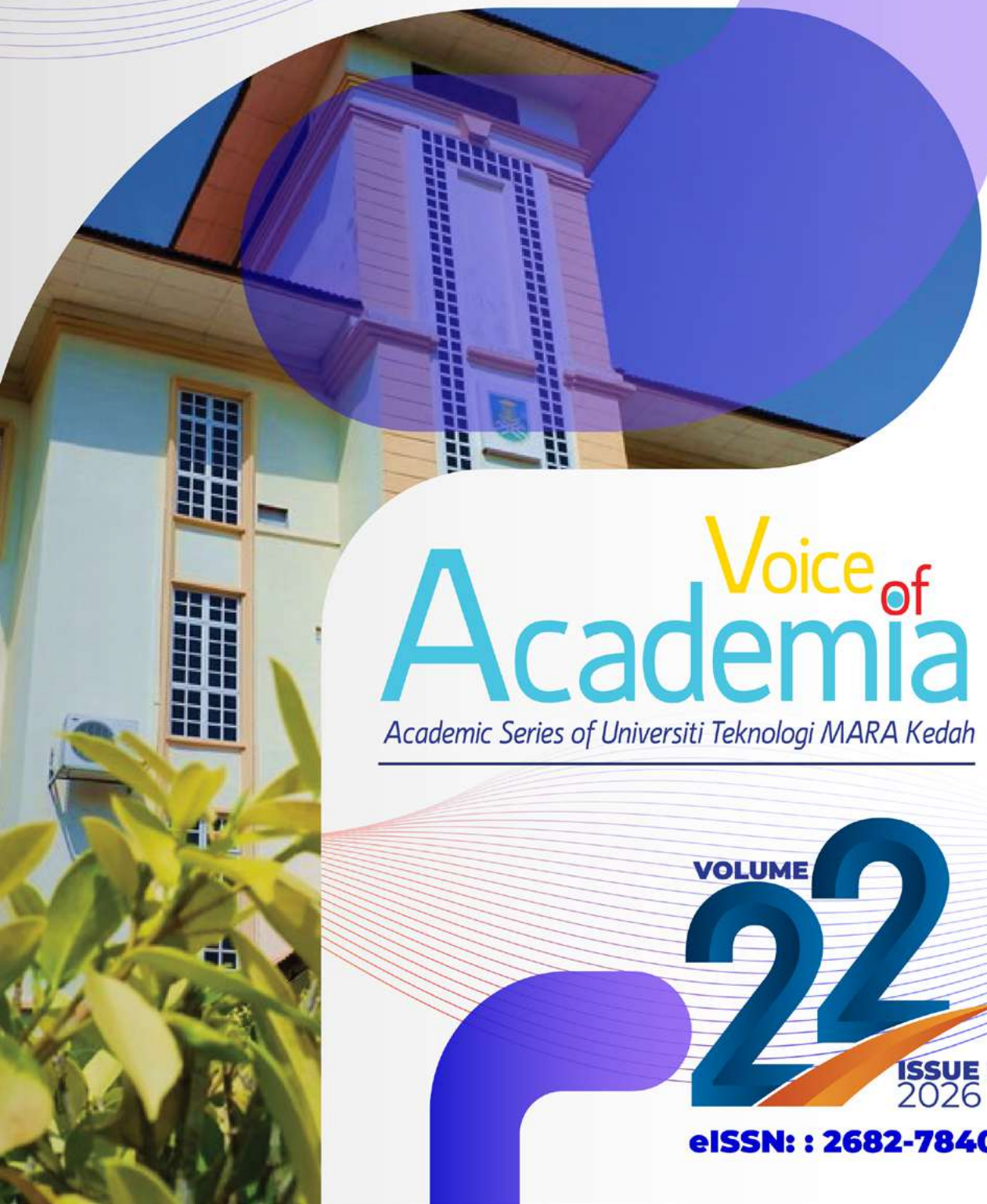

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A Critical Reassessment of Intellectual Capital Management in the Age of Algorithmic Management

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ABSTRACT

Traditional Intellectual Capital Management (ICM) is founded on a possession-oriented perspective that assumes organizations achieve sustainable competitive advantage through the accumulation, protection, and management of knowledge assets. However, the emergence of artificial intelligence (AI), distributed intelligence, and digital platform ecosystems has introduced organizational conditions that challenge several of the assumptions underpinning traditional ICM. Existing frameworks provide limited explanation of how intellectual advantage is created within increasingly AI-mediated organizational environments, where organizational intelligence is generated through interactions among human expertise, AI technologies, and interconnected digital ecosystems. Addressing this conceptual gap, this paper critically reassesses the theoretical foundations of traditional ICM through a conceptual research design employing abductive reasoning and a critical narrative review of the literature. The analysis identifies five foundational assumptions underpinning traditional ICM and evaluates their continuing relevance in AI-mediated organizational environments. Based on this analysis, the paper proposes knowledge Orchestration as an alternative conceptual perspective that reconceptualises intellectual advantage as the organizational capability to coordinate, integrate, and govern distributed intelligence across human, technological, and relational domains. The study further reconceptualises the traditional three-capital architecture by positioning human capital as an intelligence coordination capability, structural capital as an intelligence infrastructure, and relational capital as an intelligence ecosystem. By extending traditional Intellectual Capital Management theory, the proposed framework provides a conceptual foundation for understanding intellectual advantage in the age of artificial intelligence and offers directions for future research on knowledge orchestration and human–AI collaboration.

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1.0 INTRODUCTION

In contemporary organizations, competitive advantage is increasingly derived from intangible resources rather than physical assets. Knowledge, innovation, expertise, and organizational relationships have become important drivers of value creation, leading to growing scholarly and managerial interest in Intellectual Capital Management (ICM) (Wamba-Taguimdje et al., 2020). Over the past three decades, ICM has emerged as a prominent framework for understanding how organizations develop, utilise, and sustain intellectual resources to enhance organizational performance and long-term competitiveness (Teece, 2020). Central to this perspective is the assumption that valuable knowledge resources can be identified, managed, and leveraged to generate strategic advantage, although this perspective has been criticised for giving comparatively less attention to the contested, tacit, and socially embedded nature of organizational knowledge (Nambisan et al., 2020).

The growing adoption of artificial intelligence (AI) is reshaping this understanding of intellectual capital. Unlike earlier generations of digital technologies that primarily supported information processing, contemporary AI systems increasingly contribute to organizational analysis, decision support, and knowledge generation through advanced computational capabilities (Raisch & Krakowski, 2021). As organizations integrate generative AI and machine learning technologies into their operations, knowledge creation is no longer confined to human actors or internally managed organizational systems. Instead, organizational intelligence increasingly emerges through interactions among human expertise, AI-enabled technologies, and external digital platforms (Faraj et al., 2021). These developments raise important questions regarding the nature of organizational knowledge, the role of human expertise, and the extent to which AI-generated outputs should be understood as contributors to organizational intelligence (Glikson & Woolley, 2020).

