More than a tool: How organizationally embedded AI competence enables sustainable competitive advantages in media companies

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Abstract

The media industry is under intense pressure to transform, while artificial intelligence (AI) is increasingly shaping value creation, value capture, and differentiation. Using a theoretical and conceptual approach, this article develops an integrative framework that explains how AI can contribute to competitive performance in media companies. The point of departure is the dynamic capabilities approach with the processes of sensing, seizing, and transforming. Based on a structured review of the literature, three central lines of argument are identified. First, AI unfolds its strategic value not primarily as an isolated technology, but through organizational capabilities that translate AI use into reliable routines and adaptation processes. Second, a distinction must be made between the intensity of AI use and the maturity of AI use. While high intensity can facilitate short-term operational effects, sustainable differentiation typically emerges only at a high level of maturity, meaning broad process integration, standardization, and scaling. Third, AI competence proves to be an organization-wide capability whose organizational embedding in governance, roles, quality routines, and learning routines functions as a central mechanism of impact. Empirical findings from different contexts support the assumption that AI-enabled improvements in sensing, seizing, and transforming are often asymmetrically developed and that transformative potential remains unused without appropriate embedding. The article concludes with implications for research and practice and derives an empirically testable expectation structure according to which competitive performance effects in media companies depend more strongly on the maturity of AI use than on its mere intensity.

Keywords: Artificial Intelligence (AI), Media Management, Dynamic Capabilities Approach, AI Competence, Organizational Embedding, Competitive Performance

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1. Introduction

The media industry is under considerable pressure to transform. Declining margins in traditional revenue models, fragmented attention, and data-driven platform economies intensify competition for reach, advertising budgets, and willingness to pay. In parallel, the use of artificial intelligence (AI) is changing not only individual production or distribution steps but also intervening in fundamental industry logics. In this article, AI is understood as an umbrella term for data- and model-based methods that support or automate cognitive tasks in media value creation processes, which includes both generative and predictive or analytics-based applications. This particularly affects mechanisms of value creation, such as automation and scaling of content and service processes, value capture, such as personalized pricing and offer design and dynamic ad targeting, and differentiation, such as algorithmic personalization, format innovation, and accelerated iteration cycles. In this environment, the use of AI can increasingly be understood as a competitive necessity to avoid disadvantages in efficiency, quality, and speed vis-à-vis AI-adaptive market participants. What remains unclear, however, is how media companies can embed AI strategically such that sustainable competitive advantages emerge. In organizations, AI should not be understood as the introduction of another technical tool. Rather, AI use becomes an organization-wide core competence. In addition to the availability of data and models, it comprises, in particular, capabilities in problem definition, in prompting, which means the formulation and structuring of inputs, and in workflow design, in quality assurance, in ethical and legal risk management, in the capacity to change processes, as well as leadership that establishes learning-oriented experimentation and innovation routines. The focus of media management research thus shifts from pure technology adoption to the question of how AI competence is built, distributed, and translated into operational routines as a dynamic capability.

In the following, key terms are used consistently as follows. AI use refers to the extent to which AI applications are used in value-creating and supporting processes. Intensity of AI use describes the scope or frequency of use across application fields, while the maturity of AI use describes the degree of process integration, standardization, and scaling, for example from piloting to routinized use. AI competence is understood as an organization-wide core competence that, as a dynamic capability, enables the purposeful selection, adaptation, integration, and further development of AI. Organizational embedding refers to the mechanism through which AI competence is translated into and stabilized within roles, responsibilities, governance, and repeatable routines. Against this backdrop, there is a scientific knowledge deficit regarding the extent to which and the mechanisms through which the use of AI applications in media companies generates competitive advantages, and the role played by the organizational embedding of AI as a core competence of employees and the company, rather than as an isolated tool. In particular, it remains open whether AI use primarily delivers short-term efficiency gains or whether only systematic competence building, skills, governance, process integration, and culture, leads to sustainable differentiation and superior performance. This creates the need to investigate theoretically and empirically the relationship

between intensity and maturity of AI use, AI competence as an organizational capability, and competitive performance in the media industry. The use of AI applications can represent a substantial competitive advantage for media companies, particularly when AI is implemented not as an isolated tool but as an organizationally embedded core competence across employees, processes, and governance. In this article, competitive performance denotes the relative performance of media companies in the market, which can be reflected in economic and market-related outcome measures as well as in competition-relevant process and offering effects.

