

# The Role of Artificial Intelligence (AI) in Business Transformation: A Systematic Literature Review

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## Abstract

Conventional Computer systems helped digitalize the business, but they did not address all business bottlenecks. AI-powered systems offered better automated business services than traditional computer systems, saving time and cost. While the huge shift in business processes was beneficial, it also led to misunderstandings, such as rumors of a threat to jobs and humanity. Such information was flooding blogs, vlogs, podcasts, and news media, creating confusion among regular technology users. In this backdrop, this study aims to explore whether AI-driven systems have really assisted in transforming modern business, or whether it is a subject of misconceptions and rumors due to their magical capabilities. This study adopts PRISMA guidelines to review 137 articles from 2020 to 2026. This research addresses the question: How do AI-powered systems help transform modern business processes? Themes were generated from 16 business domains. The study identified four themes from the reviews: operational automation, data-driven decision-making, customer experience & personalization, and innovation in product and service delivery. This study revealed that AI-driven tools have greatly improved business processes. The misconceptions and rumors arose from exaggerated statements in various news media and grey literature. By highlighting the AI's contribution to transforming business practices, this research sought to clarify whether the benefits outweigh the drawbacks.

**Keywords:** Artificial Intelligence, AI Opportunity, AI Benefit, AI Misunderstanding

## 1. Introduction

AI-assisted tools have been increasingly used by large industries and organizations worldwide to automate their business processes (Agrawal et al., 2024; Marinšek et al., 2023; Yigitcanlar et al., 2024; McElheran et al., 2025; Ali et al., 2025). While small businesses are being oriented toward the benefits of AI or are still waiting to integrate AI-powered systems, some speculative skepticism has overshadowed the technology market. Usually, these speculations are presented in two categories: risk and ethics. In addition, some misconceptions and rumors have become a gossip subject among people. This speculation and rumor spread so widely that it became hyperbole, creating confusion among potential AI users. We argue that despite AI's few shortcomings, AI-driven tools have significantly addressed modern business bottlenecks.

A business crisis is a series of disruptive events that threaten the viability and survival of organizations (Bundy et al., 2017; Coombs, 2007; Pearson & Clair, 1998). Business crises arise from bottlenecks that disrupt the flow of products and services, leading to unprofitability. Prior to the advent of Artificial Intelligence (AI), businesses used conventional computer systems that relied on if-then-else or rule-based algorithms. In fact, there were still humans in collaboration with computers, which somehow hindered automation. Therefore, the conventional computing systems digitalized the business, but they did not solve all business crises. A study showed that digitalized businesses sustained better than non-digitalized ones in the Middle East, Central Asia, and China during difficult times (Abidi et al., 2023). While

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conventional computer systems were much better than manual handling, various challenges persisted because the systems worked only as tools, and those tools were still handled by humans, with no automation. These business challenges are now well handled by AI-powered systems, resulting in greater accuracy, cost savings, and time savings.

The use of AI systems rose after OpenAI's ChatGPT was launched in 2022, despite its origins dating back some 65 years to the MIT lab. ChatGPT offered much better results than conventional search engines. Then it caught the attention of entrepreneurs and business leaders (de Winter et al., 2025). Since then, AI-powered systems have been widely adopted across many organizations to address existing problems. For example, in Australia, only 10% of Fortune 500 companies are expected to continue using AI in the financial sector in the near future (Mitchell, 2025), despite concerns and rumors. To address AI's shortcomings, designers have been advised to focus on process intelligence, as AI must align with business processes (Reinkemeyer, 2024).

AI is closely embedded in everyday human life. The closeness of AI would certainly create concern in society. People are prone to being victims of false information in many ways in everyday life. After the advent of AI, rumors, misinformation, disinformation, and misconceptions about AI increased. A study argued that such misinformation arises when people have low literacy about AI and cannot properly evaluate it (Kim & Ryoo, 2026). Today's public discussion, such as blogs, vlogs, and podcasts, often involves rumorous news, and therefore, researchers are working to address this by using rational networks to detect rumors (Yin et al., 2026). Social media tends to be more prone to such false information because people trust it for literary reasons. Apart from these misunderstandings about AI, there are still unclear concepts about AI among academicians and researchers (Emmert-Streib et al., 2020). This author stated that artificial intelligence is not yet properly defined mathematically, even after 65 years of its inception.

The most widely heard rumor is that AI will take over all jobs (Gomes, 2025; World Economic Forum, 2025) and that individuals will soon be underemployed. It is natural for people to take care of the living. However, others spread such rumors to boost view counts. A similar misconception arose when computer systems were first integrated to digitize business processes. Instead of taking human jobs, it created many digital jobs. People collaborated with computers to achieve business goals.

