada BS ile YBS arasındaki ilişkinin hiyerarşik bir alt-üst yapıdan ziyade, karşılıklı etkileşime dayalı, yatay ve bütüncül bir ilişki olarak ele alınması gerektiği savunulmaktadır. BS, teknolojik sistemleri yalnızca teknik araçlar olarak değil, aynı zamanda sosyal, kültürel, ekonomik ve kurumsal bağlamlar içinde şekillenen yapılar olarak konumlandırmaktadır. YBS ise bu geniş teorik çerçeveyi örgütsel karar alma süreçleri, yönetsel

uygulamalar ve stratejik değer yaratımı bağlamında somutlaştırarak pratiğe aktarmaktadır. Bu bağlamda YBS, BS'nin yalnızca uygulamaya dönük bir alt alanı olarak değerlendirilemez. YBS, kendine özgü epistemolojik varsayımlara, araştırma sorularına ve yöntemsel yaklaşımlara sahip, eylem odaklı, bağlamsal ve problem çözmeye yönelik bilgi üretimini merkeze alan bağımsız bir disiplin niteliği taşımaktadır. BS daha çok teknolojinin toplumsal ve örgütsel etkilerini anlamaya ve açıklamaya yönelirken, YBS bu bilgiyi yönetsel kararların desteklenmesi, örgütsel performansın artırılması ve rekabet avantajı sağlanması gibi somut hedefler doğrultusunda kullanmaktadır.

Nitekim bu çalışma, BS ve YBS disiplinlerinin tarihsel süreç içerisinde birbirlerinden kopuk biçimde değil, karşılıklı etkileşim içinde ve paralel olarak evrildiğini ortaya koymaktadır. Ancak bu ortak evrime rağmen, her iki alanın farklı teorik öncelikler, araştırma gelenekleri ve bilgi üretim biçimleri geliştirdiği görülmektedir. BS daha çok açıklayıcı ve eleştirel bir yaklaşım benimserken, YBS normatif ve uygulamaya dönük bir perspektif geliştirmiştir. Günümüzde dijital dönüşümün hızlanmasıyla gelişen teknolojiler ve platform ekonomileri gibi olguların yaygınlaşmasıyla birlikte BS ve YBS arasındaki sınırlar giderek daha da bulanıklaşmaktadır. Bu iki alan, etik, sürdürülebilirlik, veri yönetişimi ve toplumsal etki gibi ortak temalar etrafında yeniden şekillenmekte ve birbirini tamamlayan disiplinler olarak konumlanmaktadır. Bu çalışma, bilgi sistemlerinin hem örgütler hem de toplum üzerindeki değişen ve çok boyutlu rolünü daha iyi anlamayı ve BS ile YBS arasındaki kavramsal sınırların güncel bağlamda yeniden değerlendirilmesini amaçlamaktadır.