2. Theoretical Background

To position the relationship between AI use and competitive performance theoretically, perspectives from strategic management and organizationoriented approaches can be combined. Competitive advantages arise less from the mere availability of individual technologies than from the firm-specific combination of resources and capabilities and their effective organization in routines and control mechanisms (Gao et al., 2025). In AI contexts, this typically includes technical resources as well as complementary organizational prerequisites, including competences, processes, governance, and culture. Because many basic AI technologies and tools are generally available on the market, the explanation of sustainable advantages shifts to those capabilities that enable the purposeful selection, adaptation, integration, and continuous further development of AI in value creation processes. A central point of connection is the concept of dynamic capabilities. It focuses on how organizations in volatile environments identify opportunities, mobilize resources, and reconfigure existing structures and routines (Teece et al., 1997; Teece, 2007). Applied to AI, this means that media companies must identify and prioritize relevant fields of application, including problem definition and an application portfolio, secure implementation and scaling organizationally, including process and system integration as well as data and quality management, and adapt existing work and decision logics, including roles, responsibilities, steering, and learning and innovation routines. AI competence is thus understood as an organization-wide capability that goes beyond individual tool use and manifests in repeatable, reliable practices. In addition, a sociotechnical perspective suggests understanding AI as a technology whose value contribution is realized only through the fit between technology, organization, and human expertise. Accordingly, it is decisive not only whether AI is used, but how it is embedded in editorial, commercial, and operational processes. This includes, in particular, the design of human–AI division of labor, the definition of quality standards, the safeguarding of legal and ethical requirements, and the establishment of a learning and change capability that enables iterative improvements.

For the media industry, this theoretical framing is particularly relevant because value creation and value capture are strongly shaped by attention, personalization, platform intermediation, and advertising markets. AI can support differentiation through personalized offerings, faster format development, and optimized ad targeting. At the same time, requirements for transparency,

reliability, and governance increase in order to limit risks, such as quality and reputational damage and legal and ethical conflicts. Theoretically, this implies that intensity and maturity of AI use may generate operational effects, but sustainable competitive advantages are more likely when AI competence is built organization-wide as a dynamic capability and, through organizational embedding, is translated into robust routines. This leads to a conceptual expectation relationship in which AI use and AI competence jointly influence competitive performance, with organizational embedding functioning as a central mechanism of impact.

From this framing, this article derives the expectation that not only the intensity of AI use, but especially its maturity and the organization-wide development of AI competence, are relevant for sustainable competitive advantages. The aim is therefore to analyze the relationship between AI use, intensity and maturity, AI competence as an organizational capability, and competitive performance in media companies, and to examine the contribution of organizational embedding as a central mechanism of impact. In doing so, the article contributes to extending technology-centered adoption perspectives by adding a competence- and organization-oriented explanation of competitive effects.

3. Methodology

This article discusses current studies in a theoretical and conceptual approach and combines different theoretical viewpoints in order to analyze the role of AI in the context of dynamic capabilities. The aim is to provide a conceptual foundation for the research question of how AI use, intensity and maturity, AI competence, organizational embedding, and competitive performance are related in media companies. The argument is structured along the three core activities of sensing, seizing, and transforming in order to systematically classify AI-related mechanisms of impact at the level of routines, competences, structures, and governance. The point of departure is the dynamic capabilities approach (Teece et al., 1997; Teece, 2007), which emerges from the resource-based view. It provides the conceptual scaffold of the three core activities sensing, seizing, and transforming (Schoemaker, Heaton, Teece, 2018). Numerous authors adapt these categories for digital contexts, for example as digital dynamic capabilities in the form of digital sensing, digital seizing or capturing, and digital transforming (Rahman et al., 2025). This provides a theoretical rationale for how digital technologies influence a firm's ability to perceive opportunities and respond to them. For the present article, this ordering framework allows AI-related phenomena to be assigned consistently. Sensing concerns, in particular, the support of perception and analysis activities, for example through AI-enabled environmental scanning. Seizing concerns the design and implementation of prioritized courses of action, for example through AI-enabled decision and workflow design. Transforming concerns the reconfiguration of resources and routines, for example through scaling and integrating AI into processes.

