Analysis of The Utilization of Artificial Intelligence (Ai) In Enhancing Innovation Across Various Modern Business Sectors

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Abstract: This study examines how the use of artificial intelligence (AI) can help various types of businesses to become more new ideas. Conducting research using the literature review method, namely analyzing five journals and five books related to the use of AI in business with publications in the period 2019-2023. This study aims to identify the role and capabilities of AI for the scope of modern business, analyze the contribution of AI in increasing innovation in several types of businesses, and explore the challenges and strategies for its implementation. The results of research on increasing artificial intelligence in decision making, automation processes, largescale data analysis, efficient operations, and individual services. By using the introduction of innovation for business design, procedures, goods, and services. AI is able to provide evidence that artificial intelligence continues to drive ideas in various industries such as manufacturing, SMEs, e-commerce, and finance. Overcoming the obstacles experienced by artificial intelligence including high costs, lack of experience, ethics that are considered lacking, confidential data and problems experienced by the system. The conclusion of the study is that AI must be more integrated into the strategic business approach in increasing business competition in this digital technology phase by considering technology, individuals, processes, and culture.

Keywords: AI, business innovation, literature review, digital technology, business transformation.

Introduction

In today's modern business environment, significant transformation is taking place as a result of digital transformation. Artificial Intelligence (AI) is one of the key technologies driving this change. Initially an experimental technology, AI has now evolved into a smart innovation for organizations across various types of businesses. It can be said that AI has become an essential tool for innovation in several business sectors, as it offers many benefits, such as minimizing operational costs and improving the accuracy of decision-making.

Artificial Intelligence (AI), with its machine-based technology, is considered capable of mimicking the intelligence of the human brain—specifically reasoning, learning, and problem-solving. AI can address various problems or perform tasks much like human intelligence in general. John McCarthy first introduced the concept of AI at the Dartmouth Conference in 1956. With advancements in computing technology, the availability of big data, and sophisticated machine learning in today's era, AI has been applied in the business sector to provide smart innovations. Examples include the use of AI in business through chatbots to deliver customer service, product recommendation systems, consumer demand analysis, and process automation.

In organizations that have already adopted AI, its effectiveness has been proven. As stated by Saputra (2021), organizations that have integrated AI into their processes have achieved a 40% improvement compared to those still using conventional methods. Meanwhile, Darman (2022) noted that 60% of organizations worldwide face both technical and non-technical barriers in implementing AI in their processes. Wardana & Putra (2021) reported that in Indonesia, only 23% of organizations/companies are able to use AI effectively, with most businesses still in the tactical or exploratory implementation stage. This indicates that there is still a gap to be filled in order to maximize AI's capabilities in the business environment. The ability to implement world-class innovations is a key aspect of business innovation in the VUCA era (Volatility, Uncertainty, Complexity, and Ambiguity). Setiawan & Rahman (2022) stated that business innovation is defined as the process of implementing new ideas to improve business activities and generate substantial profits. In facing current conditions, AI is seen as capable of providing smart innovations in various types of businesses, including product development planning and the creation of innovative services through new process designs and entirely new business models. Research on artificial intelligence has been carried out extensively, with most studies focusing on the technical aspects of AI and its impact on various types of businesses. For example, the study conducted by Hariyanto & Wijaya (2021) centers on management information systems, discussing the role of AI in business decision-making.

In contrast, Kusumawati & Putra (2022) focused their research on the superiority of competitive elements. Among the various studies reviewed, none have discussed the role of AI in driving innovation across different types of businesses. There is a lack of comprehensive research assessing AI's capability to foster innovation in the business industry. Overall, this study aims to conduct a literature-based analysis using a literature review method. The objective is to examine the role of AI in encouraging various business industries to innovate, while also identifying the barriers to its utilization and formulating ideal strategies for its application. Moreover, this method enables the synthesis of findings from previous studies to identify patterns, trends, and variations in current knowledge, and to draw consistent conclusions about what is known on the subject. This research is important because it provides both theoretical and empirical foundations for organizations seeking to leverage artificial intelligence to enhance their innovation capabilities. The study's findings are expected to help business decision-makers gain deeper insights into the potential, challenges, and strategies for AI implementation. This, in turn, will assist them in developing more effective approaches to utilizing this technology to drive innovation and business growth. Furthermore, this research can serve as a basis for in-depth investigations into how business innovation and AI interact in greater detail. The primary goal of this investigation is to analyze, from a literature perspective, the benefits of using AI across various business sectors to enhance innovation through a literature review approach.

