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In What Ways Does Artificial Intelligence Support Managers to Pursue Business Model Innovation?

Anjar Priyono [1*]
[1] Department of Management, Universitas Islam Indonesia, Yogyakarta, Indonesia
*Corresponding Author: anjar.priyono@uii.ac.id

ABSTRACT

Artificial Intelligence (AI) has significantly influenced various aspects of business processes, including its role in fostering innovation. However, how AI supports managers in innovating business models and the specific impacts of AI adoption on each element of the business model remain underexplored. This study addresses this gap by focusing on how AI enables business model innovation and affects individual components of the business model. Using a qualitative single-case study approach, the research generates granular data to examine the interactions between AI and each element of the business model. This fine-grained analysis provides detailed insights into which elements derive the greatest benefits from AI and which offer the most promising opportunities for innovation. For managers, the findings highlight which business model components are likely to yield the highest returns from AI investment. Given that AI is an inherently innovative technology, its implementation must be continuously updated to remain effective. For policymakers, the study offers implications for designing supportive frameworks to encourage AI adoption by businesses—such as subsidies for AI acquisition or tax incentives for small and medium enterprises (SMEs) that integrate AI into their operations.

Keywords: Artificial intelligence, business model innovation, technology adoption, technology acceptance, digital technologies.

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INTRODUCTION

Artificial Intelligence (AI) can act as a catalyst for Business Model Innovation (BMI). In other words, the presence of AI can accelerate the pace at which BMI is implemented (Reim et al., 2020) (Lee et al., 2019).. AI has reconfigured competitive dynamics, as the disruptive innovations it generates are reshaping global industry competition (Reim et al., 2020). Many established firms struggle to adapt to rapid technological changes. Empirical evidence indicates that 60% of leaders believe their organizations lack the necessary processes to effectively respond to disruption, especially those that have enjoyed long-term success (Lee et al., 2019).

Meanwhile, the business model serves as a critical mechanism linking technology to organizational performance (Csaszar et al., 2024). AI has demonstrated its potential to enhance performance by improving various aspects of business operations. Furthermore, value creation within business models is closely tied to AI's problem-solving capabilities (Mathew et al., 2023). Nonetheless, not all firms are able to derive benefits from AI adoption. Many report that their AI investments have not

translated into business gains due to a range of barriers (Kanbach et al., 2024; Lee et al., 2019). This underscores the importance of strategic alignment and a well-structured business model for successful AI implementation (Reim et al., 2020).

Most existing studies focus predominantly on the technological aspects of AI when analyzing its integration into business models. These studies tend to treat BMI as a secondary outcome rather than a primary goal. Such findings indicate the need for a paradigm shift, recognizing that BMI is equally as critical as the underlying technology (Jorzik et al., 2023). Previous research has examined the impact of AI on individual business model elements. However, the interplay among these elements post-AI implementation, as well as the role of managers in this process, remains underexplored (Katsamakas & Pavlov, 2022). While some studies have identified the competencies required for managers to integrate AI into business models (Jorzik et al., 2023), the specific actions managers must take, their interventions, and the strategic positioning of AI within the BMI process have yet to be thoroughly analyzed.

Addressing these research gaps, this study aims to examine the role of AI in business model innovation by investigating how AI modifies granular components of the business model and the corresponding managerial roles. Therefore, this research seeks to explore the depth and breadth of AI's contribution to BMI. Accordingly, the central research question guiding this study is: In what ways does AI support managers in pursuing business model innovation? Specifically, this study investigates the impact of AI on each element of the business model.

LITERATURE REVIEW

Technological Challenges of Integrating AI into BMI

There are several challenges that organizations face when integrating AI into their BMI. One of the most significant technological hurdles is the need for high-quality data. AI algorithms require large volumes of qualitative and accurate data to function effectively. If organizations rely on inadequate or low-quality data, the resulting output may be inaccurate—a phenomenon commonly referred to as "garbage in, garbage out" (Reim et al., 2020). Moreover, implementing AI often necessitates integration with pre-existing systems and processes. This integration process can be highly complex and may disrupt ongoing operations if not managed properly. Many organizations struggle to align AI capabilities with their existing technological infrastructure (Reim et al., 2020).