Building on the logic developed in Sections 1 and 2, an analytical distinction can be made between AI use—understood as the intensity of use across application fields—and the maturity of AI use, i.e., the degree of integration, standardization, and scaling. In addition, AI competence is conceptualized as an organization-wide capability that enables the purposeful selection, adaptation, integration, and further development of AI, whereas organizational embedding denotes the mechanism through which this capability is translated into, and stabilized within, roles, responsibilities, governance arrangements, and repeatable routines. Some works (Gao et al., 2025) also draw on innovation capability as a concept and view dynamic capabilities as a means to increase innovation and performance. This line of argument also incorporates the knowledge-based view by emphasizing that AI can contribute to increasing innovation capability particularly through improved organizational learning and knowledge management. For the research logic of the article, this supports the assumption that AI-related effects on competitive performance do not result solely from the availability of AI technologies, but are mediated through firm-specific capabilities and their implementation in reliable practices. Another central perspective is the microfoundations theory of dynamic capabilities (Teece, 2007). It asks about the individual and processual foundations on which overarching capabilities are based. In the context of AI, this means which new routines, competences, and structures are required or enabled by AI. More recent studies address this question explicitly. Höhener (2024), for example, identifies eleven microfoundations for the use of generative AI in established companies, each assigned to sensing, seizing, or transforming. They include, among others, empowerment and knowledge use, meaning enabling employees to use AI insights, organizational learning and openness, interdisciplinary collaboration, agile organizational structures, strategic leadership, and an adaptable, informed organizational culture. Theoretically, this supports the assumption that AI does not automatically improve dynamic capabilities, but that certain lower-level capabilities and contextual conditions, such as a learning culture and cross-functional cooperation, are required so that AI potential can be translated into actual innovation capability and sustainable effects on competitive performance.

Closely linked to this is an organizational learning and knowledge management perspective. Siaw and Ali (2025) develop a conceptual model of the interaction between human and artificial intelligence from the perspective of organizational knowledge management. They draw on the dynamic capabilities approach and analyze how AI and human resources substitute for or complement each other to improve knowledge processes that underlie dynamic capabilities. Their model shows that AI can function particularly in sensing as a substitute for human intelligence, for example through automated environmental scanning and internal data analyses. By contrast, seizing, meaning capturing and implementing opportunities, requires more complementarity, meaning that human judgment is complemented by AI analytics in order to match internal competences to external opportunities. For transforming, meaning reconfiguring resources, they see advantages when AI complements human capabilities, for example by supporting the conversion of tacit knowledge into explicit knowledge, knowledge conversion, which facilitates

process redesign. This perspective also emphasizes that ethical and organizational factors influence the effectiveness of this interplay. Clear responsibilities and rules must exist regarding who bears decisions when AI applications are used. Theoretically, this links the dynamic capabilities approach with sociotechnical systems theory and questions of ethics.

In addition, individual studies draw on established theories of strategic adaptation. Karimi and Walter (2015), for example, combine the dynamic capabilities approach with disruptive innovation theory according to Christensen et al., (2018). The point of departure is the assumption that digital disruption destabilizes established business models and that firms can respond adequately only through dynamic capabilities. The authors integrate Christensen's resources-processes-values framework, RPV framework, into the operationalization of first-order dynamic capabilities. Similarly, in other studies (Oliver, 2014; Küng, 2017), media management-specific theories such as media economics or institutional theory are linked with the dynamic capabilities approach to take regulatory influences or industry structures into account systematically.

The selection of the discussed perspectives follows the aim of bundling complementary explanatory contributions, first, how AI can influence opportunity perception and decision capability, sensing and seizing, second, which organizational prerequisites and microfoundations are required for this, AI competence and organizational embedding, and third, through which reconfiguration processes AI use can be translated into sustainable changes in routines and structures, transforming. Overall, the discussed perspectives share the view that AI technologies can act as a catalyst for dynamic capabilities. They increase the potential tension for innovation, but must be framed by appropriate management practices, culture, and strategy in order to become effective. AI is thus understood less as a purely technical factor and more as part of an organizational capability system, consistent with the premise that competitive advantages arise from the combined effect of technology and organizational capabilities.

The conceptual synthesis thus yields the expectation that AI use, intensity and maturity, contributes to competitive performance not in isolation but in interaction with AI competence and organizational embedding. In this article, the dynamic capabilities approach serves as an ordering framework to structure these relationships consistently along sensing, seizing, and transforming and as a basis for a theoretical and conceptual classification.