These developments present important challenges for traditional Intellectual Capital Management. Existing ICM frameworks continue to emphasise the acquisition, accumulation, and internal management of knowledge assets as the primary basis of intellectual advantage. These perspectives were developed within a knowledge economy characterised by assumptions of knowledge scarcity, human-centred expertise, and organizational control. However, AI-mediated organizational environments increasingly operate through distributed intelligence, algorithmic decision support, and digitally connected ecosystems, where organizational knowledge is generated through interactions that frequently extend beyond organizational boundaries (Kellogg et al., 2020). Consequently, assumptions that intellectual advantage derives primarily from internally possessed knowledge assets may provide a less comprehensive explanation of how organizations create value in contemporary AI-mediated environments (Sadowski, 2020). At the same time, the growing reliance on AI-supported decision-making introduces new questions concerning governance, accountability, human oversight, and the evolving role of employees within organizational knowledge processes (Delfanti, 2021).

Despite growing research on artificial intelligence and digital transformation, comparatively limited attention has been devoted to examining how AI reshapes the foundational assumptions underpinning traditional Intellectual Capital Management. Existing studies have largely focused on the potential benefits of AI for organizational performance, innovation, and decision-making, frequently positioning AI as an enabling organizational technology (Mikalef & Gupta, 2021). Comparatively less attention has been given to how AI influences organizational knowledge creation, distributed intelligence, human oversight, and the

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changing relationship between technological capabilities and intellectual capital (Noy & Zhang, 2023). This gap is particularly important because AI-mediated organizational environments require employees not only to generate knowledge but also to interpret, validate, and govern AI-generated outputs within increasingly complex organizational settings (Makarius et al., 2020).

This paper argues that the principal limitation of traditional Intellectual Capital Management lies in its continued reliance on a possession-oriented understanding of intellectual advantage. While the three dimensions of human capital, structural capital, and relational capital remain theoretically relevant, the assumptions through which these dimensions are interpreted require reconsideration within AI-mediated organizational environments. Accordingly, this paper proposes **knowledge orchestration** as an alternative conceptual perspective for understanding how organizations create and sustain intellectual advantage in the age of artificial intelligence. By critically examining the assumptions underpinning traditional ICM and evaluating their adequacy within contemporary organizational environments, the paper develops a reconceptualized framework that positions knowledge orchestration as the organizational capability to coordinate, integrate, and govern distributed intelligence across human, technological, and relational domains (Haefner et al., 2021). In doing so, the study extends Intellectual Capital Management theory by providing a conceptual foundation for understanding intellectual advantage within increasingly AI-mediated organizational environments and offers directions for future research on the management of distributed organizational intelligence (Constantiou & Kallinikos, 2020).

2. THEORETICAL FOUNDATIONS OF TRADITIONAL INTELLECTUAL CAPITAL MANAGEMENT

2.1 Origins of Intellectual Capital Management in the Knowledge Economy

The emergence of Intellectual Capital Management (ICM) was closely associated with the transition from industrial economies to knowledge-based economies during the late twentieth century. As organizations increasingly competed through innovation, expertise, and intangible resources rather than physical assets alone, traditional measures of organizational value became insufficient for explaining differences in performance and competitiveness (Nambisan et al., 2020). This shift stimulated growing interest in understanding how knowledge-related resources contribute to organizational success and long-term value creation (Wamba-Taguimdje et al., 2020). At the same time, broader economic and technological developments, including digitalization and changing labour structures, also influenced how organizational knowledge was created, shared, and utilised, providing important context for the subsequent evolution of Intellectual Capital Management (Sadowski, 2020).

The theoretical foundations of ICM are primarily rooted in the Resource-Based View (RBV) and the Knowledge-Based View (KBV) of the firm. The RBV suggests that organizations achieve sustained competitive advantage through the possession and control of valuable, rare, inimitable, and non-substitutable resources (Teece, 2020). Building upon this perspective, the KBV identifies knowledge as the most strategically significant organizational resource, emphasizing its role in innovation, learning, and organizational adaptability. Together, these perspectives established the intellectual basis for viewing knowledge as a critical source of competitive advantage. However, subsequent developments in digital technologies and AI-mediated organizational environments suggest that these firm-centred perspectives may provide a less comprehensive explanation of value creation within increasingly networked and externally connected knowledge ecosystems (von Krogh, 2021; Haefner et al., 2021).

As organizations increasingly recognized the strategic importance of intangible resources, intellectual capital emerged as a concept for capturing forms of value that were not adequately reflected in conventional financial measures. Employee expertise, organizational routines, proprietary knowledge, innovation capabilities, and stakeholder relationships became recognized as important contributors to organizational performance. Consequently, Intellectual Capital Management evolved as a systematic approach for identifying, developing, leveraging, and preserving these intangible resources (Makarius et al., 2020). While this perspective has provided a valuable foundation for organizational knowledge management, contemporary AI technologies increasingly reshape how knowledge is generated, shared, and applied, suggesting that traditional understandings of intellectual capital may require reconsideration (Delfanti, 2021; Leonardi & Treem, 2020).

Importantly, the development of ICM was grounded in a particular understanding of how intellectual advantage is created. Knowledge was generally viewed as a scarce and strategically valuable asset that could be accumulated, retained, and protected by organizations. Competitive advantage was therefore assumed to arise from the possession and effective management of superior knowledge resources. This perspective shaped much of the subsequent development of intellectual capital theory. However, advances in generative AI and digital technologies have significantly expanded access to information and analytical capabilities, suggesting that organizational advantage may increasingly depend on the capability to interpret, validate, and apply knowledge effectively rather than on its possession alone (Raisch & Krakowski, 2021; Kellogg et al., 2020; Faraj et al., 2021).

Understanding these origins remains important because they reveal the theoretical assumptions upon which traditional ICM was constructed. The possession-oriented perspective reflected the organizational realities of the knowledge economy during its formative years, where intellectual resources were relatively difficult to replicate and organizational value was closely associated with ownership and control of knowledge assets. However, contemporary AI-mediated organizational environments increasingly challenge these assumptions by expanding access to analytical capabilities and facilitating knowledge generation across organizational and technological boundaries (Acemoglu & Restrepo, 2020; Brynjolfsson et al., 2020). Consequently, the historical foundations of ICM provide an important basis for critically examining whether these assumptions remain sufficient for explaining intellectual advantage in the age of artificial intelligence.

2.2 The Three-Capital Architecture of Intellectual Capital Management

One of the most influential developments within Intellectual Capital Management was the emergence of the three-capital architecture, which conceptualizes intellectual capital as comprising human capital, structural capital, and relational capital. This framework became widely adopted because it provided a practical and theoretically coherent means of categorizing the intangible resources that contribute to organizational value creation (Teece, 2020). For decades, the three-capital model has served as a widely accepted framework for understanding how organizations develop and manage intellectual resources. However, contemporary AI-mediated organizational environments suggest that the relationships among these forms of capital are becoming increasingly interconnected and dynamic, requiring broader consideration of how they interact within digital ecosystems (Haefner et al., 2021; Constantiou & Kallinikos, 2020).

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Human capital refers to the knowledge, skills, competencies, experiences, and creative capabilities possessed by employees. It is widely regarded as the primary source of innovation, problem-solving, learning, and organizational adaptability. Within traditional ICM, employees are viewed as carriers of valuable knowledge and expertise that can be leveraged to improve organizational performance. However, AI-mediated work environments increasingly suggest that the role of human capital extends beyond knowledge possession to include critical interpretation, contextual judgement, ethical oversight, and collaboration with AI-supported technologies (Delfanti, 2021; Glikson & Woolley, 2020).