The objectives of this research are as follows:

1. To determine the position and capacity of AI within the modernized business environment
2. To serve as a learning method for AI in helping to increase the percentage of innovation across various business sectors
3. To identify problems and develop new ideas within companies

Metode

In investigating opportunities for the use of AI in the business environment, the method employed is a literature review with a qualitative approach. This method was chosen as the primary approach because it allows the researcher to comprehensively analyze various literature sources relevant to the research topic in order to identify patterns and trends, as well as to distinguish the present study from previous research. This approach also enables the synthesis and development of existing research.

This study was conducted from April to May 2025, collecting data from academic publications in various electronic databases, including Scopus and Google Scholar. In addition, JSTOR and ScienceDirect also contributed to the data collection process. Keywords such as "Artificial Intelligence Business Innovation" and other related terms were used in the search. Boolean operations AND and OR were applied to obtain more accurate and comprehensive results. The literature review was carried out in several stages. First, the initial search based on keywords yielded 127 publishable articles. Second, based on titles and abstracts, 45 articles were identified as relevant to the research topic. Third, these articles were further analyzed using inclusion and exclusion criteria, resulting in a final selection of 10

literature sources consisting of 5 journals and 5 books. The research subjects in this study comprise these 10 sources, all discussing the utilization of AI in the context of business and innovation.
The selection of literature sources was based on the following inclusion criteria:

1. Publications from 2019–2023 to ensure the timeliness of the information
2. Discussion of AI implementation within the specific context of business
3. Inclusion of innovation aspects, which are the focus of the research
4. Discussion of strategies for AI implementation and its challenges
5. Availability of the complete text

A data extraction matrix was used to facilitate the systematic process of data collection, in which the researcher obtained relevant information from a selection of literature sources through documentation techniques. This matrix includes publication details (author, year, title), research objectives, methodology, and primarily the results, as well as the definition and concept of artificial intelligence in the business context.
Data analysis was carried out using the thematic content analysis method. The analysis process was conducted in the following stages:

1. Data coding – the researcher identified and coded relevant information from each source.
2. Categorization – the researcher identified similar codes and grouped them into specific categories.
3. Theme identification – the researcher identified patterns and themes that emerged from these categories.
4. Interpretation – the researcher interpreted the results of the analysis.

Dalam memastikan bahwa penelitian ini kredibel serta tidak bias digunakan dengan melakukan perbandingan data dari berbagai sumber seperti jurnal dan buku serta melakukan penilaian yang dilakukan oleh para ahli didalam teknologi informasi manajemen. Peneliti juga mempraktikkan refleksivitas dengan mengenali dan mencatat kemungkinan bias pribadi yang dapat memengaruhi interpretasi data. Mereka juga berhati-hati untuk memastikan bahwa kesimpulan yang diambil benar-benar berasal dari data bukan dari asumsi pribadi.

Results and Discussions

The capabilities and role of AI in the modern business environment. Based on the results of the literature analysis, AI has several significant roles and capabilities within modern business environments.
First, artificial intelligence functions to optimize corporate decision-making. According to the journal "*The Role of AI Technology in Optimizing Decision-Making in Business Development*", AI has the ability to process big data, learn from data, and make decisions automatically, enabling companies to adapt to changes more quickly and efficiently (Hariyanto & Wijaya, 2021). AI's ability to optimize decision-making can be observed in many aspects of business. In the strategic domain, AI helps identify new market opportunities and predict industry trends through comprehensive data analysis. In the tactical domain, AI assists in allocating resources more efficiently by predicting demand and operational needs. In the operational domain, AI supports real-time decision-making, such as setting production priorities or adjusting prices according to current market conditions. According to the book "*The Application of Artificial Intelligence (AI) in Business*", AI enables companies to operate "algorithmic businesses," where decisions are made based on thoroughly analyzed data rather than mere intuition (Wibowo & Hartanto, 2021).