4. Results and Discussion

4.1 Foundations and Central Research Streams

The following results synthesize key findings from the discussed literature and classify them along the reference framework introduced in Sections 1 and 2 – AI use (intensity and maturity), AI competence, organizational embedding, and competitive performance – as well as along the process logic of the dynamic capabilities approach (sensing, seizing, and transforming). The dynamic capabilities approach (Teece et al., 1997) forms the conceptual framework for numerous

studies in media and digitalization research. Dynamic capabilities denote an organization's ability to recombine and adapt resources purposefully in rapidly changing environments. Teece (2007) specified this in three core processes, sensing, seizing, and transforming, meaning recognizing opportunities, capturing them, and maintaining organizational adaptability through reorganization. In the media industry, this approach was used early on to explain transformation processes in traditional submarkets. A study on the film industry (Lampel & Shamsie 2003) shows that, in Hollywood's transition from the studio system to flexible networks, two capabilities were central, mobilizing, meaning mobilizing resources and comparable to sensing and seizing, and transforming, meaning reconfiguring existing resources. In the network-based post-studio era, routines of mobilizing gained significantly in importance for success, while the relative importance of pure transforming routines declined. This finding marks a first research stream on industry transformation and dynamic capabilities that examines how media companies respond to digital disruption. In the logic of this article, this can be understood as an indication that sustainable effects may result less from isolated technology use than from the reconfiguration of organizational routines and structures, transforming.

A second research stream focuses on digital transformation and dynamic capabilities in a broader sense. Here, the effects of new technologies on firms' ability to change are analyzed, often without a specific industry focus. Empirical work shows that dynamic capabilities are central to success in digital upheavals. Karimi and Walter (2015) found in the newspaper industry that companies with pronounced dynamic capabilities built digital platform competences more effectively and thereby responded more successfully to disruption by the internet. Such first-order dynamic capabilities, understood as adaptations of resources, processes, and values, improved the development of new digital business models and thus performance during upheaval. A similar pattern is shown by a study in the SME domain (Rahman et al., 2025), which finds that digital sensing, digital seizing or capturing, and digital transforming capabilities advance digital transformation. All three dimensions, from identifying digital opportunities through capturing them to implementation or reconfiguration, contributed significantly to digital change and subsequently to better performance. The findings therefore suggest that digital technologies unfold their performance effects primarily through dynamic capabilities and are thus coupled to organizational embedding, routines, processes, and structures.

The most recent research stream addresses explicitly the interplay between AI technologies and dynamic capabilities. This literature, predominantly emerging since 2021, examines AI as an enabler of dynamic capabilities in different contexts and includes both conceptual frameworks and initial empirical studies. A review in the marketing context (Chen et al., 2025) shows that numerous studies on AI-driven dynamic capabilities already exist. It identifies typical antecedents, such as data infrastructure and management competence, an expansion of the conceptual meaning of dynamic capabilities through AI, and outcomes, such as innovation success. At the same time, the review emphasizes that microfoundations and long-term development paths of these AI-driven

capabilities are still insufficiently understood. The authors propose an integrative framework model that links organizational adaptation, dynamic capabilities, strategy, and AI transformation. For the research logic of this article, it can be derived that AI competence and its organizational embedding should be addressed as central explanatory elements when AI use is to be translated into sustainable performance effects.

At the empirical level, early studies investigate specific industries and applications of AI. In the media and tech sectors, the focus is often on new business fields such as XR and the metaverse or digital marketing. Zabel et al., (2023) analyzed virtual reality startups in a digital ecosystem, the metaverse, and identified specific challenges for complementor firms. In particular, dynamic sensing capabilities proved critical for recognizing opportunities in a vague and rapidly growing metaverse environment. In addition, social screening processes and knowledge formation routines, such as technical experimentation and co-creation with customers and partners, play a central role in uncovering tacit knowledge and understanding opportunities. It also emerged that a strongly market-oriented screening of opportunities is closely linked to seizing. Companies that scan opportunities with a commercial focus move more quickly into prototypical implementation and business model development. These findings can be classified within the article's reference framework because they emphasize AI competence, such as knowledge-based routines, and organizational embedding, such as repeatable screening and learning routines, as prerequisites for AI use to exert effects through sensing and seizing.