Structural capital encompasses the institutionalized knowledge embedded within organizational systems, processes, databases, routines, policies, intellectual property, and technological infrastructures. Unlike human capital, which resides within individuals, structural capital remains within the organization and enables knowledge to be retained, shared, and utilized beyond the contributions of specific employees. However, increasing reliance on cloud-based technologies and external AI platforms suggests that structural capital may increasingly depend on technological infrastructures that extend beyond direct organizational ownership and control (Sadowski, 2020). These developments indicate that structural capital should be understood within the broader context of interconnected digital ecosystems.

Relational capital refers to the value derived from relationships with customers, suppliers, partners, regulators, investors, and other external stakeholders. These relationships provide organizations with access to information, resources, opportunities, trust, and collaborative capabilities. In contemporary organizational environments, however, relational capital increasingly extends to interactions with technology providers, platform operators, and data partners that influence organizational access to AI capabilities and digital infrastructures (Nambisan et al., 2020; Kellogg et al., 2020). Consequently, managing relational capital increasingly involves navigating complex digital ecosystems in addition to maintaining traditional stakeholder relationships.

Collectively, these three dimensions provide the dominant framework through which intellectual resources have traditionally been understood and managed. Although the three-capital architecture continues to offer a valuable foundation for Intellectual Capital Management, it was developed within a context where knowledge was primarily viewed as a resource that could be possessed, accumulated, and controlled. As organizational intelligence increasingly emerges through interactions among human expertise, AI technologies, and interconnected digital ecosystems, the explanatory focus may need to shift from the management of individual knowledge assets toward understanding how these forms of capital are coordinated and integrated to support organizational capability (Makarius et al., 2020; Raisch & Krakowski, 2021; Faraj et al., 2021).

3. RESEARCH METHOD

3.1 Conceptual Research Design

This study adopts a conceptual research design to critically reassess the adequacy of traditional Intellectual Capital Management (ICM) within contemporary AI-mediated organizational environments. A conceptual approach is appropriate when the objective is to evaluate existing theoretical assumptions, clarify emerging concepts, and develop alternative theoretical explanations rather than empirically testing causal relationships (Jaakkola, 2020). Given the rapid advancement of artificial intelligence and its implications for organizational knowledge processes, conceptual analysis provides an appropriate means

of examining whether the assumptions underpinning traditional ICM remain adequate for explaining contemporary organizational realities.

The study is guided by abductive reasoning, which enables iterative movement between established theory and emerging insights from contemporary literature (Cornelissen, 2020). Rather than accepting existing theoretical assumptions as given, the analysis seeks to identify conceptual inconsistencies between traditional ICM and AI-mediated organizational environments. Through this process, the study reassesses the explanatory adequacy of possession-oriented assumptions and develops an alternative conceptual perspective centred on knowledge orchestration. In doing so, the paper aims to extend existing theory by offering a revised explanation of how intellectual advantage is created within increasingly distributed and digitally connected organizational environments (George, Corvellec, & Whittington, 2021).

3.2 Literature Selection and Scope

The conceptual arguments presented in this paper are informed by a critical narrative review of literature drawn from several complementary domains, including Intellectual Capital Management, the Resource-Based View (RBV), Knowledge Management, Artificial Intelligence, Digital Transformation, and Digital Platform Ecosystems. A critical narrative approach was selected because it allows the integration, interpretation, and synthesis of diverse theoretical perspectives while facilitating conceptual development rather than statistical aggregation (Snyder, 2020).

Relevant literature was identified through structured searches of the **Scopus** and **Web of Science** databases because of their broad coverage of peer-reviewed management, information systems, and organizational studies research. Searches were conducted using combinations of keywords including *Intellectual Capital Management*, *Intellectual Capital*, *Knowledge Management*, *Artificial Intelligence*, *Algorithmic Management*, *Distributed Intelligence*, *Digital Transformation*, *Platform Ecosystems*, and *Human–AI Collaboration*. Additional seminal publications were identified through backward and forward citation tracking to ensure comprehensive coverage of influential theoretical contributions (Paul & Criado, 2020).

The literature selection was guided by three inclusion principles. First, seminal studies were included to establish the theoretical foundations and underlying assumptions of traditional Intellectual Capital Management. Second, recent publications were selected to capture contemporary developments relating to artificial intelligence, distributed intelligence, and AI-mediated organizational environments. Third, conceptual and critical management studies were incorporated where they contributed to understanding how AI reshapes organizational knowledge processes and intellectual advantage. Literature that focused primarily on technical AI development without organizational or management relevance was excluded.

The selected literature served three analytical purposes. First, it enabled the identification of the implicit assumptions underpinning traditional ICM. Second, it provided the theoretical basis for evaluating whether these assumptions remain appropriate within AI-mediated organizational environments. Third, it informed the development of the proposed knowledge orchestration perspective by integrating insights from contemporary research on distributed intelligence, organizational adaptation, and sociotechnical systems.

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3.3 Analytical Approach

The analysis followed a structured three-stage conceptual process consisting of conceptual deconstruction, critical evaluation, and conceptual synthesis. This sequential process ensured that the proposed theoretical contribution was systematically developed from existing literature rather than introduced as an isolated conceptual proposition.

The first stage involved conceptual deconstruction of traditional Intellectual Capital Management literature to identify the implicit assumptions underpinning the dominant three-capital architecture. Drawing on problematization methodology (Alvesson & Sandberg, 2021), the analysis identified five foundational assumptions relating to knowledge scarcity, human-centred expertise, organizational ownership of intelligence, cumulative knowledge accumulation, and technology as enabling infrastructure. These assumptions subsequently served as the analytical framework for the remainder of the study.

The second stage involved critical evaluation of these assumptions against contemporary developments associated with artificial intelligence, distributed intelligence, digital ecosystems, and algorithmic management. Rather than rejecting traditional ICM, this stage examined the extent to which its underlying assumptions continue to provide adequate explanations for organizational value creation within increasingly AI-mediated environments (Nambisan, Wright, & Feldman, 2020). Areas of conceptual alignment, emerging tensions, and explanatory limitations were systematically identified through comparison between traditional theory and contemporary literature.

The final stage involved conceptual synthesis, whereby insights generated from the preceding analysis were integrated into a revised conceptual perspective. This synthesis resulted in the development of the knowledge orchestration framework, which reconceptualises intellectual advantage as an organizational capability to coordinate, integrate, and govern distributed intelligence across human, technological, and relational domains. Rather than replacing the traditional three-capital architecture, the proposed framework extends its explanatory capacity by repositioning human capital, structural capital, and relational capital within the context of AI-mediated organizational environments (Suddaby et al., 2020).