Table 1. Roles and Capabilities of AI in Modern Business

No	Roles And Capability of Ai	Implementation of Business	Application Examples
1.	Decision-making Optimization	Large-scale data analysis for strategic and operational decisions	Demand prediction systems, credit risk analysis, business forecasting
2.	Process Automation	Completion of routine tasks with minimal human intervention	Customer service chatbots, robotics in manufacturing, RPA for document processing

No	Roles And Capability of Ai	Implementation of Business	Application Examples
3.	Data Analysis	Powerful industry-scale processing for business insights	Customer sentiment analysis, market segmentation, fraud pattern identification
4.	Personalization	Customization of services and products based on individual in terests	Product recommendation systems, targeted marketing, personalized financial services
5.	Trend Prediction	Market and consumer behavior forecasting for business anticipation	Consumer trend analysis, prediction of changing preferences, identification of emerging trends

Second, AI supports business process automation. The journal "*The Role of Artificial Intelligence (AI) in Maintaining Business Competitive Advantage*" reports that AI has the capability to reduce operational inefficiencies by automating routine tasks such as customer service through chatbots (Kusumawati & Putra, 2022). This automation is expected to allow employees to focus on tasks that require strategic thinking and innovation. Learning and adapting—key AI abilities—differentiate AI-based automation from conventional automation. For example, RPA (Robotic Process Automation) enhanced with AI's cognitive capabilities can detect anomalies and patterns in documents being processed and adjust the process to accommodate changes in the content or format of the documents. Contemporary customer service chatbots not only follow strict rules but can also understand user intent and learn from previous interactions to provide more contextual and personalized responses. As stated by Wardana & Putra (2021) in the journal "*Business Automation Through AI*", mid-level decision-making is also included in AI-based automation. In such situations, AI has limited autonomy to make decisions by considering certain parameters. For example, an inventory management system can directly adjust ordering schedules and stock levels based on sales data, supplier lead times, and external factors such as promotions or seasonal trends.

AI can demonstrate strong data analysis capabilities. According to the book "*Artificial Intelligence (AI) in E-Commerce*", AI has the ability to analyze massive volumes of data that cannot be processed manually (Pratama, 2021). This capability enables businesses to gain valuable insights about the market, internal operations, and customer data to support business planning. Data analysis relies on AI's ability to detect complex patterns that are difficult to identify using traditional analysis methods. Through techniques such as deep learning, AI can uncover hidden correlations in unstructured data such as text, images, or audio. For example, AI can identify consumer sentiment toward a specific product by analyzing reviews, determining the most frequently mentioned product features, and link them to purchasing patterns to better understand consumer preferences in e-commerce (Pratama, 2021). Purnomo & Santoso (2022) emphasized AI's ability to perform both predictive and prescriptive analytics in their book "*Innovation Management in the AI Era*". Prescriptive analysis recommends actions to be taken based on prediction results, while predictive analysis uses historical data to forecast future trends and events. Decision-making strategies are often based on a combination of these two types of analysis.

AI can also help tailor customer experiences. According to the book "*The Application of Artificial Intelligence (AI) in Business*", companies can increase customer loyalty by gaining deeper insights into customer needs and providing more personalized services (Wibowo & Hartanto, 2021). AI-based personalization goes beyond traditional customer segmentation, enabling "individual-level segmentation" or "one-to-one segmentation," where each customer is treated as a unique segment with their own preferences, needs, and behaviors. This high-level personalization can be seen in AI-powered recommendation systems, such as those used by Amazon or Netflix. To provide relevant recommendations, these systems consider a customer's purchase or viewing history as well as context, timing, location, and even external factors such as weather (Widodo & Pramono, 2022). AI-based personalization can also be observed in the financial sector in the form of automated financial advisory services, or robo-advisors, which offer investment recommendations based on an investor's risk profile, financial goals, and personal circumstances. In the retail sector, personalization is reflected in omnichannel shopping experiences that adjust offers and communications based on customer interactions across various touchpoints, both online and offline.