A specific segment of the media industry is examined by Zabel and Duckwitz (2025) in their study of German influencer marketing agencies. These agencies operate at the intersection of media and advertising and are increasingly implementing AI, for example for content creation or analytics. The qualitative study shows that AI is so far used primarily to optimize operational processes and increase efficiency (Zabel & O'Brien 2024). Dynamic seizing capabilities manifest in this context through a decentralized, agile approach to decision-making and implementation. Many agencies test AI applications experimentally in a trial-and-error mode, with impulses both top-down from management and bottom-up from employees. A flexible organizational culture supports this adaptability. At the same time, the authors find that, despite its innovative potential, AI has so far scarcely been used for fundamental business model innovations. The focus lies rather on incremental improvements in operations (Zabel & O'Brien 2024). Important levers of transformation such as strategic partnerships remained underutilized, partly due to concerns regarding data protection and security, which are perceived as barriers.

Overall, the research streams on media, digitalization, and AI show that AI technologies unfold their value in media companies primarily through strengthening and changing dynamic capabilities. In the logic of this article, this points to the need to consider AI use, intensity and maturity, together with AI competence and its organizational embedding in order to explain effects on competitive performance consistently.

4.2 Specific Findings for the Media Sector

Empirical studies support the theoretical assumptions outlined above through findings from different contexts. The general tenor is that AI use can have a positive effect on innovation capability and performance when it is accompanied by appropriate dynamic capabilities. With respect to the research logic, it is analytically important to distinguish whether studies primarily address the intensity of AI use, the extent of use, or rather the maturity, integration, standardization, and scaling, and what role AI competence and organizational embedding play as mechanisms of impact. Gao et al., (2025) quantify this based on data from Chinese companies. Organizations that actively use AI exhibit significantly higher innovation capability. This effect is mediated through digital adaptation capability and market sensing. AI use alone therefore does not automatically lead to innovation. What is decisive is rather a firm's ability to adapt digitally, for example by integrating new technologies into workflows and further training employees, and to perceive market changes. The described chain effect, "AI use → digital adaptability → market perspective → innovation success," confirms the view of AI as a capability enabler. AI unfolds its value through learning and adaptation processes that it can trigger within organizations. In the terminology of this article, the "active use" can primarily be read as an indicator of the intensity of AI use. The mediating factors at the same time point to organization-wide embedded capabilities that connect to AI competence and organizational embedding.

A similar pattern is reported by the study of Rahman et al., (2025). There, SMEs were surveyed regarding the extent of their digital dynamic capabilities. All three dimensions, digital sensing, digital capturing, seizing, and digital transforming, were positively correlated with the success of digital transformation. The seizing component, referred to in the article as digital capturing capability, had a particularly strong effect on transformation progress. This implies that the capability to actually implement identified digital opportunities, for example through investments in new digital products or services, is especially relevant for outcomes. At the same time, high transformation costs partially weakened the effect, which suggests that even pronounced dynamic capabilities can lose effectiveness when resource barriers exist. Overall, these quantitative findings underscore that AI-driven change can pay off in performance if firms can respond agilely and continue to develop adaptively. In the logic of this article, this can be interpreted as an indication that not only intensity, but especially maturity, implementation, integration, and scaling, is relevant for sustainable effects.

For the media sector, the available evidence so far consists largely of qualitative studies and case studies that provide deeper insights into concrete manifestations of dynamic capabilities. Karimi and Walter (2015) showed in their quantitative analysis of the newspaper industry that publishing houses with higher dynamic capabilities were more successful in building new digital offerings, such as online portals. In addition, case studies illustrate how these capabilities manifest in different structural forms. Lampel and Shamsie (2003) demonstrated based on data from the film

industry that studio-based companies relied more heavily on transforming capabilities, efficiency in internal processes, while new network-based studios invested in mobilizing capabilities, meaning quickly assembling changing teams and resources per project. In the post-studio era, this resulted in more flexible innovation projects, which translated into better market success. The study thus shows empirically how organizational shifts, here from hierarchy to network, can change the relative importance of individual dynamic capabilities. This is an indication for media companies today that AI may require comparable structural adjustments, for example stronger project orientation and greater openness to external cooperation. These adjustments can also be understood as forms of organizational embedding through which capabilities, and thus AI competence, are translated into structures and routines.