Another technological issue concerns the diversity and complexity levels of AI technologies. AI encompasses various technologies, such as machine learning, deep learning, and neural networks, each with different degrees of complexity. This complexity presents additional challenges, particularly as users vary widely in their levels of technological literacy. Furthermore, the causal relationship between AI implementation and performance outcomes remains unclear or operates as a "black box." This lack of transparency raises questions about the actual effectiveness of AI in supporting BMI (Reim et al., 2020).

AI Integration Strategies for BMI

When companies plan to implement AI in their business models, managers typically follow a series of stages that form an iterative loop. This means that the integration process is not linear but cyclical and ongoing. Before implementing AI, it is essential to understand existing business model practices, particularly the core building blocks of the current business model. The next step is to align the AI strategy with the company's vision. For instance, if a company aims to be known for exceptional customer service, its AI strategy should focus on enhancing customer interactions (Jorzik et al., 2024).

Integrating AI into the business model requires comprehensive and strategic planning to avoid disrupting existing systems. An initial critical step involves a thorough evaluation of current systems

and processes to identify potential integration points. Through this comprehensive planning, organizations can determine how AI can complement existing business processes, thereby minimizing the risk of disruption. This structured and deliberate approach forms a crucial foundation for effective AI implementation (Reim et al., 2020).

Previous studies have successfully identified a roadmap that systematically outlines how to implement AI into BMI. This roadmap includes four main stages: understanding AI and the organization's capabilities, assessing the current business model and its innovation potential, developing the necessary capabilities for AI implementation, and fostering organizational acceptance and internal competencies (Reim et al., 2020).

This study emphasizes that integrating AI into BMI requires recruiting individuals with an entrepreneurial mindset who can identify problems and propose innovative solutions. Consequently, firms must adapt their recruitment strategies to attract talent swiftly, especially in competitive labor markets. Traditional hiring processes may be insufficient in responding to rapid changes (Lee et al., 2019).

AI-Affected Dimensions of the Business Model

A previous systematic literature review highlights that research on this topic continues to evolve, reflecting both static and dynamic effects of AI on BMI. The distinction between static and dynamic influences indicates that AI can impact BMI at various levels over time (Jorzik et al., 2024). When companies use AI to drive BMI, they engage in a series of iterative activities. This means that BMI is not a one-time, linear process, but rather a cyclical one involving incremental changes (Katsamakas & Pavlov, 2022).

Most studies integrating AI into BMI tend to focus on single-industry contexts and lack cross-sectoral perspectives. However, there is significant industrial diversity—ranging from manufacturing and healthcare to platform businesses, fashion, marketing, and media. This diversity suggests that AI-driven BMI has become highly prevalent, with applications across various industries that demand specific approaches. Extracting knowledge about AI-driven BMI practices from multiple industries can yield broader generalizability (Jorzik et al., 2024).

Numerous business model frameworks exist in the literature, with the Business Model Canvas (BMC) being the most widely adopted (Osterwalder, A., & Pigneur, 2010). The BMC comprises nine elements, which can be broadly categorized into three primary components: value creation, value delivery, and value capture (Teece & Linden, 2017). The business model concept is closely associated with the lean approach due to its potential to build efficient and rapidly scalable businesses (Rosário Cabrita et al., 2016).

Table 1. Examples of AI-driven BMI areas

BMC element	Type of innovation enabled by AI	Real-world examples
Customer segments	Automated data- and behavior-based segmentation	Netflix → personalized recommendations
Value propositions	AI-based products/services, personalized offerings	Google Maps, AI healthcare solutions
Channels	Automated, real-time digital channels	E-commerce with AI delivery systems
Customer relationships	Chatbots, 24/7 service, automated recommendations	AI Chatbots (e.g., ChatGPT)

BMC element	Type of innovation enabled by AI	Real-world examples
Revenue streams	Data-driven revenue, dynamic pricing models	Uber → surge pricing
Key resources	AI models, data, computing infrastructure	AI engines, ML models, data lakes
Key activities	Automation, trend prediction, decision-making	Predictive maintenance, RPA
Key partnerships	Tech collaborations & external AI integrations	AWS AI service partners
Cost structure	Operational and production cost efficiency through AI	AI in manufacturing

Source: Katsamakas & Pavlov, 2022

From the nine elements of the Business Model Canvas, this study analyzes how AI supports companies in driving innovation. More specifically, it examines how AI influences each element of the Business Model Canvas within the context of a publishing company.