Artificial intelligence can certainly predict consumer behavior and trends effectively. The journal "*Analysis of the Influence of Artificial Intelligence on Business Innovation*" shows that AI can be more accurate than traditional methods in predicting market trends and consumer behavior (Setiawan &

Rahman, 2022). This predictive capability allows companies to respond more quickly to market changes and customer needs. By using machine learning models such as time series analysis, reinforcement learning, and neural networks, AI can detect seasonal patterns, cyclical trends, and behavioral influence components based on previously analyzed data. Moreover, AI has the ability to gather data from various sources, including economic indicators, online searches, and social media, to create a better picture of changing market conditions in the current era. In the journal "*Implementation of Artificial Intelligence in the MSME Sector in Indonesia*", Sutrisno & Hartono (2023) provide examples of how MSMEs can leverage AI-based tools to predict market trends at an affordable cost. For instance, AI-powered social media analytics applications can help MSMEs identify topics favored by their target consumers, enabling them to adjust their marketing strategies and product development more precisely.

In the book "*Innovation Management in the AI Era*", it is stated that AI has become a partner to humans in generating ideas, analyzing big data, and accelerating the innovation process. This aligns with the statement by Purnomo & Santoso (2022) that literature analysis shows AI can rapidly enhance innovation across various business sectors, shifting from an innovation paradigm entirely dependent on human creativity to a collaboration between humans and AI to enhance human cognitive abilities and provide ethical validation for AI products. There are several main categories of this contribution.

First and foremost, artificial intelligence drives the development of new products and services. Referring to the journal "*Analysis of the Influence of Artificial Intelligence on Business Innovation*", AI makes companies more innovative and enables unprecedented marketing approaches (Setiawan & Rahman, 2022). For example, AI facilitates the development of highly personalized product recommendation systems tailored to customer preferences and shopping behavior in the e-commerce market. AI also helps many industries develop new products. In the automotive industry, AI contributes by creating smart safety features such as automatic braking and lane detection. In the healthcare sector, AI enables the development of image-based diagnostic tools that can accurately detect diseases like cancer at early stages. In the entertainment industry, AI generative algorithms make it possible to produce content customized to user preferences, such as visual art, music, or even personalized stories.

Second, Wibowo & Hartanto (2021) emphasizes that AI enables a "continuous innovation" approach, which requires usage data and customer feedback to further develop goods and services. One example is smart home devices that become more intelligent and adaptive through software updates that learn usage patterns. At this stage, the product can be seen as a platform in development rather than a static entity.

Figure 1. AI's contributions

The following is an overview showing AI's contributions across various business sectors:

1. **Finance**: risk analysis and fraud detection
2. **Marketing**: ad personalization and customer data analysis

3. **Operations**: business process automation and supply chain optimization
4. **Human Resources**: performance analysis and candidate screening

Third, AI drives the evolution of business models. How AI enables companies to create disruptive business designs is discussed in the journal "*Optimizing Business Through Artificial Intelligence with Opportunity, Challenge, and Impact Analysis Across Various Business Sectors*" (Wardana & Putra, 2021). For example, ride-sharing and mobility business models are driven by artificial intelligence. These models are platform-based, connecting various entities within a digital ecosystem and facilitating transactions between them. Data and AI are the core assets of these models, enabling effective matching between providers and users, and generating network effects that enhance competitive advantage. Examples include e-commerce sites like Alibaba, ride-sharing platforms like Uber, and content platforms like TikTok, which use AI to tailor content according to user preferences. AI also supports the "as-a-service" business model. This model provides access and outcomes without ownership, unlike conventional models where customers purchase goods. One example is the manufacturing industry's "predictive maintenance as a service," where companies not only sell machines but also provide AI-based predictive maintenance services to ensure optimal performance and uptime. AI also enables the "freemium model with AI-based differentiation," as described in the book "*Entrepreneurship in the Digital Era*" by Widodo & Pramono (2022), where a basic version of the product is available for free, but premium AI-powered features such as predictive analytics or advanced personalization require additional fees. This design enables platform-based applications and SaaS (Software as a Service) offerings to leverage AI in creating added value.

Fourth is customer experience, which has become more innovative thanks to AI. The book "*Entrepreneurship in the Digital Era*" explains how AI enables more personalized customer experiences (Widodo & Pramono, 2022). The retail industry can create virtual shopping assistants, augmented reality (AR) experiences to try products virtually, and 24/7 responsive customer service powered by artificial intelligence.

By implementing anticipation, contextuality, and personalization, businesses can shape AI-based customer experience innovations. Personalization allows you to tailor various aspects for each individual. Contextuality ensures that communication aligns with the customer's current situation. Anticipation enables businesses to foresee and meet customer needs even before they realize them.