Current empirical insights into AI in media organizations stem predominantly from exploratory work. Zabel and Duckwitz (2025) report several central findings for influencer marketing agencies. First, all examined agencies use AI primarily for process optimization, for example to automate routine tasks, such as initial drafts for posts generated by AI, or to improve data targeting in campaigns. These efficiency gains were realized in the short term without changing the business model. Second, successful agencies display a pronounced agile culture. Decisions on AI implementation are often decentralized. Employees experiment independently with AI applications, sandboxing, and share insights internally, an indicator of lived microfoundations such as empowerment, learning orientation, and tolerance for failure. Third, however, transformative steps, such as new services or business models enabled by AI, have so far hardly been implemented. Partnerships with AI specialists or customers to develop new value propositions are rarely pursued. Respondents cite reasons including uncertainty about regulation and data protection, limited resources, and a focus on day-to-day business. This finding points to a potential weakness. Although AI is available, its strategic value remains limited if firms do not develop the capability, or the willingness, to pursue new paths, for example toward AI-enabled business model innovation. Put differently, without a transforming capability that goes beyond pure efficiency improvement, AI potential in media companies is not fully exploited. The described practices, decentralized decisions, sandboxing, and internal exchange, can also be interpreted as elements of organizational embedding insofar as they translate AI use into repeatable learning and coordination routines as well as responsibility structures.

Findings from other industries support this observation and also point to possible risks. Siaw and Ali (2025), for example, argue that fully AI-enabled environmental observation can also carry disadvantages. AI can scan very large volumes of data, but may underperform in recognizing weak signals or qualitative changes that human decision-makers would perceive intuitively. It follows that firms must learn when AI applications are appropriate and when human judgment remains indispensable for recognizing opportunities, a balance that can be understood as part of the dynamic capability sensing. Conversely, positive examples, such as large streaming platforms or news services, suggest that AI-enabled analytics in combination with human creativity can enable

innovations, such as personalized content and automated yet curated newsfeeds (Sghir et al., 2023; Kumar & Garg 2018; Liu et al., 2024; Arshad et al., 2025).

Across studies, recurring patterns emerge along sensing, seizing, and transforming. AI supports sensing particularly through data-driven environmental and user analysis. Seizing depends strongly on the capability to translate identified opportunities into concrete implementation and product or service decisions. Transforming often lags behind short-term efficiency gains and requires structural adjustments as well as governance. In summary, the empirical findings suggest that AI increases the performance of media companies particularly when it is embedded within a dynamic capabilities framework and is translated into stable routines through AI competence and organizational embedding. At the same time, the findings indicate that these dimensions are often asymmetrically developed. Many media companies quickly realize short-term operational gains through AI, while maturity development, integration and scaling, as well as strategic redesign and business model innovation often lag behind. This imbalance constitutes a central topic for further research and for the empirical examination of the research question.

4.3 Future Research Perspectives

The literature review makes clear that, despite increasing attention to AI in the context of dynamic capabilities, substantial research gaps and open questions remain. These gaps concern in particular the operationalization and empirical testing of the constructs introduced in Sections 1 and 2 – AI use (intensity and maturity), AI competence, organizational embedding, and competitive performance – in the media context.First, there is a lack of industry- and context-specific studies, especially in the media sector. Empirical evidence often comes from general or adjacent fields, for example IT, marketing, and VR tech, while targeted investigations in traditional media companies, newspapers, TV broadcasters, the music industry, and similar, are rare. This leaves a gap in systematically capturing how AI influences the microfoundations and capabilities of, for example, newsrooms, publishing houses, or entertainment conglomerates. Relevant cases may already exist in practice, but academic processing is still largely pending. Accordingly, the literature points to the need to consider industry-specific dynamics more strongly.

Second, reviews emphasize that the microfoundations of AI-driven dynamic capabilities are still insufficiently understood. While conceptual catalogs exist, such as the eleven factors noted above, empirical validation of these micro-routines is lacking. It remains unclear, for example, which concrete routines are actually established in media companies through AI, such as daily data analytics meetings as part of sensing, cross-functional AI innovation teams as part of seizing, or continuous upskilling programs as part of transforming. This gap also includes the question of measurability. How can AI-augmented dynamic capabilities be operationalized and measured reliably? Future studies could develop scales for this purpose or pursue qualitative benchmarking approaches. In the terminology of this article, this points directly to the need to make AI competence and organizational embedding empirically tangible as mechanisms.