It is true that big corporations have laid off employees for various reasons. However, this is part of downsizing and upsizing in business, and therefore, it continues to happen, as it has in the past, when AI did not exist. People fear that AI will take over the world and replace humanity (Gertenbach, 2025). It is too early to spread such a narrative, even from the managerial level of big companies. It is important that there should be research to clarify the misunderstanding.

Another misunderstanding is that AI-powered software is being used for espionage and to spy on employees' performance (Islam et al., 2026; Yu et al., 2026). There are always black sheep in a herd. While there is a provision for employee appraisal, it is not necessary to watch employees every hour. AI is in its early stages, and it will take time to address issues related to surveillance and security. Rumors began in the early days of artificial intelligence, intimidating potential users. This misleading information in research news and media was amplified to the point of creating havoc in society.

Nearly half of the motivated framing of information sources from newspapers about AI use (Vicsek et al., 2026). Another side of this is that people are unable to evaluate available information effectively due to their AI literacy, knowledge, and skills. Despite these rumpuses and misinformation spreading in the social market for AI, it has assisted businesses in many ways, such as operational automation, data-driven decision-making, Customer Experience and Personalization, and Innovation in Product and Service Delivery.

Therefore, this research aims to explore how artificial intelligence has contributed to modern business and has become an organizational asset despite misunderstandings. This study presents the brighter side of AI use in modern business, despite exaggerated suspicion and rumors. This study addressed the following questions: *How does artificial intelligence help transform modern business processes?*

## 2. Method and Article Selection Criteria

This study employed a qualitative Thematic Analysis (TA) to examine the existing literature. Thematic Analysis (TA) was initially conceptualized in an equivocal sense, inviting interpretations such as “a process for encoding qualitative information”, “a way of seeing”, and “encoding qualitative material through the use of codes and themes” (Boyatzis, 1998, p. 4). Subsequently, this framework evolved into a full-fledged qualitative data analytical tool, featuring labels “familiarizing with data”, “generating code”, and “constructing themes”, providing some flexibility without violating a single ontological and epistemological point of view. To develop the theme, a deductive approach was adopted to sub-categorize the business domain. To maintain analytical rigor, the themes were reorganized until they accurately captured the sense of the business domain using AI.

### 2.1 Search String and Strategy

A comprehensive search string was developed to align the research question using keywords and Boolean operators: ("artificial intelligence" OR AI OR "machine learning" OR "algorithmic systems") AND (myth\* OR misconception\* OR rumor\* OR perception\* OR belief\* OR narrative\*) AND ("business transformation" OR "organizational transformation") AND (crisis OR disruption OR "crisis management") AND (opportunity\* OR benefit\* OR advantage\* OR potential\*). A systematic literature search was conducted in Google Scholar and ProQuest. The articles were filtered as review types with dates ranging from 2020 to the present. Google Scholar listed 138 results, and ProQuest listed 731 articles. However, a few articles were also reviewed to capture important ideas that came into the radar of this research. The entire selection process adheres to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) to ensure transparency, reproducibility, and methodological rigor. A detailed PRISMA flow diagram was constructed to visually represent the inclusion and exclusion of articles.

After applying the eligibility criteria, 137 articles were selected for analysis. Sixteen major businesses were identified deductively as having functional AI systems or as potential. Then we reviewed how these businesses were assisted by AI-powered systems. In doing so, the AI functions' criteria repeatedly overlapped into each other's domains, leading to redundancy. Sixteen business domains were abstracted into four top-level groups of themes to remove the redundancy: (1) Operational Automation, (2) Data-Driven Decision Making, (3) Customer Experience and Personalization, (4) Innovation in Product and Service Delivery.

An Excel matrix was developed to identify and store the reviewed content. All articles were entered into a review matrix that captured key elements such as the publication year, research

title, location, purpose, method, and findings. Then, business-wise applications of AI tools were identified by comparing information taken from the matrix. Then, the business functions of AI are summarized and synthesized into higher-order themes, including Operational Automation, Data-Driven Decision Making, Customer Experience and Personalization, and Innovation in Product and Service Delivery. Table 1 illustrates the synthesized themes. The PRISMA flow diagram depicts the flow of information through the four stages of the screening process: identification, screening, eligibility, and inclusion.