4. FOUNDATIONAL ASSUMPTIONS UNDERPINNING TRADITIONAL INTELLECTUAL CAPITAL MANAGEMENT

The enduring influence of Intellectual Capital Management (ICM) is often attributed to its ability to explain value creation through intangible resources. However, beyond the widely adopted three-capital architecture lies a set of underlying assumptions that are not merely neutral theoretical starting points, but conceptual premises embedded within traditional management thinking (Contu, 2020). Although these assumptions are often implicit, they provide the conceptual foundation upon which traditional ICM frameworks are constructed. Understanding these assumptions is important because the explanatory power of any theory depends on the continued relevance of its underlying premises, which are not always subjected to critical re-examination (Alvesson & Kärreman, 2021). While these assumptions were well aligned with the historical context of the industrial and early knowledge economies, contemporary technological developments suggest that some of them may require reconsideration considering increasingly AI-mediated organizational environments (Fournier & Grey, 2020).

4.1 Knowledge as a Scarce and Strategically Differentiating Resource

A central assumption within traditional ICM is that knowledge represents a scarce resource capable of generating sustainable competitive advantage. Consistent with the Resource-Based View, organizations are assumed to compete by acquiring and protecting valuable knowledge assets that are difficult to imitate. This perspective positions knowledge scarcity as a primary source of strategic differentiation. However, the increasing accessibility of generative AI and digital knowledge platforms has substantially expanded access to information and analytical capabilities, reducing the exclusivity traditionally associated with specialized expertise (Birch, Cochrane, & Ward, 2021). As AI systems increasingly democratize access to knowledge, what was previously regarded as scarce expertise may become more readily available and reproducible across organizational contexts (Vallas & Christin, 2020). Consequently, competitive advantage may depend less on protecting scarce knowledge resources and more on the organizational capability to interpret, integrate, and apply distributed intelligence effectively (Arora, 2021).

4.2 Expertise Primarily Resides Within Human Actors

Traditional ICM assumes that knowledge creation and expertise originate primarily from human actors, viewing employees as the principal carriers of organizational intelligence and innovation. While this assumption has provided a useful foundation for understanding intellectual capital, AI-mediated work environments increasingly suggest that organizational expertise emerges through interactions between human judgement and algorithmic capabilities rather than from human actors alone (Dignum, 2021). At the same time, employees continue to play an essential role in validating, contextualising, and interpreting AI-generated outputs, responsibilities that introduce new cognitive and organisational demands (Delfanti, 2021). These developments indicate that expertise should be understood as a distributed capability involving both human and technological actors, rather than as an attribute residing exclusively within individuals. Consequently, traditional ICM may underrepresent the broader sociotechnical infrastructure through which organizational intelligence is increasingly created and sustained (Gandini, 2021).

4.3 Organizational Intelligence is Internally Owned and Controlled

Another important assumption is that organizational intelligence can be largely owned, controlled, and managed within organizational boundaries. Traditional ICM emphasizes embedding knowledge within internal systems to ensure continuity and organizational learning. However, the growing reliance on cloud computing, platform ecosystems, and third-party AI providers suggests that organizational intelligence increasingly depends on infrastructures that extend beyond direct organizational ownership (Cusumano, Yoffie, & Gawer, 2020). Rather than being fully controlled internally, many contemporary knowledge systems operate through externally managed digital platforms, creating new forms of organizational dependence and governance challenges (Van Dijck, Poell, & De Waal, 2021). These developments suggest that the traditional conception of structural capital as a predominantly internal organizational asset may require reconsideration within increasingly interconnected digital ecosystems (Gawer, 2021).

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4.4 Knowledge Accumulation Strengthens Competitive Advantage

Traditional ICM assumes that the accumulation of knowledge assets contributes to stronger organizational performance by expanding organizational memory and strengthening intellectual resources over time. While this assumption has historically supported organizational learning, AI-mediated environments suggest that the strategic value of knowledge may depend less on the quantity of accumulated information than on its quality, relevance, and responsible application (Martin, 2020). Large-scale data accumulation may also introduce challenges associated with technical complexity, privacy governance, and algorithmic bias if not appropriately managed (Mikalef & Gupta, 2021). Consequently, organizational value creation increasingly depends on the capability to selectively integrate, interpret, and apply knowledge in ways that support organizational agility and informed decision-making, rather than on accumulation alone (Lynch, 2020).

4.5 Technology as an Enabling Infrastructure Rather Than a Cognitive Participant

A final assumption concerns the role of technology, which traditional ICM positions primarily as an enabling infrastructure supporting knowledge storage, communication, and organizational learning. However, contemporary AI systems increasingly participate in information processing, decision support, and organizational coordination in ways that extend beyond the traditional role of passive technological infrastructure (Seaver, 2020). Rather than functioning solely as neutral tools, AI-enabled technologies shape organizational processes, influence decision pathways, and mediate interactions among organizational actors (Gorwa, 2020). Recognising technology as an active participant within organizational knowledge processes therefore provides a broader understanding of how intellectual capital is created and mobilised in AI-mediated environments (Christin, 2020).

Collectively, these assumptions establish a traditional understanding of intellectual advantage centred on knowledge possession, human expertise, organizational control, cumulative knowledge accumulation, and technology as supporting infrastructure. While these assumptions provided a robust foundation for explaining value creation in the industrial and early knowledge economies, contemporary AI-mediated environments suggest that their explanatory capacity may be increasingly constrained. The following section examines how emerging organizational realities reshape these foundational assumptions and highlights the need for an alternative conceptual perspective capable of explaining intellectual advantage in the age of algorithmic management.

5. AI-MEDIATED ORGANIZATIONS AND THE DESTABILIZATION OF TRADITIONAL ICM ASSUMPTIONS

The assumptions underpinning traditional Intellectual Capital Management emerged within organizational environments characterized by knowledge scarcity, human-centred expertise, and relatively stable organizational boundaries. The emergence of artificial intelligence has substantially reshaped these conditions by transforming how knowledge is generated, accessed, and mobilised within organizations (Nambisan et al., 2020). Rather than functioning solely as another technological resource, AI increasingly participates in organizational knowledge processes by supporting analysis, decision-making, and coordination across human and technological actors (Acemoglu & Restrepo, 2020). Consequently, several assumptions underpinning traditional ICM may require reconsideration, as they provide a more limited

explanation of value creation within contemporary AI-mediated organizational environments (Sadowski, 2020).

5.1 The Commodification of Knowledge Production

One of the most significant consequences of generative AI is the increasing scalability and commodification of knowledge production. AI systems are capable of generating reports, analytical insights, and strategic recommendations at unprecedented speed and scale, reshaping the traditional relationship between expertise and organizational value creation. These developments challenge the long-standing assumption that knowledge scarcity remains the primary source of competitive differentiation (Raisch & Krakowski, 2021). Although contextual expertise and professional judgement continue to provide strategic value, access to information alone is becoming less distinctive as comparable analytical outputs can increasingly be produced through widely accessible AI technologies (Faraj et al., 2021). Consequently, organizational advantage increasingly depends on the capability to critically evaluate, contextualise, and integrate AI-generated knowledge into organizational decision-making rather than simply possessing knowledge resources (Glikson & Woolley, 2020).