Third, the long-term effect of AI on dynamic capabilities, in the sense of an evolutionary development path, is still unclear. Most studies capture snapshots or short time periods. Longitudinal studies and historical comparisons are almost entirely absent. It therefore remains open whether AI use initially triggers incremental improvements and only later leads to substantial transformations, or whether, without targeted intervention, a plateau of effectiveness is reached. Chen et al., (2025) also point out that evolutionary paths, meaning the development of AI-driven capabilities and their adaptation to new generations of AI, still require systematic research. Here, there is a need for additional theory building, for example phase models, and empirical testing. For the research logic of this article, this concerns in particular the maturity of AI use and its development over time.

Another research need concerns the balance between humans and AI in the development of dynamic capabilities. Conceptual works, such as Siaw and Ali (2025), provide initial indications of which tasks are more delegable to AI and where human intelligence remains indispensable. Empirical studies are largely missing, however, that show, for example, whether AI-based sensing in certain areas, such as market trend analysis, is actually more effective than human sensing or how employees in media companies concretely use AI insights. In this connection, the prospective role of augmented intelligence is also relevant, meaning collaborative systems in which humans and AI make decisions jointly. So far, there is hardly any research on how such ways of working affect firms' capability to seize opportunities and reorganize themselves.

There are cultural and competency-related gaps gaps associated with this. Many studies point to the importance of culture, leadership, and trust, but often leave open how a culture is built that actually promotes AI innovation. It is also insufficiently clarified which leadership styles support sensing of new technologies and how learning and experimentation practices can be embedded sustainably in organizations. In the terminology of this article, this concerns the design of AI competence and its organizational embedding.

While it is often assumed that dynamic capabilities strengthened through AI lead to better firm performance, for example innovation level, market shares, and growth, indications suggest that this relationship does not hold automatically. An excessive technology orientation can encourage misguided investments or overwhelm employees. In addition, negative findings, such as failed AI introductions despite high dynamic capability due to external factors, are rarely reported. A publication bias toward success stories is therefore plausible. Future research should therefore also analyze boundaries and conditions under which AI does not strengthen dynamic capabilities or even inhibits them. This includes, for example, ethical conflicts, AI use versus editorial ethics, regulatory hurdles, or organizational misaligned incentives, for example when AI projects reduce short-term profit and are therefore discontinued despite long-term benefits.

Overall, the identified gaps point to the need for more context-specific, detailed, and long-term research in order to understand robustly and to test empirically the interplay of AI use, intensity and maturity, AI competence, organizational embedding, and competitive performance.

4.4 Discussion

Based on the argument developed in Sections 1–3, this article provides a conceptual synthesis of the relationship between AI use (usage intensity and maturity), AI competence, organizational embedding, and competitive performance within the ordering framework of the dynamic capabilities approach. The literature consistently reports that AI-based technologies can extend dynamic capabilities in companies and amplify their effects (Chen et al., 2025). In the present synthesis, AI is understood less as an additional resource and more as a multiplier of existing and newly emerging capabilities. The references support this classification without replacing it (Chen et al., 2025). For media companies, this can be visible particularly in sensing when AI systems analyze large volumes of data and identify patterns that would otherwise remain hidden from human decision-makers (Siaw & Ali, 2025; Zabel et al., 2023). It is decisive, however, that enhanced sensing alone does not establish sustainable competitive advantages if seizing and transforming processes are not aligned accordingly (Rahman et al., 2025; Karimi & Walter, 2015). In the logic of this article, a central finding thus crystallizes. It is not the availability of individual AI applications that is decisive, but the organizational embedding of AI competence as a dynamic capability that translates AI use systematically into operational routines and strategic adaptation (Gao et al., 2025; Chen et al., 2025).