Pratama (2021) highlights several examples of innovations in e-commerce customer experience, such as AI-powered virtual try-ons that allow customers to try on clothing, glasses, or makeup virtually using computer vision technology. Similarly, instead of conventional navigation, AI-powered virtual shopping assistants with customized keyword adjustments can conduct precise sourcing through contextual conversations. In the banking sector, artificial intelligence drives innovations such as "robo-advisors" that provide financial advice tailored to customers' goals and financial situations, and fraud detection systems that accurately identify suspicious transactions while minimizing disruptions to legitimate users. These methods have the potential to enhance client assessment, improve client retention, and reduce operational costs (Wibowo & Hartanto, 2021).

Fifth, artificial intelligence drives innovation and co-creation. Purnomo & Santoso (2022) discuss how AI can balance elements of the ecosystem, consumers, and businesses. For example, in the software development industry, AI enables a "collaborative coding" approach, where AI assistants help development teams by suggesting code, detecting bugs, and automating routine tasks, thereby accelerating the development cycle. AI-powered collaboration platforms not only allow people to communicate with one another but can also provide extensive advice and knowledge to help individuals succeed in their work. For instance, AI can find creative solutions for effective meetings or identify workflow issues through the analysis of team communication patterns.

In the manufacturing industry, artificial intelligence promotes the "digital twin" approach, which enables experimentation and optimization through virtual simulations of physical products or production processes. This method facilitates co-creation with customers, allowing them to communicate with the digital twin to customize products according to their needs before physical production begins. The journal "*Implementation of Artificial Intelligence in the MSME Sector in Indonesia*" emphasizes the importance of artificial intelligence in driving innovation in the MSME sector (Sutrisno & Hartono, 2023). MSMEs with limited resources can leverage AI for data analysis, inventory management, and more effective digital advertising, enabling them to remain competitive.

AI's contribution to MSMEs is that it enables them to access market insights that were previously only available to large companies with substantial market research budgets. Social media analytics tools such as Google Analytics, Facebook Insights, and others can collect important data on customer behavior and preferences for marketing strategies and new products. Sukrisno & Hartono (2023) note that the adoption rate of AI by MSMEs in Indonesia still varies, with MSMEs in the technology and digital services sectors adopting AI faster than traditional MSMEs. However, with the decreasing cost of AI technology, MSMEs can expand their markets at lower costs through e-commerce platforms by implementing AI usage.

Challenges and Strategies for Implementing AI to Drive Business Innovation

Although AI has great potential to drive business innovation, its implementation faces many challenges. One of the main issues in adopting AI is the high investment cost, according to literature review analysis. The journal "*The Role of Artificial Intelligence (AI) in Maintaining Business Competitive Advantage*" notes that implementing AI requires substantial funding, particularly for infrastructure and supporting technologies (Kusumawati & Putra, 2022). This becomes a significant obstacle, especially for small and medium-sized enterprises.

The costs involved in implementing artificial intelligence include not only the purchase and planning of infrastructure but also data acquisition, model training, integration with existing systems, and ongoing maintenance. Many organizations struggle to secure millions of dollars in funding for large-scale AI initiatives. Moreover, it is challenging to convince people why they should invest in AI initiatives because their Return on Investment (ROI) is not always immediately visible or easily measurable.

Purnomo & Santoso (2022) stated that cost issues are often exacerbated by unrealistic expectations and a lack of strategic planning. Many organizations view artificial intelligence as a "quick fix" or a magical solution, only to be disappointed when the results do not meet their expectations and inefficient time is spent resolving the issues. This leads to the perception that the cost of AI investment is not worth the results.

Second, there is a shortage of AI experts. According to the book *Innovation Management in the AI Era* (Purnomo & Santoso, 2022), the lack of AI specialists hinders the optimal adoption and utilization of AI technology.

Competition for AI talent is intense, with large technology companies often offering salaries far beyond the reach of small or medium-sized businesses. These roles include data scientists who develop models, data engineers who manage data pipelines, and AI product managers who translate business needs into AI solutions.