METHOD: CASE STUDY

Single Case Design

The use of a single case study design enables researchers to conduct a detailed and in-depth analysis, particularly when the case under investigation is unique and difficult to replicate (Siggelkow, 2007). The application of AI into business models remains a relatively novel topic, with limited implementation among companies and a scarcity of prior research from which to draw comprehensive insights (Edmondson & McManus, 2007). Such integration requires managers with specific competencies, AI cultural integration, and an AI-oriented mindset (Jorzik et al., 2023). Therefore, a single case study design is deemed appropriate for this topic.

Data Collection

As a study employing a case study methodology, data collection was conducted using a variety of techniques and approaches to ensure comprehensive data gathering (Eisenhardt, 1989). Data sources included organizational archives, interviews, questionnaires, and observations, enabling the researcher to perform triangulation (Jick, 1979). The process of data collection and analysis was iterative rather than linear, allowing for flexibility between field research and desk research (Edmondson & McManus, 2007). Data collection continued until data saturation was achieved—when no new insights emerged despite continued data collection (Dyer & Wilkins, 1991).

Data Analysis

During the analysis phase, the researcher identified key patterns as the basis for theory development. Although there is no standardized or universally accepted technique, the researcher employed two primary strategies. First, the analysis was conducted systematically and comprehensively to ensure that the conclusions drawn accurately represented the entire data set; this was done to avoid "death by data asphyxiation" (Pettigrew, 1990) Second, the researcher remained open to adapting the analysis as new themes emerged, allowing for a more holistic representation of the data (Eisenhardt & Graebner, 2007).

Data analysis was carried out in three stages: free coding, axial coding, and selective coding (Bamford, 2008). In the free coding stage, also referred to as open coding, the researcher coded the data in as much detail as possible, breaking it down into concepts and categories. The goal was to conduct a thorough exploration in order to capture a wide range of categories (Strauss, 1987). At this stage, no specific patterns were expected to emerge yet (Strauss, 1990). In the second stage, axial coding, the researcher identified relationships between categories and sub-categories, thereby organizing the data and laying the groundwork for a conceptual framework. This stage required continuous refinement of the framework, as new categories could potentially emerge (Strauss, 1987). In the final stage, selective coding, the researcher integrated and distilled the categories identified in the previous stages into a coherent narrative. The analysis was centered around core categories to ensure that the findings remained aligned with the main theme of the research (Taylor, 2023).

The Case Company: Deepublish

Company History and Profile

Founded in 2010 in Yogyakarta, Deepublish is an academic publishing company based in Yogyakarta, Indonesia. The company has experienced significant growth, employing over 400 staff members by 2025 to support the production of scientific publications. Unlike conventional publishing firms, Deepublish focuses on fast, independent publishing while maintaining quality standards. Its flagship products include school and university textbooks, reference books, conference proceedings, and e-books.

In addition to its publishing activities, Deepublish actively builds and nurtures communities, which has contributed to the company's business development. These initiatives include textbook writing training for university lecturers, scientific publication workshops, training for marketing partners, and organizational profile development workshops. The organizational structure of Deepublish is presented in Figure 1.