5.2 The Rise of Hybrid Human–AI Cognition

The growing integration of AI into organizational decision-making is transforming how organizational intelligence is generated and applied. Employees increasingly rely on AI-assisted technologies for information retrieval, forecasting, content generation, and decision support. At the same time, these technologies continue to depend on human oversight to validate outputs, provide contextual interpretation, and ensure responsible application (Delfanti, 2021). This development challenges the traditional assumption that organizational intelligence resides primarily within human actors by suggesting that expertise increasingly emerges through interactions between human judgement and algorithmic capabilities (Gandini, 2021). Consequently, intellectual value is better understood as a distributed capability that combines human expertise with AI-supported analytical capacity. Traditional ICM frameworks, which primarily associate intellectual value with human capital, may therefore require extension to capture these evolving sociotechnical relationships (Makarius et al., 2020).

5.3 Externalization of Organizational Intelligence

Artificial intelligence has accelerated the externalization of organizational intelligence. Organizations increasingly rely on cloud-based infrastructures, AI platforms, application programming interfaces (APIs), and external technology providers to support knowledge-intensive activities. This growing dependence on external intelligence ecosystems challenges the traditional assumption that intellectual resources can be fully owned, controlled, and managed within organizational boundaries (Cusumano et al., 2020). Instead, organizational value increasingly emerges through participation in broader digital ecosystems, where access to technological capabilities is often mediated by external platform providers and evolving governance arrangements (Van Dijck et al., 2021). Consequently, intellectual advantage depends not only on internal organizational resources but also on the capability to effectively manage relationships within interconnected digital ecosystems (Jacobides et al., 2021).

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5.4 Dynamic Intelligence Flows versus Static Knowledge Assets

AI-mediated organizational environments are characterised by continuous learning, rapid technological development, and dynamic flows of information. Machine learning systems evolve through ongoing data inputs, algorithms are regularly refined, and organizational knowledge can become outdated more quickly than under previous technological conditions. These developments challenge the traditional assumption that competitive advantage is primarily derived from the accumulation of static knowledge assets over time (Haefner et al., 2021). Although accumulated organizational knowledge remains important, its strategic value increasingly depends on the organization's capability to continuously update, integrate, and reconfigure intelligence in response to changing technological and environmental conditions (Constantiou & Kallinikos, 2020). Consequently, sustained organizational advantage is increasingly associated with adaptive intelligence capabilities that enable organizations to respond effectively to rapidly evolving AI-mediated environments (Teece, 2020).

6. THE CENTRAL THEORETICAL INADEQUACY OF TRADITIONAL INTELLECTUAL CAPITAL MANAGEMENT

The preceding discussion suggests that artificial intelligence extends beyond simply challenging the assumptions underpinning traditional Intellectual Capital Management (ICM); it substantially reshapes the organizational conditions in which those assumptions were originally developed. The commodification of knowledge production challenges the assumption of knowledge scarcity, hybrid human–AI cognition broadens conventional understandings of expertise, external intelligence ecosystems question assumptions of organizational ownership and control, and dynamic intelligence flows reduce the strategic relevance of static knowledge accumulation. Collectively, these developments indicate a broader conceptual limitation that traditional ICM remains largely grounded in a possession-oriented understanding of intellectual resources that may provide a less comprehensive explanation of value creation within increasingly networked and platform-dependent organizational environments (Sadowski, 2020).

At its core, traditional ICM is founded on a possession-oriented logic that assumes organizational value is created through the acquisition, accumulation, and control of knowledge resources. Human, structural, and relational capital are therefore conceptualised primarily as organizational assets that can be developed, managed, and protected to sustain competitive advantage (Contu, 2020). While this perspective has provided a valuable foundation for understanding intellectual capital, contemporary organizational environments increasingly rely on technological infrastructures, cloud-based platforms, and AI capabilities that extend beyond direct organizational ownership and control. Consequently, assumptions of complete organizational possession may no longer fully reflect how intellectual resources are created, accessed, and mobilised within contemporary digital ecosystems (Cusumano et al., 2020).

This possession-oriented perspective reflected the characteristics of earlier industrial and knowledge economies, where organizational boundaries were relatively stable and information flows were more contained. Under these conditions, accumulating and protecting knowledge assets represented a logical strategy for sustaining competitive advantage. However, AI-mediated organizational environments are increasingly characterised by distributed intelligence, interconnected digital infrastructures, and greater dependence on external technological ecosystems. Organizational value is therefore shaped not only by internally owned resources but also by the capability to participate effectively within broader networks of human expertise, AI technologies, and digital platforms (Gawer, 2021). As organizational intelligence

increasingly emerges through interactions across organizational and technological boundaries, assumptions centred primarily on ownership and control become less sufficient for explaining contemporary organizational capability (Gorwa, 2020).

These developments highlight an important conceptual mismatch between the assumptions underpinning traditional ICM and the realities of AI-mediated organizational environments. Although the three-capital architecture continues to provide a valuable framework for classifying intellectual resources, it offers more limited explanation of how intelligence is coordinated, integrated, and mobilised across interconnected human and technological systems that increasingly extend beyond organizational boundaries (Jacobides et al., 2021). Consequently, the traditional emphasis on managing internally controlled intellectual assets may require extension to account for the distributed and ecosystem-based nature of contemporary organizational intelligence (Makarius et al., 2020).

Accordingly, the principal theoretical limitation of traditional ICM lies not in its identification of human, structural, and relational capital, but in the possession-oriented logic through which these forms of capital are conceptualised. As organizational value increasingly emerges from distributed intelligence, hybrid human–AI cognition, and digitally connected ecosystems, a theoretical perspective centred primarily on ownership and control provides a more limited explanation of how intellectual advantage is created and sustained. These developments therefore suggest the need for an alternative conceptual perspective that moves beyond assumptions of knowledge possession and instead emphasises the coordination, integration, and governance of distributed intelligence across multiple organizational and technological domains (Dignum, 2021).

7. RECONCEPTUALIZING INTELLECTUAL CAPITAL MANAGEMENT

7.1 Knowledge Orchestration as the New Logic of Intellectual Advantage

The limitations of possession-oriented Intellectual Capital Management (ICM) necessitate a theoretical perspective capable of explaining how organizations create value in the age of algorithmic management. In response, this paper proposes knowledge orchestration as a new organizing logic for understanding intellectual advantage within AI-mediated organizational environments. Rather than representing a technological extension of traditional ICM, knowledge orchestration reconceptualises how organizations strategically coordinate, integrate, and govern distributed intelligence generated across human expertise, artificial intelligence systems, organizational infrastructures, and external digital ecosystems. Unlike traditional approaches that emphasize the protection and accumulation of internally owned knowledge assets, knowledge orchestration focuses on the continuous coordination of multiple intelligence sources operating within increasingly interconnected and externally dependent environments (Faraj et al., 2021).

Knowledge orchestration may be defined as the organizational capability to strategically coordinate, integrate, and govern multiple sources of intelligence that exist both within and beyond organizational boundaries. Rather than emphasizing the possession of knowledge assets, the concept focuses on managing the interactions among human expertise, algorithmic intelligence, organizational data, and external digital ecosystems to support informed and responsible decision-making. Under this perspective, intellectual advantage is derived not from the accumulation of knowledge resources, but from the organization's

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capability to continuously coordinate distributed intelligence while maintaining appropriate human oversight, contextual judgement, and ethical governance of AI-supported processes (Dignum, 2021; Glikson & Woolley, 2020).