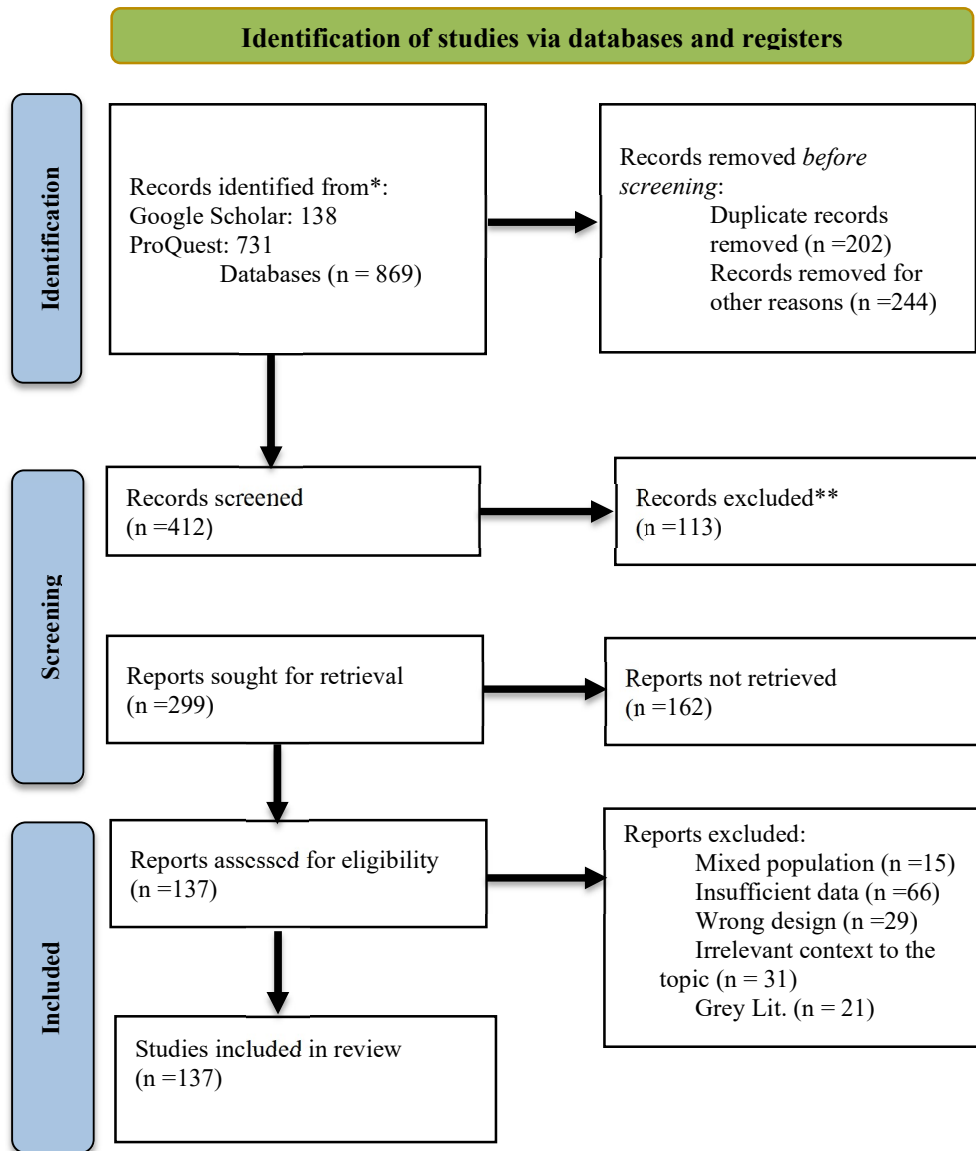


Figure 1: PRISMA flow diagram of article selection process

### 3. Synthesized Results

This section presents a comprehensive synthesized business domain under the following themes: (1) Operational Automation, (2) Data-Driven Decision Making, (3) Customer

Experience and Personalization, (4) Innovation in Product and Service Delivery. These categories contain business functions powered by AI tools.

### **3.1 Operational Automation**

The following businesses were identified as utilizing AI systems to automate business processes. These business domains align with the operational automation area.

### **3.2 AI in Supply Chain and its Operation**

In supply chain management, manual record keeping, stock take, route management, and real-time logistics tracking are complex to handle manually and, therefore, have been automated using AI to ease the task. AI systems additionally help to maintain accuracy in inventory management and its key performance indicators (Munoz et al., 2021). A study argued that the Random Forest model achieved high performance in automation-related components, with 94% accuracy and 93% precision (Rahman et al., 2024). One of the better examples is Bangladesh, where inventory management has been found to be a key element of the supply chain ecosystem in SMEs (Alam et al., 2024). The use of an AI ecosystem in supply chain management facilitates dynamic routing optimization. The nature of ERP systems is complicated, especially in supply chain management. This compilation can be well handled by AI-powered systems.