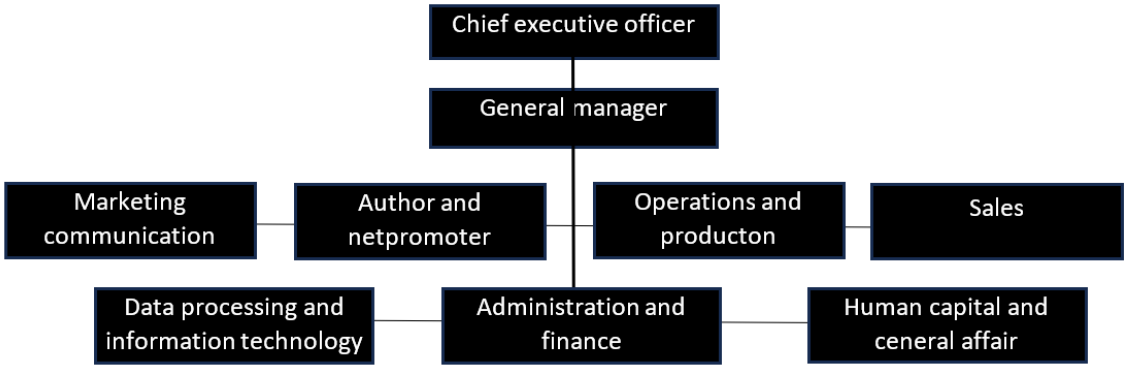

Figure 1. Organization Structure

Marketing and Product Distribution

Deepublish employs multiple distribution channels to market its products, including a dedicated book e-commerce website – i.e., www.deepublishstore.com – and search engine optimization (SEO) strategies to increase visibility for both products and authors. The company also partners with major online marketplaces such as Tokopedia, Shopee, and Bukalapak, and distributes e-books across various digital reading platforms. Organizationally, marketing and distribution activities are supported by two departments: the marketing communication department, which consists of 15 full-time employees and 4 freelancers, and the sales department, which is supported by 15 employees.

Partnership and Networks

To achieve its sales targets, Deepublish collaborates with various partners. Some of these partners voluntarily join the company's partnership network. Longstanding partnerships are primarily embedded within the sales department and the author and net promoter department. Sales department partners are all involved in the distribution of Deepublish's printed books, categorized into several partnership levels. Partners in the author and net promoter department assist Deepublish in acquiring publish-ready manuscripts from authors. Meanwhile, indirect or operational support partners are affiliated with the operations and production departments.

ANALYSIS AND FINDINGS

This section discusses the impact of AI on each element of the business model using grounded theory (Bamford, 2008), which generates three levels of data: first-order, second-order, and aggregate dimensions. The first-order codes are presented in the text in italics in the following section, and a summary of all three levels of data is presented in Figure 2.