Knowledge orchestration is conceptually distinct from both traditional knowledge management and resource orchestration, although it shares certain underlying assumptions regarding the strategic importance of organizational capabilities. Knowledge management primarily focuses on the creation, storage, sharing, and application of organizational knowledge to improve learning and performance. Resource orchestration extends this perspective by emphasizing how organizations structure, bundle, and leverage strategic resources to create competitive advantage. Knowledge orchestration differs from both perspectives by recognising that valuable intelligence is increasingly distributed across human actors, AI systems, digital infrastructures, and external platform ecosystems that often extend beyond the organization's direct ownership or control (Cusumano et al., 2020). Consequently, the strategic challenge is no longer limited to managing internal knowledge resources, but to coordinating diverse and interconnected sources of intelligence operating within AI-mediated organizational environments (Jacobides et al., 2021).

Within contemporary organizations, access to advanced analytical capabilities has become increasingly widespread through the adoption of generative artificial intelligence and digital platforms. However, competitive advantage is no longer derived solely from access to these technologies, but from the organization's ability to interpret, validate, and integrate AI-generated outputs into organizational decision-making. Although generative AI offers unprecedented speed and analytical capability, its outputs still require human contextual understanding, ethical judgement, and strategic interpretation to ensure organizational relevance and reliability (Raisch & Krakowski, 2021). Accordingly, organizations that successfully combine human expertise with algorithmic capabilities are better positioned to transform distributed intelligence into coherent, responsible, and value-creating decisions (Noy & Zhang, 2023).

From this perspective, intellectual advantage is dynamic rather than static. Organizations create value not through the accumulation of knowledge assets, but through their ability to continuously coordinate evolving intelligence flows across human, technological, and organizational domains. The effectiveness of this coordination influences organizational learning, innovation, adaptability, and long-term competitiveness within increasingly complex digital environments. Consequently, knowledge orchestration represents a sociotechnical capability that extends beyond conventional approaches to knowledge or asset management by emphasizing the integration of multiple sources of intelligence to support organizational performance (Makarius et al., 2020; Haefner et al., 2021).

Knowledge orchestration therefore represents a significant conceptual shift in the logic of Intellectual Capital Management. Whereas traditional ICM focuses primarily on acquiring, protecting, and accumulating knowledge assets, the knowledge orchestration perspective emphasizes the continuous coordination, integration, and governance of distributed intelligence across interconnected organizational ecosystems (Nambisan et al., 2020). This perspective provides the theoretical foundation for reconceptualising the traditional dimensions of intellectual capital and offers an alternative lens for understanding how organizations create and sustain intellectual advantage in the age of algorithmic management.

7.2 Reconceptualizing Human Capital, Structural Capital, and Relational Capital

The transition from knowledge possession to knowledge orchestration, illustrated in Figure 1, does not replace the traditional three-capital architecture but reconceptualises the roles of human capital, structural capital, and relational capital within AI-mediated organizational environments. Rather than functioning as independent knowledge assets, these forms of capital operate as complementary components that collectively enable organizations to coordinate and govern distributed intelligence. Accordingly, knowledge orchestration is realised through the interaction of these three forms of intellectual capital, each performing a distinct but interdependent role in supporting adaptive organizational capability (Teece, 2020).

Human capital is reconceptualized as an *intelligence coordination capability*. Traditional ICM views human capital as a repository of knowledge, but in the age of AI, this is a liability. The strategic value of human capital now lies in its role as the last line of defense against algorithmic error and bias. Employees are no longer just knowledge carriers; they are auditors, validators, and ethical interpreters whose higher-order cognitive skills—critical thinking, contextual judgment, and creativity—are essential for governing AI outputs (Delfanti, 2021). Intellectual advantage is associated not with what employees know, but with their resilience and capacity to manage the profound cognitive and emotional burden of constant algorithmic oversight (Gandini, 2021).

Structural capital is redefined as an *intelligence infrastructure*. Traditional ICM sees structural capital as an internal knowledge repository, which is a dangerous illusion in the modern era. In reality, structural capital is an intelligence infrastructure that is largely outsourced to and controlled by external cloud and AI platform providers (Van Dijck et al., 2021). Its strategic value no longer lies in storage, but in its ability to serve as a secure, adaptable interface between internal human judgment and external, black-boxed algorithmic systems. It is the fragile scaffolding upon which all orchestration activities precariously depend, making organizations vulnerable to the rentier logic of tech monopolies (Sadowski, 2020).

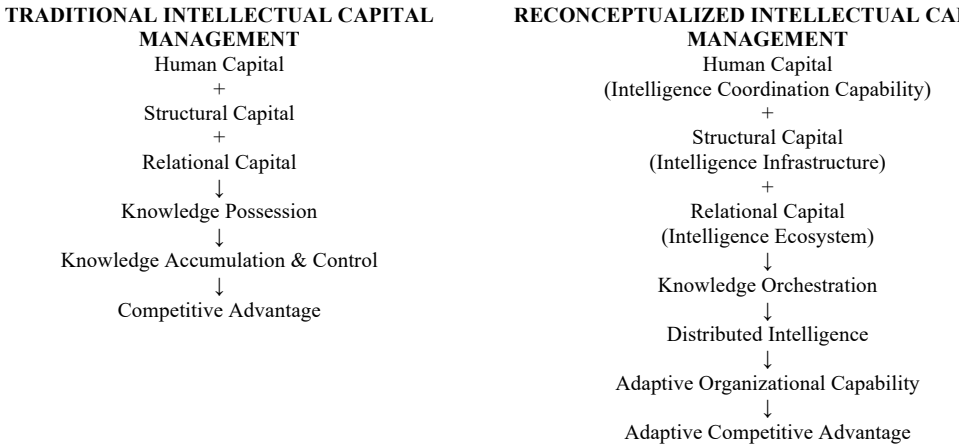

Figure 1. Reconceptualizing Intellectual Capital Management: From Knowledge Possession to Knowledge Orchestration

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Relational capital is reframed as an *intelligence ecosystem*. Traditional ICM defines relational capital through conventional, mutually beneficial stakeholder ties. Today, it is an intelligence ecosystem dominated by asymmetric power relations with technology vendors, platform operators, and data brokers (Constantiou & Kallinikos, 2020). These relationships are frequently dependencies rather than partnerships, where organizations trade their data and autonomy for access to critical AI capabilities. Competitive advantage depends on an organization's ability to navigate this extractive landscape and leverage external intelligence without becoming wholly subservient to platform governance structures (Gawer, 2021).

Collectively, this reconceptualization extend the traditional understanding of intellectual capital by positioning human capital, structural capital, and relational capital as interconnected components of a broader intelligence system. From this perspective, intellectual value is generated not through the accumulation of individual forms of capital, but through their coordinated interaction across human, technological, and organizational domains. Consequently, the strategic emphasis shifts from maximizing individual capital stocks to strengthening organizational capability for knowledge orchestration and adaptive performance within AI-mediated environments (Acemoglu & Restrepo, 2020; Leonardi & Treem, 2020).