Wardana & Putra (2021) found that the labor shortage in Indonesia is becoming increasingly prevalent. The demand for professional workers in the field of artificial intelligence has increased by 135% over the past three years amid limited educational resources. Many businesses face a dilemma between hiring expensive external talent or developing internal capabilities, which requires time and financial investment.

Third, there are issues of ethics and privacy. According to the journal *Optimization of Business Through Artificial Intelligence* (Wardana & Putra, 2021), data privacy and security are crucial. Since the use of AI often involves processing customer data, questions arise regarding ethics and the risks of privacy breaches. Ethical issues related to AI use are varied and complex. Some major concerns include algorithmic bias that can exacerbate existing discrimination, non-transparent AI decision-making (known as the "black box" problem), and social implications such as potential job losses due to automation. Privacy concerns include the possibility of confidential documents being leaked without proper consent and the exposure of sensitive data.

Susanto & Wijaya (2020) stated that the issue of confidential document leaks is becoming increasingly significant, as consumers often lack awareness, and strict regulations—such as the European GDPR or Indonesian laws—make it even more critical. If businesses fail to address these issues, they face legal sanctions, reputational damage, and loss of customer trust.

For issues related to integrating with existing systems, according to the book *Implementation of Artificial Intelligence (AI) in Life*, many organizations struggle to integrate AI into their business processes and existing technology infrastructure (Susanto & Wijaya, 2020).
Various factors contribute to integration challenges, such as "legacy systems" that were not designed to interact with modern AI, data stored in separate silos with inconsistent formats, and business processes that need to be restructured to accommodate AI capabilities. In the current situation, this often results in technical debt, where temporary solutions are implemented to address integration gaps, adding further complexity.
Wibowo & Hartanto (2021) state that cultural and organizational factors also play a role in integration difficulties. Often, even after technical issues are resolved, employee resistance to change, lack of management support, and misalignment between IT departments and business units can hinder effective AI integration.

In the issue of data accessibility and quality, Setiawan and Rahman (2022) emphasize that the effectiveness of AI heavily depends on the quality and quantity of available data. Many organizations face challenges in obtaining sufficient data to train AI models, or their data is scattered across multiple systems with inconsistent formats and quality, resulting in AI models that are ineffective or even potentially harmful. Incomplete or inaccurate data can render AI models ineffective or dangerous.
Data cleaning and preparation often require significant time and effort. Data scientists are estimated to spend 60–80% of their time preparing data before actual analysis can begin. Small and medium-sized enterprises (SMEs) often face more serious data issues due to limitations in collecting and storing historical data, as well as the lack of adequate data infrastructure. Many SMEs in Indonesia still rely on manual records or simple spreadsheets, which limit AI-based analytics. According to Sutrisno & Hartono (2023), the reviewed literature offers several strategies to address this issue.
Referring to the book "*The Application of Artificial Intelligence (AI) in Business*", organizations should start with small-scale AI projects that deliver quick results before investing in larger initiatives. This "start small, think big" strategy allows organizations to build momentum, learn from experience, and demonstrate the value of AI to stakeholders without taking large risks at the outset.
For example, a retailer could use a simple chatbot to answer customers' everyday questions before purchasing a full-scale personalization system that monitors all customer data. Purnomo & Santoso (2022) state that initial use cases should have the optimal combination of business value and feasibility, as well as a reasonable time to realize value. They suggest that focusing on automating repetitive and time-consuming processes is a good starting point for many organizations.
With enhanced digital capabilities, "*Analysis of the Influence of Artificial Intelligence on Business Innovation*" suggests that employee training and skill development in artificial intelligence and data science should be a top priority. The journal also recommends forming dedicated teams with expertise in these areas (Setiawan & Rahman, 2022).
The development of internal capability strategies can take various forms, such as on-the-job coaching and mentoring, as well as formal training programs and certifications. By using this "upskilling" method, organizations can add new AI skills while leveraging the domain and contextual knowledge already possessed by current employees. Susanto & Wijaya (2020) emphasize a T-shaped skills development approach, in which organizations cultivate deep AI specialists (the vertical part of the T) alongside cross-disciplinary professionals who have sufficient understanding of AI to apply it in various contexts. This combination enables business and technical teams to collaborate effectively.
Collaborating with the external ecosystem, as discussed in the book "*Entrepreneurship in the Digital Era*", a collaborative approach is highly recommended to address resource and knowledge limitations by working together with technology startups, academic institutions, and artificial intelligence (AI) technology providers (Widodo & Pramono, 2022). Partnering with AI startups can give access to talent and innovative technology without having to build the capabilities internally. Collaborating with academic institutions can support applied research and provide access to talent pipelines. AI solutions from cloud providers such as Google, Microsoft, and Amazon offer a fast way to gain AI capabilities without spending heavily on infrastructure or development.
Wardana & Putra (2021) identified the trend of "*AI-as-a-Service*", where businesses can use AI capabilities through a subscription model, allowing access to advanced technology at lower costs and without excessive technical burdens. Organizations with limited resources, such as SMEs, can benefit from this model.