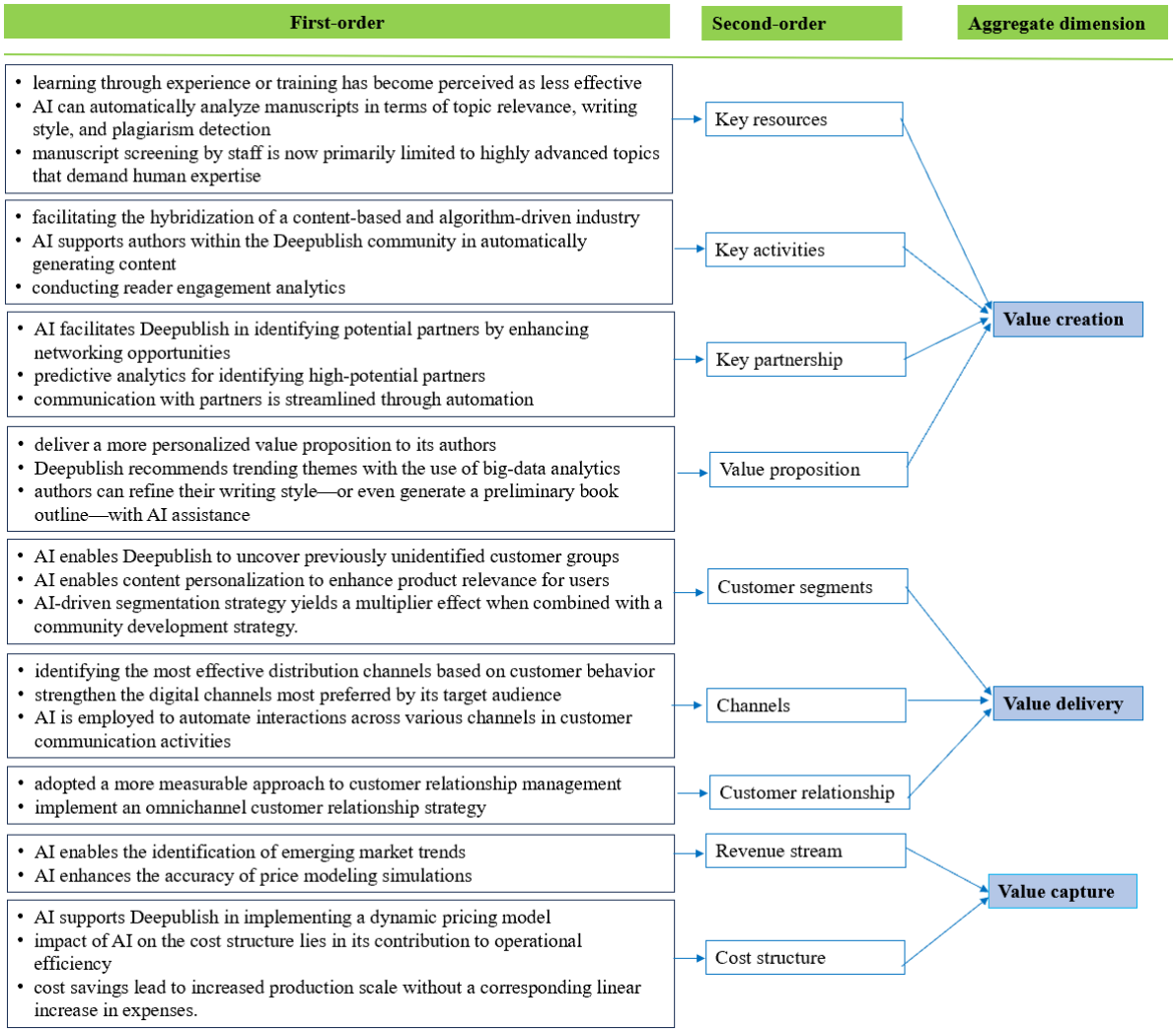

Figure 2. Data Structure

Value Creation

Before the adoption of AI, editorial and marketing staff learned primarily through experience or formal training. With the integration of AI, learning through experience or training has become perceived as less effective. Instead, self-directed learning supported by AI has enabled a faster and more flexible learning process. Employees can engage in trial-and-error learning with AI assistance, adapting to their

own schedules. For instance, in adaptive microlearning related to SEO, employees who previously had to undergo step-by-step formal training can now learn independently with the help of AI.

Initial screening processes can also be supported by AI. For example, AI can automatically analyze manuscripts in terms of topic relevance, writing style, and plagiarism detection. Prior to AI implementation, all these tasks were performed manually by staff. With the adoption of AI, such tasks can now be automated with significantly higher accuracy. Nevertheless, human intervention and judgment remain necessary to analyze anomalous cases. Scientific knowledge that is specific to higher education, novel, and related to engineering, mathematics, or natural sciences still requires human justification. Therefore, manuscript screening by staff is now primarily limited to highly advanced topics that demand human expertise.

AI contributes to the company's key activities by facilitating the hybridization of a content-based and algorithm-driven industry. Foundational human roles can be delegated to AI through automation, allowing humans to focus on creative production and complex problem-solving. These findings also create new business opportunities for the company, such as offering AI-generated micro publications, personalized subscription models, and on-demand publishing services. Among these three opportunities, only the third—on-demand publishing—has currently been implemented by Deepublish.

"The menu of publications offered by Deepublish provides the intellectual nourishment our organization needs to enhance educational quality. We warmly welcome the services provided by Deepublish to support student achievement." (Rector, Universitas Komputer Indonesia)

The core activity of the publishing industry is content development. AI supports authors within the Deepublish community in automatically generating content. Although AI-generated content still requires editing, it serves as a starting point to spark creativity. AI also assists Deepublish in conducting reader engagement analytics. The company publishes a variety of articles on topics such as book writing strategies, academic career development tips for lecturers, thesis writing guidance for students, plagiarism avoidance techniques, and more.

AI facilitates Deepublish in identifying potential partners by enhancing networking opportunities. This is achieved by analyzing social networks to identify shared interests with prospective collaborators. Based on these similarities, Deepublish can initiate targeted outreach. This approach is significantly more effective than relying solely on in-person networking to establish partnerships.

AI also enables Deepublish to conduct *predictive analytics for identifying high-potential partners.* By leveraging historical data, AI can help pinpoint prospective partners who are likely to generate substantial value and impact on profitability.

"We have data showing where customers go when they check out on our online store—whether they come directly to our website or are referred by third parties. If they come through others, then we need to approach those third parties. AI is already starting to do that." (Manager)

Communication with partners is also streamlined through automation. AI supports Deepublish in classifying different types of partners, managing their specific requests, and understanding their needs. For instance, some reseller partners focus primarily on distributing fiction books, while others specialize in academic literature. Automation is also used to manage incentives, such as providing bonuses and discounts to resellers who act as strategic partners.