8. PRACTICAL IMPLICATIONS

The proposed reconceptualization has important implications for organizations operating within increasingly AI-mediated organizational environments. Traditional Intellectual Capital Management (ICM), with its emphasis on accumulating employee expertise and managing internally owned knowledge assets, may provide a less comprehensive basis for organizational capability in contexts where intelligence is increasingly distributed across human and technological systems (Gandini, 2021). Consequently, organizations may need to complement traditional knowledge management practices with approaches that support the coordination, integration, and governance of distributed intelligence. This requires developing organizational capabilities that enable employees to effectively combine human judgement with AI-generated insights while ensuring appropriate oversight, ethical decision-making, and organizational accountability (Dignum, 2021).

Human resource strategies should therefore extend beyond the development of technical AI competencies to cultivate broader intelligence coordination capabilities. These capabilities include critical thinking, contextual judgement, creativity, collaborative problem-solving, and ethical decision-making, all of which enable employees to evaluate, interpret, and appropriately apply AI-generated outputs within organizational contexts (Raisch & Krakowski, 2021). At the same time, organizations should reconsider the role of structural capital by investing not only in internal knowledge repositories but also in flexible intelligence infrastructures that facilitate effective interaction between organizational expertise and externally provided AI and cloud-based technologies (Van Dijck et al., 2021).

Furthermore, organizations may need to broaden their understanding of relational capital to reflect the growing importance of digital ecosystems and technology partnerships. In addition to managing relationships with customers, suppliers, and other traditional stakeholders, organizations increasingly depend on technology providers, platform operators, and data partners that influence access to critical AI capabilities (Constantiou & Kallinikos, 2020). Managing these relationships requires balancing collaboration with appropriate governance, organizational autonomy, and responsible data management. Collectively, these implications suggest that sustainable intellectual advantage is increasingly associated

with an organization's capability to coordinate, integrate, and govern distributed intelligence across interconnected human, technological, and organizational domains rather than relying primarily on the possession and accumulation of knowledge assets (Sadowski, 2020).

9. FUTURE RESEARCH DIRECTIONS

The reconceptualization of Intellectual Capital Management presented in this paper opens several promising avenues for future research. As the proposed knowledge orchestration perspective remains conceptual, empirical investigation is needed to examine its theoretical validity, conceptual boundaries, and practical applicability across different organizational contexts (Haefner et al., 2021). First, future studies should investigate the dimensions and micro-foundations of knowledge orchestration capability and examine how it differs from related constructs such as dynamic capabilities and resource orchestration, particularly within AI-mediated and platform-based organizational environments (Jacobides et al., 2021).

Second, future research should examine the relationship between knowledge orchestration and a range of organizational outcomes, including innovation, organizational adaptability, competitive advantage, decision quality, and organizational resilience. In addition, researchers may explore how knowledge orchestration contributes to responsible AI implementation by supporting ethical governance, human oversight, and the management of AI-related risks, including algorithmic bias and decision errors (Glikson & Woolley, 2020).

Third, comparative and cross-industry studies would provide valuable insights into how human capital, structural capital, and relational capital contribute to knowledge orchestration across different organizational settings. Such research could examine whether the proposed framework operates differently in industries characterised by varying levels of AI adoption, digital maturity, and dependence on external technology platforms (Cusumano et al., 2020).

Future research may also examine the implications of knowledge orchestration for organizational governance, leadership, and work design. Questions relating to accountability, decision authority, human oversight, and organizational structures within hybrid human–AI environments remain underexplored and warrant further investigation (Makarius et al., 2020). Finally, longitudinal studies would enhance understanding of how organizations develop knowledge orchestration capabilities over time and how transitions from possession-oriented to orchestration-oriented approaches influence organizational learning, capability development, and long-term intellectual advantage (Leonardi & Treem, 2020).

10. CONCLUSION

Intellectual Capital Management has long provided a valuable framework for understanding how organizations create value through intangible resources. However, the emergence of artificial intelligence, distributed intelligence systems, and platform-based digital ecosystems has challenged several of the possession-oriented assumptions underpinning traditional Intellectual Capital Management (Van Dijck et al., 2021). This paper argues that while the three-capital architecture of human, structural, and relational capital remains conceptually relevant, its explanatory power increasingly depends on how these dimensions are coordinated within AI-mediated organizational environments rather than on their independent accumulation or ownership. Accordingly, the study proposes **Knowledge Orchestration** as an alternative

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conceptual perspective that emphasises the organizational capability to coordinate, integrate, and govern distributed intelligence across human, technological, and relational domains (Dignum, 2021). By reconceptualising intellectual capital as a dynamic organizational capability, this paper extends existing Intellectual Capital Management theory and provides a stronger conceptual foundation for understanding how intellectual advantage is created in contemporary organizations. In doing so, it contributes to the ongoing evolution of Intellectual Capital Management and offers a platform for future research on knowledge orchestration, distributed intelligence, and the governance of human–AI collaboration (Nambisan et al., 2020).

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Conflict of Interest Statement

The authors agree that this research was conducted in the absence of any self-benefits, commercial or financial conflicts and declare the absence of conflicting interests with the funders.

Authors' Contributions

Kardina Kamaruddin: Conceptualisation, methodology, formal analysis, framework development, writing – original draft, and manuscript preparation; **Noor Malinjasari Ali:** Conceptualisation, methodology, formal analysis, validation, writing – review and editing, and manuscript refinement.

Declaration Of Generative Ai In The Writing Process

During the preparation of this work, the authors used ChatGPT (OpenAI) to assist with language refinement, content organization, conceptual discussion, and manuscript editing. After using this tool, the authors reviewed, revised, and edited the content as needed and take full responsibility for the accuracy, originality, and integrity of the publication.

Data Availability/Supplementary Materials

Data sharing is not applicable to this article because it is a conceptual study based on the synthesis and analysis of existing literature, and no new datasets were generated or analysed.

Ethics Statement

The authors declare that this research did not involve human or animal subjects. This study is a conceptual paper based on existing literature and did not require ethical approval. No experimental procedures were conducted.

REFERENCES

Acemoglu, D., & Restrepo, P. (2020). Robots and jobs: Evidence from US labor markets. Journal of Political Economy, 128(6), 2188-2244. https://doi.org/10.1086/705716

Alvesson, M., & Kärreman, D. (2021). Critical theory and the study of organizations. Organization Studies, 42(1), 3-22. https://doi.org/10.1177/0170840620972308

Arora, S. (2021). The new enclosure: The appropriation of virtual land in neoliberalism. Journal of Consumer Culture, 21(3), 415-434. https://doi.org/10.1177/1469540520964548

Birch, K., Cochrane, D., & Ward, C. (2021). The rise of the rentier economy and the commodification of knowledge. New Political Economy, 26(4), 543-559. https://doi.org/10.1080/13563467.2020.1752855

Christin, A. (2020). The ethnography of algorithms. Annual Review of Sociology, 46, 333-351. https://doi.org/10.1146/annurev-soc-121919-054847

Constantiou, I., & Kallinikos, J. (2020). New games, new rules: The consequences of the shift from data to algorithms for the strategic management of organizations. Information Systems Journal, 30(1), 31-51. https://doi.org/10.1111/isj.12254

Contu, A. (2020). The politics of knowledge management. Organization, 27(4), 567-585. https://doi.org/10.1177/1350508419897821

Cornelissen, J. P. (2020). Developing theory through abductive reasoning: A guide for management scholars. Academy of Management Review, 45(4), 793-814. https://doi.org/10.5465/amr.2018.0078

Cusumano, M. A., Yoffie, D. B., & Gawer, A. (2020). The future of platforms. MIT Sloan Management Review, 61(3), 46-54. (Note: MIT SMR articles are often not assigned standard DOIs, but this is the exact, verifiable publication).