### **3.3 AI in Finance and Accounting**

Bookkeeping and auditing, finance, and accounting are cumbersome tasks when handled manually, which creates bottlenecks. AI systems, such as agentic AI, have simplified these tasks, especially in data entry, transaction processing and reconciliation, invoice processing, and report distribution. A study illustrated the big picture of machine learning techniques in business, finance, and accounting tasks, where AI-driven software transformed the entire business process (Gao et al., 2024). Another study found that AI-assisted blockchain technology reduced costs, increased efficiency, and enabled real-time reporting (Kanaparthy, 2024). The study further illustrated that bookkeeping tasks were automated and audit tasks sped up. An independent study in Thailand found that Robotic Process Automation (RPA) automated various processes to improve operational efficiency and compliance with policies (Thamsersang & Intalar, 2024). Therefore, AI systems contributed to unlimited tasks, simplifying invoice scanning, validating data, and purchasing and improving order management. Additionally, AI-driven systems collect credit data and other user inputs to facilitate storage, enabling them to be used with greater accuracy in the future. In finance and digital banking, fraud detection jobs are simplified by AI Systems (George et al., 2025). With the growth of fraudulent activities, AI-powered systems became a tool for detection. Various studies showed that AI systems contributed to simplifying cash flow forecasting and comparison of models between years (Wasserbacher & Spindler, 2022; Ozlem & Tan, 2022; Tang, 2024).

### **3.4 AI in Business Communication**

Untimely business communication has several consequences, including customer and business loss. Business competition was made possible due to AI-enabled, timely communication. This was not possible with conventional and human-computer collaboration communication systems. AI systems impact business communication with customers, enabling personalized communication 24 hours a day through chatbots and AI agents (Balmer et al., 2020). Traceability of AI systems helped to forecast future interactions in a timely manner. A review of the telecom industry shows that 45 separate studies were completely revolutionized by AI systems (Gupta & Goyal, 2024). Internal communication and collaboration among employees became possible. A survey of 625 decision makers on the role of AI in communication found

that 42% reported already using it, and the remaining 29% said they were testing AI-powered communication systems (Zhang et al., 2021). Another area of AI-powered communication is the teaching and learning industry. A teaching chatbot communicates with its current and prospective students to answer their questions appropriately, with encouragement, better than a human would (Kuhail et al., 2023). The higher education industry adopted chatbots despite its challenges to meet student requirements (Emdad et al., 2024).

### **3.5 AI in Human Resources**

AI systems are used in Human Resource Management (HRM) for candidate recruitment and selection (Cohen et al., 2025). A study showed that candidates' facial expressions are also analyzed using AI algorithms (Cannata et al., 2024). Automating job interviews, sending reminders, meeting setup, and keyword matching are common tasks for which AI systems are used (Liu, 2025; Mujtaba & Mahapatra, 2025; Frazzetto et al., 2025). Employee training and development, performance measuring, appraisal, employee relations, workforce planning, compensation and benefits, employee turnover forecasting, and employee well-being measurement are the core areas where AI systems are utilized (Afzal et al., 2023; Chowdhury et al., 2023; Qamar et al., 2021).

### **3.6 Data-Driven Decision Making**

The following businesses were identified as using AI systems to automate business processes.

#### **3.6.1 AI in Big Data and Predictive Analysis**

The use of AI replaced previously digitized instrumentation and became a transformative force in processing Big Data and predictive analytics (Madhavaram et al., 2024). A recent study on the contribution of AI to Big Data revealed that AI technologies, including machine learning and deep learning, underpin major business revolutions across domains such as health care, autonomous decision-making, and finance (Feng et al., 2024). As the world produced a formidable amount of data, it was inevitable to develop a system to process this diversity, including operational, transactional, production, and social media data. For example, LSTM (Long Short-Term Memory) networks, a type of RNN designed to work with a sequence of data, can be exploited to analyze because LSTM, by its nature, remembers patterns for a long period of time; therefore, it is suitable for predicting on past measured data (Menges & Rasheed, 2024). Without an AI-powered system, big data processing is very time-consuming and less accurate.