AI enables Deepublish to *deliver a more personalized value proposition to its authors.* The company has encouraged its employees to become proficient in using AI, and these employees, in turn, provide guidance to authors during the manuscript development process. Furthermore, Deepublish offers

services to lecturers and researchers to convert their research reports into popular books that are accessible to the general public. In short, Deepublish does not merely act as a book publisher; it actively assists authors in completing their manuscripts, as illustrated below:

"So, we don't just accept finished manuscripts. We actually help you get it done. If needed, we even help you create the manuscript from scratch. I mean, how much better can we be, right? We show you the way, and today's technology really helps a lot." (Production Manager).

AI enables Deepublish to provide authors with ideas for crafting a more personalized value proposition. Using big-data analytics, Deepublish recommends trending themes in the fiction-book market. Meanwhile, for academic books, au*thors can refine their writing style—or even generate a preliminary book outline—with AI assistance,* as explained by the following informant:

"Each book has its own style, and each academic field has its own conventions. Writers are often inconsistent with their writing style—sometimes it still sounds too much like spoken language. AI can help quickly make it more consistent and polished." (Production Division).

Value Delivery

By utilizing historical purchase data, website behavior, and interactions with content, Deepublish is able to more accurately identify new customer segments. This approach even *enables Deepublish to uncover previously unidentified customer groups.* For instance, lecturers and students often exhibit distinct preferences. With such data, Deepublish can offer more tailored product recommendations that align with the specific needs of each segment.

Deepublish has pursued innovation in acquiring new customers through *content personalization, aiming to enhance product relevance for individual users.* AI facilitates Deepublish in providing personalized product recommendations—similar to strategies used by platforms like Amazon or Netflix—where each customer receives book suggestions based on their interests and needs. For example, a lecturer in the field of business who frequently purchases books on marketing management will receive recommendations whenever new titles in that area are released. A similar strategy can be applied to students by segmenting them according to their academic majors.

AI-driven segmentation strategy yields a multiplier effect when combined with a community development strategy. Lecturers or students who are part of Deepublish-managed communities can share information about newly published books. These communities not only help the company to better meet customer needs within each segment, but also support knowledge dissemination and the development of a broader academic ecosystem.

AI supports innovation in the channels element by assisting Deepublish in identifying the most effective distribution channels based on customer behavior. For example, by analyzing user interaction data from its website, social media platforms, and marketplaces such as Tokopedia or Shopee, AI can recommend which digital channels generate the highest sales conversions for specific customer segments. In Yogyakarta, the city where Deepublish is located and home to many universities, AI can identify which university students make purchases through which channels—such as mobile apps, Deepublish's official Instagram account, or WhatsApp Business. Based on these insights, Deepublish can *strengthen the digital channels most preferred by its target audience.*

For customer communication, *AI is employed to automate interactions across various channels.* Intelligent chatbots are integrated into Deepublish's official website to respond in real-time to customer inquiries about book availability, title recommendations based on academic programs, or shipping status. These innovations not only enhance distribution efficiency but also improve the accuracy of product recommendations, although human intervention remains necessary in certain cases.

Deepublish has *adopted a more measurable approach to customer relationship management.* AI enables the company to develop engagement metrics for website visitors, such as the time spent reading an article, the frequency with which an article is shared on social media, or the number of comments generated. These data serve as the foundation for designing strategies that align with visitors' interests, as well as for planning community-based activities, thereby promoting physical engagement. In this way, Deepublish leverages AI to convert digital engagement into physical engagement.

By utilizing data analytics, Deepublish has begun to *implement an omnichannel customer relationship strategy*. The company integrates social media, email communications, and physical store interactions by synchronizing customer touchpoints across these various channels. Although the current implementation is still in its early stages—such as aligning product purchases with email promotions—the company is continuously refining this initiative. In the long term, the omnichannel strategy is expected to become more comprehensive and sophisticated.

Value Capture

AI assists Deepublish in processing large volumes of data, *enabling the identification of emerging market trends.* The use of big data analytics allows Deepublish to analyze sales data, social media discussions, and reader reviews. Through this analysis, the company can determine which genres are currently in demand and align its publishing decisions accordingly. Additionally, Deepublish leverages these insights to organize targeted events—such as seminars, book reviews, and meet-and-greet sessions with authors—to attract potential writers to publish their work through the company.