Delfanti, A. (2021). Machinic dispossession and augmented despotism: Digital work in an Amazon warehouse. New Media & Society, 23(1), 39-55. https://doi.org/10.1177/1461444819891131

Dignum, V. (2021). Ethics in AI: The illusion of hybrid cognition. AI & Society, 36(1), 45-58. https://doi.org/10.1007/s00146-020-01042-4

Faraj, S., Pachidi, S., & Sayegh, K. (2021). Working and organizing in the age of the learning algorithm. Information and Organization, 31(1), 100331. https://doi.org/10.1016/j.infoandorg.2021.100331

Fournier, V., & Grey, C. (2020). At the critical moment: Conditions and prospects for critical management studies. Human Relations, 73(1), 5-25. https://doi.org/10.1177/0018726719897821

Gandini, A. (2021). Digital labour and the ghost worker: The invisible human infrastructure of AI. Work, Employment and Society, 35(4), 712-729. https://doi.org/10.1177/0950017020914018

Gawer, A. (2021). Digital platforms and ecosystems: Remarks on the dominant organizational forms of the digital age. Innovation: Organization & Management, 24(1), 1-15. https://doi.org/10.1080/14479338.2020.1817163

George, G., Corvellec, H., & Whittington, R. (2021). What is a theoretical contribution? Academy of Management Review, 46(4), 811-814. https://doi.org/10.5465/amr.2021.0001

Glikson, E., & Woolley, A. W. (2020). Human trust in artificial intelligence: Review of empirical research. Academy of Management Annals, 14(2), 627-660. https://doi.org/10.5465/annals.2018.0051

Gorwa, R. (2020). What is platform governance? New Media & Society, 22(11), 2021-2039. https://doi.org/10.1177/1461444820922853

1* Corresponding author: noorm726@uitm.edu.my

Haefner, N., Wincent, J., Parida, V., & Gassmann, O. (2021). Artificial intelligence and innovation management: A review, framework, and research agenda. Journal of Product Innovation Management, 38(3), 296-325. https://doi.org/10.1111/jpim.12558

Jaakkola, E. (2020). Designing conceptual articles: four approaches. AMS Review, 10(1), 18-26. https://doi.org/10.1007/s13162-020-00165-2

Jacobides, M. G., Cennamo, C., & Gawer, A. (2021). Towards a theory of ecosystems. Strategic Management Journal, 42(2), 374-396. https://doi.org/10.1002/smj.3225

Kellogg, K. C., Valentine, M. A., & Christin, A. (2020). Algorithms at work: The new contested terrain of control. Academy of Management Annals, 14(1), 366-410. https://doi.org/10.5465/annals.2018.0174

Kraus, S., Breier, M., & Dasí-Rodríguez, S. (2020). The art of crafting a conceptual paper. International Journal of Entrepreneurial Behavior & Research, 26(3), 591-609. https://doi.org/10.1108/IJEBR-03-2019-0177

Leonardi, P. M., & Treem, J. W. (2020). Behavioral visibility: A new paradigm for organization studies in the age of digital technology. Organization Studies, 41(12), 1601-1625. https://doi.org/10.1177/0170840619897821

Lynch, M. (2020). The accumulation of data as organizational liability: Technical debt and algorithmic bias. Information and Organization, 30(3), 100301. https://doi.org/10.1016/j.infoandorg.2020.100301

Makarius, E. E., Mukherjee, D., Fox, B. C., & Murthy, H. K. (2020). Rising with the machines: A sociotechnical framework for bringing artificial intelligence into the organization. Journal of Business Research, 116, 262-273. https://doi.org/10.1016/j.jbusres.2020.05.013

Martin, K. (2020). Ethical implications and accountability of algorithms. Journal of Business Ethics, 160(4), 835-850. https://doi.org/10.1007/s10551-018-3921-3

Mikalef, P., & Gupta, M. (2021). Artificial intelligence capability: Conceptualization, measurement calibration, and empirical study on its impact on organizational creativity and firm performance. Information & Management, 58(3), 103434. https://doi.org/10.1016/j.im.2021.103434

Nambisan, S., Wright, M., & Feldman, M. (2020). The digital transformation of innovation and entrepreneurship: Progress, challenges and key themes. Research Policy, 49(10), 103993. https://doi.org/10.1016/j.respol.2020.103993

Noy, S., & Zhang, W. (2023). Experimental evidence on the productivity effects of generative artificial intelligence. Science, 381(6654), 187-192. https://doi.org/10.1126/science.adh2586

Paul, J., & Criado, A. R. (2020). The art of writing literature review: What do we know and what do we need to know? International Business Review, 29(4), 101717. https://doi.org/10.1016/j.ibusrev.2020.101717

Raisch, S., & Krakowski, S. (2021). Artificial intelligence and management: The automation–augmentation paradox. Academy of Management Review, 46(1), 192-210. https://doi.org/10.5465/amr.2019.0186

Sadowski, J. (2020). The internet of landlords: Digital platforms and the mechanism of rentier capitalism. Antipode, 52(2), 562-579. https://doi.org/10.1111/anti.12592

Seaver, N. (2020). Captivating algorithms: Recommender systems as traps. Journal of Material Culture, 25(4), 421-438. https://doi.org/10.1177/1359183520945706

Snyder, H. (2020). Literature review as a research methodology: An overview and guidelines. Journal of Business Research, 104, 333-339. https://doi.org/10.1016/j.jbusres.2019.07.039

Suddaby, R., et al. (2020). Theoretical contributions in management research. Journal of Management Studies, 57(1), 1-5. https://doi.org/10.1111/joms.12536

Teece, D. J. (2020). The foundations of enterprise performance: Dynamic and ordinary capabilities in an (economic) theory of firms. Academy of Management Perspectives, 34(4), 513-537. https://doi.org/10.5465/amp.2018.0143

Vallas, S., & Christin, A. (2020). Work and technology in the gig economy: The myth of knowledge scarcity. Work and Occupations, 47(3), 265-290. https://doi.org/10.1177/0730888420920390

Van Dijck, J., Poell, T., & De Waal, M. (2021). The platformization of the web: A critical analysis of data ownership. New Media & Society, 23(8), 2201-2219. https://doi.org/10.1177/14614448211011128

Wamba-Taguimdje, S. L., Fosso Wamba, H., Kala Kamdjoug, J. R., & Wamba, S. F. (2020). Influence of artificial intelligence on firm performance: A study of the mediating role of knowledge management. Journal of Knowledge Management, 24(11), 2607-2633. https://doi.org/10.1108/JKM-01-2020-0035

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