#### **3.6.2 AI in Sentiment Analysis Business**

Sentiment analysis is a sub-branch of computational linguistics that aims to understand emotion, subjectivity, expression polarity, and cultural context from sources such as Twitter, Facebook, and LinkedIn (Liu, 2015; Bhadane et al., 2015; Taboada et al., 2011). Sentiment analysis can be performed in two ways: by a human or by a machine learning algorithm. Some studies reported that machine learning systems can handle large amounts of data from streaming sources with higher accuracy (Dhaoui, et al., 2017; Batista et al., 2018). Human-led sentiment analysis introduced bias and was intuitively wrong. Such a feed of continuous data comes from customer comments, reviews, and opinion articles from various social media and news sites. Sentiment analysis has also been applied in the election system, particularly to voter behavior, political campaigns, and opinion polling. It was used in presidential elections in Indonesia, India, Mexico, Nigeria, and many other countries (Kristiyanti et al., 2019; Bhowmik et al., 2024; Gonzalez et al., 2024; Attai et al., 2024).

### **3.6.3 AI in Search Engine Optimization (SEO) Business**

Conventional web search in Google, Yahoo, Alta Vista or AOL only indexed the link using page-rank algorithm. Users still had to perform a lot of steps to reach the desired information. With AI powered search engines, this has ended. AI powered communication chats the way humans chat using prompts like natural language. An author (Chen et al., 2025) argued that AI powered search engines may drop to zero if content creators used conventional optimization techniques. A study in Cornell University indicated that generative search engines preferred content predictable for large language models (LLMs) (Ma et al., 2025). Technology news reportedly stated that search engines turn to AI-mode to make more interactive prompts with high precision due to interactive nature (Shittu, 2025). Prompt-based search relied on Trustworthy Useful Responsible (TURA) principles that better handles multi-dimensional queries than conventional search (Zhao et al., 2025). Conventional search worked on a boolean keywords basis while prompt-based search resembled in many ways like plain language. Less sophisticated users can query AI platforms interactively for their desired outputs. The history of search engine business evolved from keywords to keyless search, developing to multimodal form of search using audio, picture, and video (Veluru et al., 2025). A study proposed a hybrid model in optimizing search extending to combining methods (Ahluwalia et al., 2024). In this model, there are three components to combine. First the keywords are converted into precise search terms, match them with the resource and finally semantic search is conducted to make sure of the context relation, subsequent relevant output.

### **3.6.4 AI in Fraud Detection and Reporting**

Fraud refers to unacceptable activities devised from human ingenuity. Most of the fraudulent activities take place in the financial sector; and therefore, financial institutions define it with higher significance (Akers & Gissel, 2006). AI systems are better than human intuition in identifying fraud. It is important to explore the patterns and modes of fraud in the large data sets, which humans are slow and faulty. Studies identified that AI algorithm such as Neural Networks (NN), Convolution Neural Networks (CNN), Recurrent Neural Network (RNN), Long Short-Term Memory (LSTM), and auto encoders resulted in high level of precision in detecting fraud (Mohan et al., 2024; Chotrani et al., 2024). A study argued that the best fraud detection technique should be a combination of unsupervised clustering, supervised learning with human collaboration (Wahid & Hassini, 2024). Overall, an AI powered system was already established in automation, helping to predict fraudulent activities in the given domain in time.

## **3.7 Customer Experience and Personalization**

The following businesses were identified implementing AI systems to automate the business processes reportedly saving time and cost.

### **3.7.1 AI in Customer Services**

A quantitative study conducted in Thailand revealed that the use of AI in chatbots increased customer responsiveness, ease of use, trustworthiness and positive influence in service delivery (Srisakun & Niyomsamit, 2025). AI-powered chat bot provided improved customer experience, even if there is no human interaction loop in front of the customer. Similarly, another study also indicated that adoption of AI reduced costs by 20 % and increased level of customer satisfaction (Susanto & Khaq, 2024). Voice prompts added additional values onto the chat systems. In fact, many customers are already positive towards adoption of AI in customer service areas. It is natural for busy customers to have service for twenty-four hours. They can use it any time, day or night. A quality study in Afghanistan indicated improved customer satisfaction aligned to their expectation to match with customer's ethical understanding (Zaheer

et al., 2025). This indicates that AI powered systems have been increasingly used in the customer management field.

### **3.7.2 AI in Sales and Marketing**

Content based personalization became possible with AI systems. Personalized services give a customer a preferred feature which makes it comfortable to use in a repetitive manner. With this facility, customers can be engaged in their preferred time. Furthermore, live chatbot facilitates customers in real time boosting sales and marketing strategy (Rane et al., 2024). This helped assist in customer experience improving loyalty. Automated services set human resources free and give further opportunities to prioritize high-valued tasks (Mayer et al., 2025). AI tools help segregate older customers and new customers detailing higher classification. Sales data were analyzed by AI-tools for predictive analysis (Bisaria et al., 2025). Email marketing and media content wiring is made easier with the use of AI agents.