AI also *enhances the accuracy of price modeling simulations conducted by Deepublish*. By utilizing historical data, managers can simulate various pricing scenarios to estimate potential sales increases under different discount schemes. Even with general-purpose AI tools—such as ChatGPT or Claude—calculations can be performed more easily and accurately. On specific occasions, Deepublish adjusts its pricing strategies in response to situational trends. For instance, during the month of Ramadan, religious books experience a surge in demand, prompting the company to offer aggressive discounts. In addition, Deepublish implements tiered discount schemes for high-contributing net promoters: the greater the sales volume they generate, the higher the discounts they receive.

AI supports Deepublish in implementing a dynamic pricing model. This model is applied by analyzing market conditions, competitor pricing, and consumer behavior. Such a strategy enables the company to make real-time adjustments, maximizing revenue while simultaneously managing costs more efficiently. The primary impact of *AI on the cost structure lies in its contribution to operational efficiency.* AI can automate various stages of the production process, including editing, formatting, designing, and distribution. Prior to the adoption of AI, these activities required a large workforce and were susceptible to human error, often resulting in inefficiencies. With smoother operational workflows, Deepublish is now able to reallocate resources to higher value-added activities.

The cost savings leads to increased production scale without a corresponding linear increase in expenses. In fact, the company's operational scale can be expanded exponentially at significantly lower costs. For example, before implementing AI, scaling up production required a proportional increase in help desk staff. However, with AI-powered support systems, the company can now handle a larger volume of customer inquiries without increasing human resources linearly—achieving greater scale with substantially lower costs.

DISCUSSION: ENFOLDING WITH LITERATURE

AI Embedded İnterplays of Business Model Element

With the integration of AI into the organization, interactions among business model elements have become more dynamic. Normatively, the sequence of activities in a business model follows a linear progression: value creation → value delivery → value capture. However, this linear process is transformed into a more iterative one. The processes of value creation, value delivery, and value capture no longer occur in a sequential manner, but rather interact iteratively. As a result, the organization is able to respond to environmental needs more quickly and flexibly, as illustrated in Figure 3.

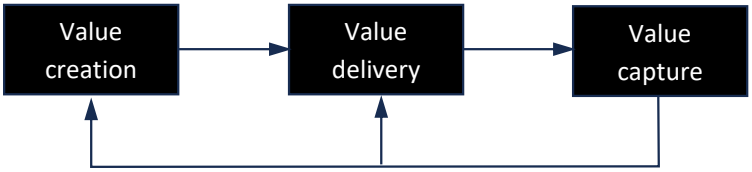

Figure 3. Dynamic nature among business model element

This study focuses on the three core elements of a business model: the creation, delivery, and capture of value. These three elements are consistently present in any business model. The emphasis on these components is grounded in the assertion that *"without the right balance between the creation, delivery, and capture of value, the model will not be in operation very long, at least not by a for-profit enterprise"* (Teece & Linden, 2017).

From an organizational structure perspective, functions related to marketing activities tend to experience higher levels of AI implementation. This is understandable, as marketing activities directly support the company's cash flow. In other words, the application of AI in marketing-related functions offers an immediate return. The tendency for marketing functions to adopt technological innovations earlier than other areas has been observed in various cases. For instance, during the COVID-19 pandemic, digital transformation efforts also prioritized marketing functions (Guenzi & Habel, 2020).

These marketing-related activities are not confined to a single component of the business model canvas. Instead, they are distributed across multiple elements of the business model. For this reason, value creation, value delivery, and value capture—each of which comprises several elements of the business model canvas—exhibit varying degrees of AI adoption. Elements that are more closely associated with marketing activities tend to experience greater breadth and depth of implementation compared to those less related to marketing. The following sub-section will discuss in more detail the differences in the breadth and depth of AI application across the domains of value creation, value delivery, and value capture.

Where Do Managers Play Roles?

In disruptive environments characterized by rapid change, firms are required to detect shifts early, maintain liquid resources, and possess the capability to reconfigure assets (Day & Schoemaker, 2016). However, it is important to note that the use of AI alone is insufficient to make organizations adaptive to disruptive change. AI is only capable of responding to systemic, mathematically predictable changes (Kanbach et al., 2024). Creativity, managerial judgment, and cognitive capabilities continue to play a crucial role in formulating out-of-the-box strategies. Without managerial cognitive intervention, a firm's actions become predictable to competitors (Helfat & Peteraf, 2015), which may result in the erosion of competitive advantage.