The empirical findings referenced in this article support the premise that competitive advantage does not stem from AI technology per se, but rather from an organization's capability to deploy AI strategically and purposefully. This includes the ability to identify relevant areas of application and to leverage AI in the continuous development of products, services, and business models (Karimi & Walter, 2015; Zabel & Duckwitz, 2025). In the present conclusion, AI thus functions as a catalyst that amplifies existing strengths and at the same time can make organizational weaknesses visible. The literature provides plausible points of connection for this (Gao et al., 2025; Zabel & Duckwitz, 2025). Media companies with an agile culture, willingness to learn, and suitable leadership and decision-making processes can accordingly increase innovation speed and adaptability, while an AI use narrowed to pure automation often remains limited to short-term efficiency gains (Zabel & Duckwitz, 2025; Zabel & O'Brien, 2024). This pattern is interpreted in this article's argument as the difference between usage intensity and maturity of AI use. High intensity can generate operational gains, whereas sustainable differentiation typically becomes plausible only when AI competence, governance, and process integration are developed organization-wide (Gao et al., 2025; Rahman et al., 2025). The research state remains dynamic, but in its overall view supports the conceptual expectation of this article that AI unfolds its strategic

value above all through dynamic capabilities as a mediating mechanism (Chen et al., 2025; Gao et al., 2025).

At the same time, the literature as a reference suggests that the boundaries between components of the dynamic capabilities approach can become more permeable through AI. Sensing and seizing appear more tightly intertwined when analytical systems not only identify opportunities but also derive courses of action (Siaw & Ali, 2025; Zabel et al., 2023). Beyond this, the focus of transforming shifts. Reconfiguration increasingly encompasses the redesign of data infrastructure, the further qualification of the workforce, and the implementation of digital ethics and governance (Chen et al., 2025; Gao et al., 2025). In the media context, this gains weight because transforming often also includes quality and reputation safeguarding, accountability rules, and legal and ethical risk steering. Implementation barriers become visible, among other things, in data protection and security concerns (Zabel & Duckwitz, 2025; Zabel & O'Brien, 2024). In the present synthesis, it thus becomes plausible that AI in media companies not only accelerates processes but simultaneously affects value creation, value capture, and differentiation and therefore places higher demands on capability-based embedding (Chen et al., 2025).

From the conceptual integration of this article, the central take-away can be condensed into four statements:

1. Usage intensity of AI use primarily explains short-term operational effects, whereas sustainable effects are more likely coupled to maturity, integration, standardization, and scaling.
2. Maturity does not emerge exclusively technically, but requires AI competence as an organization-wide capability.
3. Organizational embedding operationalizes AI competence in governance, roles, quality and approval processes, and repeatable learning and decision routines.
4. Competitive performance is therefore most plausibly understood as the result of this capability system, not as a direct function of isolated AI availability.

For the research logic, the article thus specifies an impact assumption that can be made empirically testable. Organizational embedding and AI competence act as mechanisms through which AI use, usage intensity and maturity, is translated into effects on competitive performance. Conceptually, this is compatible with a mediating relationship without already anticipating an empirical causal claim.

4.5 Future Research Directions

Building on the present synthesis, and supported by the cited references, several research directions can be derived. First, research should proceed in a more industry-focused manner. For the media industry, systematic surveys are still lacking, while the available evidence often stems from adjacent contexts. Second, methodological diversity and longitudinal perspectives are required. In

addition to case studies, broader surveys in media companies seem useful to measure AI use, usage intensity and maturity, AI competence, and organizational embedding reliably and to link them to competitive performance. Third, research should place the human more strongly at the center, particularly the design of human–AI division of labor and the conditions under which human judgment remains indispensable in sensing. Fourth, comparative studies are promising, for example between media segments or countries with different regulation, to identify contingency conditions for capability building. Fifth, outcomes should be modeled systematically as contingent, and limits as well as non-success should also be examined in order to reduce biases in favor of success stories. Finally, a more interdisciplinary approach appears promising, for example through the development of maturity models for AI use in the media context.

4.6 Practical Implications

From the article's argument follows a two-track logic of action. First, AI use should be enabled, for example through piloting suitable AI applications. Second, the development of maturity should be supported systematically through AI competence and organizational embedding. In practice, this means building technological expertise and at the same time cultivating organizational adaptability, not abstractly, but through designable microfoundations such as recurring learning and experimentation routines, clear quality and approval processes, role and responsibility rules, and binding guardrails for ethical and legal risks. This outlines an implementation perspective in which AI is understood not as an isolated tool but as part of an organization-wide capability system that, in the sense of the dynamic capabilities approach, strengthens sensing, seizing, and transforming on a lasting basis.

5. Conclusion

In conclusion, the synthesis yields the expectation that sustainable effects on competitive performance in media companies depend less on pure usage intensity and more strongly on the maturity of AI use, which in turn is enabled through AI competence and its organizational embedding.

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