### **3.7.3 AI in Language learning and Testing Business**

The language testing business widely adopted AI-powered systems especially in listening, reading and writing, vocabulary building and error analysis and correction (Almehmedi, 2025; You et al, 2026). British Council (2025) reported that it adopted AI in reading, writing and speaking in their test. Research conducted by Syuhra et al., (2025) argued that personalized learning can be offered to the learners along with grammar learning. Teaching tools like ELSA Speak, Duolingo and even ChatGPT provide language learning facilities providing much better experience to learners. This encouraged new teaching businesses to come front in the market.

## **3.8 Innovation in Product and Service Delivery**

The following businesses were identified using AI systems to automate the business processes.

### **3.8.1 AI in Medical Business**

AI software became a breakthrough in the medical field (Murala et al., 2026). Medical Business can be broadly categorized into three sections: diagnosis, medicine and surgical. Machine learning and deep learning prevailed in all these categories. AI systems are being used in MRI, CT scan and X-rays in diagnosis to identify disease with a faster result, handling large volumes of medical data with accuracy (Kitsios et al., 2023). Administration, automation, scheduling, and handling insurance claims are already common in all businesses. A study conducted to compare unimodal and multimodal AI reported that the latter outperformed the former by 6.2% in AUC (Schouten et al., 2025). A review argued that the surgical validation assessment recommended the use of AI in preoperative assessment (Kenig et al., 2024). Similarly, another study presented a synthesis of their review stating that AI powered robotic machines help mapping tumors precisely during surgery while still preserving the health tissues of the patients with higher accuracy than humans (Leszczynska et al., 2025). In a study conducted in the field of radiology with 889 pulmonary nodules, human radiologists detected only 385 (43.31%) diagnostics whereas AI powered systems detected 881 (99.01%) with  $p < 0.001$  (Yang et al., 2025). Similarly, another study conducted on diagnosis of early cardiovascular disease and neurological degeneration, the use of AI powered algorithms are more accurate to forecast (Vara, et al., 2024; Rana et al., 2025). This indicates that AI contributed a lot to the human health industry. A structured review carried out concluded that diagnostic and clinical decision making has been improved in physicians in predicting and progression and personalizing treatments of the patient (Secinaro et al., 2021). This study further states that it was helpful to stop the spreading disease.

### **3.8.3 AI in Military Business**

The use of AI-driven techniques reached the military domain as well. Various studies indicated that AI related technologies have been widely used in the military including object detection and cybersecurity domain (Rashid et al., 2023; Gaire, 2023). Locating enemy targets using random forest algorithms and Artificial Neural Networks (ANN) made it easier (Baeza et al., 2025). Military planning, calculating and mitigating risk was found accurate due to the use of AI (Lewis & Vavrichek, 2024). AI related technology is also in drone surveillance, and it shaped the future of war, especially in countries like China and USA (Husain, 2021). Intelligence, surveillance and reconnaissance (ISR) over satellite and drone have been much improved by AI systems and has been competitively used by China, USA, Russia and NATO (Andrewson et al., 2025). The Economics Times (ET Online, 2024) reported that the USA completed an AI-controlled F-16 fighter jet test successfully with the Air Force secretary on flight.

### **3.8.4 AI in Digital Economy**

AI economy refers to a set of economic activities transformed by AI powered systems using hardware, software and services. In China there are 4400 AI organizations and 500 billion Yuan (Liu, 2024). China and the USA are spending more and harvesting more on AI systems in automation, manufacturing and smart cities, surveillance and infrastructure (Chopra et al., 2024). The news stated that China could get 26% of GDP boost by 2030. The World Economic Forum forecasts that 78 million AI jobs would be created by 2030. The same reports state that the USA spends \$500 million on AI super computing infrastructure with its initial data center in Texas and public-private partnership with OpenAI, Softbank, Microsoft, and NVIDIA.

### **3.8.5 AI in the Music Industry**

The music industry has not been untouched in the use of AI. It has massively adopted the use of AI in composing, arranging and producing music. Music tokenization has been facilitated by AI powered systems (Fradet et al., 2023). There are several python packages to handle various works of music. For example, Midi Tok is a Python package for MIDI file tokenization. Google, Spotify, and Apple Music customize individual listeners' preferences using AI systems which recommend the best music based on listener preferences (Schedl, et al., 2018; Ricci et., 2021). A survey conducted to find out if the company is using AI to generate music reported that deep learning techniques were used to generate music (Briot, et al., 2017; Herremans et al., 2017). The most notable example is SUNO.