Another area where managerial intervention remains essential is in aligning with corporate values. While value creation, value delivery, and value capture are central components of a business model, they are distinct from corporate values. These three elements must be designed to support and reinforce the overarching corporate value system. A profitable business model is insufficient if it does not align with the company's core values; conversely, the business model should be a mechanism to

realize corporate values (Ma & Osiyevskyy, 2017). Misalignment poses a threat to the firm's long-term sustainability (Pedersen et al., 2018).

AI also has limitations in managing business model portfolios. A business model is a multifaceted construct, which is nearly impossible to fully model through AI. This is particularly true when a firm operates dual business models (Markides & Charitou, 2004; Winterhalter et al., 2015; Yassiva et al., 2023) or multiple business models (Markides & Charitou, 2004). The resulting complexity increases exponentially, rather than linearly (Müller et al., 2018). Managerial judgment and cognition are necessary to steer business model development in ways that avoid overlapping structures or market cannibalization (Markides & Charitou, 2004). The generic knowledge produced by AI must be integrated with the tacit knowledge of managers (Helfat & Peteraf, 2015; Kryeziu et al., 2024).

Degree of Depth and Bread of AI Integration

Specific challenges in the publishing industry—such as the creative nature of content production, the physical distribution of products, and traditional business models concerning royalties and pricing—serve as constraints to the uniform application of AI across all elements of the business model. This study finds that while AI can be generally applied within business models, the depth and breadth of its application across the three core elements—value creation, value delivery, and value capture—varies depending on strategic context, organizational maturity, and external environmental pressures.

Value creation demonstrates the greatest potential for deep AI integration compared to value delivery. One of the main reasons is that value creation requires higher-order cognitive processes, whereas value delivery is more operational and involves physical resource deployment, requiring relatively less cognitive input. In this sense, value creation demands narrow and deep cognitive engagement. Managers must possess firm-specific knowledge regarding the products or services offered to customers. This knowledge is highly path-dependent (Keller et al., 2022), and thus, while insights from other firms may be adopted, they often require modification or adaptation. Applying such knowledge without adaptation could result in the loss of product or service identity, thereby weakening the firm's position in a competitive market.

In contrast, the benefits of AI in value capture are lower than in value creation but higher than in value delivery. Most AI applications in value capture are used to run scenario simulations, helping firms evaluate the profitability of alternative strategic decisions (Liu et al., 2024). AI facilitates faster and more accurate decision-making, although managerial justification remains necessary to ensure contextual appropriateness (Beck & Wiersema, 2013; Keller et al., 2022).

CONCLUSION

In general, firms that adopt AI comprehensively tend to achieve higher levels of success compared to those with only partial implementation. Business model elements that are not enhanced by AI may become bottlenecks to the overall model, limiting performance to the weakest link. For Deepublish, an optimal strategy may involve focusing on deep AI integration within areas of value creation and digital delivery, while applying AI selectively to the most promising aspects of value capture, such as profitability analysis and sales forecasting.

Several activities within value creation—such as trend analysis, editorial work, layout, and design—exhibit moderate levels of AI application. While AI can support these tasks, human intervention remains essential, particularly in activities requiring managerial cognition. In contrast, when it comes to field-based physical activities, the relevance of AI is significantly reduced. This is understandable, given that AI technologies primarily enhance cognitive, rather than physical, capabilities. Similarly, within value delivery, some activities demonstrate higher AI relevance than others. For instance, AI is widely

applied in generating ideas for online distribution, but its utility diminishes in the context of physical distribution.

In short, AI has limited depth and breadth in supporting field-level resource deployment, collaboration, and organizational networking. The most suitable focus lies in implementing AI in digital technology-based value creation—e.g., digital delivery, digital design, print-on-demand, real-time sales dashboards, and custom publishing—while selectively applying AI to value capture activities with high potential, such as profitability analytics and sales prediction.

This study has certain limitations, which also offer opportunities for further research. One critical gap involves the ethical and privacy implications of AI adoption, which were not covered in this study. Future research may explore ethical and privacy concerns in the publishing industry, which is highly exposed to such issues due to its knowledge-intensive nature. This industry is particularly vulnerable to copyright infringement, ethical misconduct, and privacy violations. For policymakers, the findings of this study provide practical implications for developing regulations that support knowledge development. The absence of protection for knowledge creation processes may hinder progress. Therefore, governments must ensure that incentives for knowledge creators are not undermined by ethical breaches resulting from AI utilization.

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