In building an AI governance framework, according to the journal "*Implementation of Artificial Intelligence in the SME Sector in Indonesia*", an effective AI governance framework should include ethical, security, and regulatory compliance aspects. Policies on data collection and usage, algorithm transparency, privacy protection, and risk management are also crucial (Sutrisno & Hartono, 2023). In addition, the framework should establish clear roles and responsibilities and methods for evaluating AI systems to avoid bias or negative impacts. Purnomo & Santoso (2022) recommend a "responsible AI by design" approach, where ethical and governance considerations are incorporated from the very beginning of AI development, rather than as an afterthought. This method involves a thorough assessment of potential risks and consequences, along with plans for continuous monitoring and auditing of AI systems. Business value and organizational readiness are key factors. Hariyanto & Wijaya (2021) state that aligning AI initiatives with measurable and transparent business goals is essential. AI adoption should not be "technology for technology's sake"; instead, AI should be used to help companies achieve specific benefits, such as increasing revenue, reducing costs, and improving customer reviews. This includes identifying high-impact business use cases, building a strong business case with clear KPIs (Key Performance Indicators), and creating systems to measure and report the ROI of AI initiatives. Such strategies gain stakeholder support and encourage investment. Moreover, evaluating and improving organizational readiness for AI adoption is critical. Factors such as leadership commitment, a data-driven culture, employee digital literacy, and the availability of necessary technological infrastructure are examples of organizational readiness for AI. According to Wibowo & Hartanto (2021), before making major investments, an AI readiness assessment should be conducted to identify and address any gaps.
Referring to the book "*Innovation Management in the AI Era*", a holistic approach is essential for AI implementation, involving human, process, and organizational culture aspects in addition to technological aspects (Purnomo & Santoso, 2022). This comprehensive method is more likely to drive sustainable business innovation with AI.

Conclusion

The conclusion of this study is that artificial intelligence plays a strategic role in driving innovation across various types of businesses. Based on the results of a literature review analysis of ten sources on the use of AI in the contemporary business environment, AI not only helps automate daily tasks but also drives innovation, enabling businesses to develop new, more competitive products, services, processes, and business models.

AI's ability to analyze big data and personalize customer experiences with business value supports strategic decision-making and provides a solid foundation for business innovation. AI enables a data-driven approach to innovation, where product and service development decisions are based on market data and deep insights rather than solely on opinions or intuition.
It has been proven that AI has driven innovation across various industries, from manufacturing to finance as well as SMEs. Moreover, AI has had a significant impact on operational efficiency, customer experience, and organizational competitiveness. In e-commerce, AI has spurred innovations such as highly personalized recommendation systems, virtual shopping assistants, and dynamic pricing. In manufacturing, AI-driven innovations include predictive maintenance, automated quality control, and automation. AI enables SMEs to "democratize innovation" by providing them with capabilities and insights that were previously accessible only to large companies with substantial resources. By using affordable and user-friendly AI-based tools, SMEs with limited resources can innovate in their products, services, and business models. However, the use of AI to drive innovation still faces challenges such as high costs, limited skills, ethical and data privacy issues, difficulties integrating with existing systems, and problems with data quality and accessibility. These challenges can lead to an "AI gap," where only large, established organizations can fully leverage AI's potential while others are left behind. AI adoption should be strategic and gradual to address these issues. It should prioritize business benefits and organizational readiness, collaborate with the external ecosystem, build a comprehensive AI governance framework, and enhance internal digital capabilities. To achieve success in innovation, AI must be viewed from a holistic perspective, taking into account all elements of the organization, including people, technology, processes, and culture.

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