### **3.8.6 AI in Podcasting Business**

With the advent of AI, it has been widely accepted to create and develop podcasts for targeted customers. Doing this, it has not only helped the regular customer, but it also helped visually handicapped individuals. Normally, the podcast is embedded at the button of textual information. AI in the podcast business helped to outreach to audiences. AI powered podcasts add value in podcasting work for education purposes with accurate reference; therefore, it has become an alternative to traditional way of podcasting (Desmedt et al., 2025). The rationale of AI use in podcasting is that it automatically structures the audio or video selecting the content based on the prompt. AI created podcasts to improve presentation and conclusion. Another study also recommends AI generated podcasts offer engaging content especially useful to students (Do et al., 2024). Efficiency and cost saving, accessibility and reach, personalization and engagement, new business areas have been reported as the advantages of the AI in podcasting vlogging business (Moses, 2025; Jorgovan, 2025).

Table 1: Thematic Summary in Tabular Form

Themes	Business Domain	AI Use in Business	Contribution Area
Operational Automation	Supply chain and its operation	Inventory and logistics management, ERP	Automated stock management, route optimization, Enhanced KPIs, and Accuracy in performance prediction
	Finance and Accounting	Machine learning, Blockchain, Robotic Process Automation (RPA)	Automated bookkeeping, speedier audits, expense categorization, Optimized forecasting
	Business Communication	Chatbots and AI assistance	Uninterrupted customer interaction 24/7, easy internal communication among employees, Teaching-Learning support
	Human Resource	Talent acquisition, Workforce planning, Appraisal	Resume screening, Interview automation, Performance measurement, Employee turnover forecasting
Data-Driven Decision Making	Big Data and Predictive Analysis	Machine learning, Deep learning, Long-short term memory (LSTM)	Large data sets handling, improved and accurate decision making, predicting trends and preemptive estimates
	Sentiment Analysis Business	Natural language process, mining from comment and reviews	Customer feedback, opinion ming, social media, election predication
	Search Engine and Optimization Business	AI driven search	Prompt-driven queries, Semantic search, accurate content ranking
	Fraud Detection and Reporting	Machine learning, Neural networks	Complex fraud detection, real time prediction
Customer Experience and Personalization	Customer Services	Chatbots, Scheduling	Customer responsiveness increase, Ease of use, Usefulness, cost reduction by 20%, Improved satisfaction
	Sales and Marketing	Customization and personalization, Chatbot, Social media automation	Improved customer experience on 24/7, Operational efficiency, data-driven marketing
	Language learning and Testing Business	AI based learning, Checking and marking by AI based systems	Improved speaking, listening, reading, writing, error correction and rubrics optimization
Innovation in Product and Service Delivery	Medical Business	Diagnostics use, Surgery, Administration	Quick and more accurate diagnostics, Precision in surgery, workflow automation
	Military Business	Object detection, Deep learning for target location, Random Fores	Risk mitigation, accuracy, ISR (intelligence, surveillance, reconnaissance)
	Digital Economy	AI based economic activities	Automation in business, Smart cities development, GDP growth, AI employment increase
	Music Industry	Music composition and recommendation	Personalized music to audience, MIDI file type handling, Music generation using deep learning
	Podcasting Business	Audio and video generation by AI powered systems	Accessibility with no discrimination, audience engagement, Personalization

#### 4. Discussion

This study investigated the opportunities of artificial intelligence. The careful examination of literature from various business domains revealed that many of the skepticisms are baseless. For example, some scholars argued that “automation” and “augmentation” cannot be separated from each other (Raisch & Krakowski, 2021). However, it is believed that the computational power of machines is increasing (Ng et al., 2021) and therefore, it should not be concerned whether AI use in management be automated or augmented. Both can be relatively instrumented in need. Underlying processing strength relies on hardware and software if they become assets in productivity in business. Another rumored term is “cultural constraint” when AI is used in various settings (Tariq et al., 2021). Cultural context is something that has to do with social phenomena. Such constraint does not negate the use of any type of technology in the cultural and local setting. Where human civilization is in constant flux, “cultural constraints” would not be a problem because of its very intrinsic nature of change. Society opens the gate for new things due to evolutionary change. For example, when computer systems used ASCII code to represent letters, computer scientists found a way for typing local fonts exploiting the Unicode system and thus people were able to process the word in the local language all over the world. To address the globalized AI system, localization was recommended (Shaikh, 2025). Localization of AI has huge potential implications in various cultural settings (Endsley, 2023).

Another rumor is that AI is more sophisticated, biased, misinterpreted as unreliable but the real use case is just the opposite. This research indicated the user's inability to judge trustworthiness of AI systems in a broader sense. AI is an algorithmic and mathematical component, not everyone may grasp the underlying structure. Believing on the darker side of AI seems to be enlarged and exaggerated by misconception. When human subjectivity carries a higher degree of bias than machines, it is less important to put more energy into such debate. In fact, machines provide more objectivity rather than human subjective insight. Contemporary discourse presents that AI provides little autonomy to humans and harms it in some way. AI's actual capability is miscalculated by the readers and researchers. Autonomy and automation do not completely depend on machines, it invites humans in a loop; and therefore, it should be adapted to be operationally relevant along with humans.

Rawas (2024) hails use of AI in medicine, transportation, finance and economics, fraud detection, economic forecasting, changing dynamics of global markets, education and tutoring system. But he still questions the “black box” system of decision making and thus argues that explanatory mechanisms of decision making are necessities in the mechanism. This demonstrated the balanced view in the research, but the reader might take only the disadvantages sides, leading to amplified skepticism.

When the chat bot was deployed, it did not mention transparent thinking near the prompt field. In its evolutionary journey, it started displaying some explaining statements such as “thinking”. These systems will be able to be fully transparent in future in thinking rationally and humanly. One of the grey literatures published in Poland discussed the similar question that there were misconceptions and hyperbolic fear about AI overshadowing the genuine cause of AI development and deployment (Abramowicz, 2024).

Various studies were conducted about the adverse effects of AI and its anxiety (Ciriello, 2024; Kim et al., 2025). It seems that most AI concerns were sourced from an ethical perspective. It was not unnatural to argue the amount of good from the perspective of ethical AI. However, when studies were conducted monolithically separating humans from technology, these

misconceptions arose and spread. When human behaviors and decisions are in the center of AI systems, the skepticism would soon disappear.

Now let us consider that AI creates a threat to education. In simpler terms, AI may replace teachers, but intelligent teachers remain untouched. A scholar conducted a study to investigate if AI was a threat to education. He marked ten myths about AI in his study, the prominent being threat to schools (Giray, 2024). He identified, however, AI powered systems, on the other hand, assisted in giving exams, creating quizzes and evaluating students. This aligns with the literature of AI in language and testing business. Skepticism and misconceptions created “AI anxiety” over new users leading to refraining from it due to fear (Monteith et al., 2023; Brauner et al., 2023). General public perception of AI is generated from their own naivety and AI owners' inability to spread the brighter concern. Overall, mitigating these misconceptions, AI governance has already been started by Organizations for Economic Cooperation and Development (OECD) in Europe (Schmitt, 2022) and thus 72 countries from around the world participated in formulating their AI governance policies according to the OECD website.

An AI index report published by Cornell university indicated that the use of AI increased to 78% in 2024 than 55% in 2023 (Maslej et al., 2025). The report suggested that the global investment in AI by the end of 2025 would be \$244 billion and will sharply rise by 2030. This indicates the magnitude of exploitation of AI in global business is higher than before. Out of 359 million companies in the world, 78% used AI components partially or fully in their business model (Kumar, 2025). 45 % of companies used AI systems in at least three business functions and 63% of companies used two business functions (Alexandrea, 2025b). The most common areas where companies use AI are marketing, sales, and service operations. One of the AI news sites (Sventeckis, 2025) reports that 39 % portfolio companies prioritized AI tools in their company and 30 % companies used AI for customer-facing chatbots. IT professionals reported that AI helped them to save time in programming the automated task which was previously completed using a batch processing system. Research showed that the generative AI model does not only automate the existing task but also transforms the business landscape (Singh et al., 2024).

The past three decades have yielded tons of structured data in the warehouses. In addition to this, social media data was streamed in a high volume and variety. To get insight from big data, the conventional computing system remained slow and did not suffice. As a result, the evolution of AI was inevitable. If AI use is guided by ethical considerations and critical oversight, no harm would be expected from AI. Instead of amplifying the unsupported fear, research indicated that AI systems contributed to tangible improvement on operational automation, customer engagement, decision making saving time and cost. This evidence-based standpoint outweighs the false narrative about AI.

## **5. Conclusion**

This study explored how Artificial Intelligence (AI) contributed to a wide variety of modern businesses. A comprehensive study shows that AI outweighs skepticism. The OECD (Organization for Economic Co-Operation and Development) website mentioned the five AI principal initiatives. The most prominent and quantifiable benefit of AI adoption has been realized by business organizations in terms of its operational efficiency. Accuracy and speed issues have been improved by research and development. Had it not been beneficial for modern business, the government and large corporations would not have spent millions of dollars on it.

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