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Unlocking artificial intelligence for strategic market development and business growth: Innovations, opportunities, and future directions

DFahim Hossain¹, DG. M Selim Ahmed², Shree Pritom Paul Shuvo³, Abeda Najmin Kona⁴, Kona⁴,

¹Montclair State University, New Jersey, United States; fahimhossainlak@gmail.com (F.H.).

²Department of Business Administration, Shaikh Burhanuddin Post Graduate College, Dhaka, Bangladesh; selimahmed 1993@gmail.com (G.M.S.A.).

^{3,4,5,6*}Department of Management Information Systems, Begum Rokeya University, Rangpur, Rangpur-5404, Rangpur, Bangladesh; pritom0811@gmail.com (S.P.P.S.) abedanajmin@gmail.com (A.N.K.) mis12122003brur@gmail.com (M.U.H.R.) mdfisan@gmail.com (F.S.).

Abstract: This study explores the role of Artificial Intelligence (AI) in strategic market development and business growth. It aims to examine how AI innovations create new opportunities, enhance operational efficiencies, and drive competitive advantages for businesses across various sectors. This study relies significantly on previously published literature and secondary data sourced from esteemed academic databases, including Web of Science, SCOPUS, Google Scholar, and Research gate. Initially, we collected a dataset of 300 papers spanning the period from January 2020 to 2024. After a rigorous screening process, we narrowed it down to 65 papers to derive the desired insights and produce robust results. AI is revolutionizing market strategies by enabling personalized marketing, optimizing supply chains, and improving decision-making through predictive analytics. Companies are leveraging AI for automating customer service, enhancing product development, and discovering new business models. The study also highlights AI's potential in facilitating global market expansion and localized product offerings. The findings suggest that AI is central to enhancing business efficiency, innovation, and customer satisfaction. However, ethical concerns such as data privacy, algorithmic bias, and regulatory challenges remain significant barriers to AI adoption. Companies must balance innovation with responsible AI use to ensure long-term success and sustainability. Businesses adopting AI technologies can gain a competitive edge by improving operational efficiency and creating more tailored customer experiences. However, they must invest in AI transparency, employee reskilling, and regulatory compliance to mitigate risks associated with AI deployment. Further research is needed to explore the ethical and societal impacts of AI, including its role in job displacement and its potential for environmental sustainability. The integration of AI with emerging technologies like blockchain and IoT also offers exciting opportunities for future growth. Organizations should invest in AI solutions aligned with business objectives, ensuring ethical practices and continuous innovation to maintain a competitive edge in the evolving market landscape.

Keywords: AI-driven decision making, Artificial intelligence, Business growth and acceleration, Customer personalization, Market development, Predictive analytics, Strategic innovation.

1. Introduction

According to Manoharan et al. (2024), Artificial Intelligence (AI) offers countless potential for businesses to grow sustainably in the modern era of technology. Artificial Intelligence is a relatively new phrase in technology that helps businesses create strategies to stay competitive (Sullivan & Fosso Wamba, 2024). With the use of tools like big data analysis, machine learning, natural language processing, predictive analysis, and others, it helps businesses grow and expand more quickly (Paramesha et al., 2024). High performance artificial intelligence speeds up the growth of businesses on a big scale. Scholars are drawn to it because of its revolutionary effects on the acceleration and business growth. A study found that about 63% of businesses surveyed, who implemented AI for cost reduction and resource optimization, witnessed a revenue boost and increased ROI (Peretz-Andersson et al., 2024). Technological advancements are influencing company tactics, particularly in marketing initiatives, and altering consumer behaviour. As a result, AI for marketing is now widely used in most industries (Hossain et al., 2024). Research in the intersection of artificial intelligence (AI) and marketing has received increased attention in recent years (Manoharan et al., 2024), as calls for research have encouraged deeper investigation of AI-related subjects and their roles in marketing (Bhuiyan et al., 2024).

Around the world, artificial intelligence is changing traditional businesses (Keegan et al., 2024). The AI is currently performing the tasks that a man once completed. AI has played a more dynamic role in recent years in helping businesses create new markets and drive growth (Sullivan & Fosso Wamba, 2024). Big data and AI-has led to a paradigm shift in business intelligence, traditionally focused on data collection and interpretation for decision making (Zong & Guan, 2024). The process of value creation is one of the main segments of business model innovation (BMI) that is clearly connected to AI through its ability to solve complex problems based on large data-sets (Roth-Dietrich & Gröschel, 2024). AI can be integrated into a wide range of industries, but its applications are practically endless (Rashid & Kausik, 2024).

According to Hashem (2024), AI adoption, innovation capabilities encompass knowledge, organisational routines, processes related to the collection, aggregation, analytics, and application of data aimed at automating business processes, gaining insights, and collaborating with internal and external organisational members (Bhuiyan et al., 2024). The Department of Energy has been searching for ways to help expand the use of artificial intelligence to lead to the acceleration of discoveries (Rahman et al., 2024). AI can be a general-purpose technology that generates growth through increased productivity and product innovation across a wide range of sectors (Babina et al., 2024). Although AI is being applied to strategic marketing decision making, the writers are unable to access the data because it is sensitive to business interests (Kumar & Rani, 2024). Breakthroughs in product creation driven by AI, with a focus on how machine learning algorithms may speed up ideation, prototyping, and personalization (Ogundipe et al., 2024).

AI is definitely something to think about, and while it is currently a buzz in the tech sector, it will soon become a new phenomenon (Werbos, 2024). To stay ahead of the curve, businesses are incorporating AI into their systems that have the power to revolutionise companies in the future (Aldoseri et al., 2024). AI technology is benefiting industries such as finance, healthcare, manufacturing, and retail outlets (Rashid & Kausik, 2024). Adopting AI allows businesses to offer personalised user experiences to customers and helps financial institutions detect fraud, automate trade, and offer individualised banking services (Faraji et al., 2024). AI can help the company better understand its customers and provide them with messages that are tailored to them (Ogundipe et al., 2024). Despite all the endless possibilities of AI, lots of businesses face problems keeping up with the new technology (Chabani, 2024). There are some cons related to AI implementation like data privacy concerns, cost of implementation, integration with existing systems (Dasi et al., 2024).

Additionally, our research will be presented in a way that practitioners can use to better understand the potential and challenges of using AI to transform businesses in relation to market development and growth through strategic innovation (Kaggwa et al., 2024). The framework functions as a guide that may be followed when implementing AI. Our findings will also be utilised to point out gaps in the literature and offer suggestions for new directions for investigation (Bhuiyan et al., 2024).

AI is a ground-breaking technology that is always evolving (Karulkar et al., 2025). AI will also keep improving marketing analytics such as Deep learning models, hyper personalization, autonomous marketing, and other technologies will all be more sophisticated, precise, and useful (Singh & Kaunert, 2024). This paper mainly focuses on how to develop a market development plan with the help of artificial intelligence. Despite the advancements of AI integration in businesses, there is much more need for longterm deployment of AI on the organisation culture, workforce understanding, and the evolving market. AI is a revolutionary thing, there are more areas to discover, and understanding its impact can give our business practises a new dimension (Aldoseri et al., 2024). This technology has opportunities as well as challenges, organisations can study more to harness the full potential of AI technologies to achieve sustainable growth and dynamic market environments (Keegan et al., 2024). This study aims to understand market development through strategic innovation and business growth using artificial intelligence and modern technology (Bhuiyan et al., 2024). Artificial intelligence in business acceleration and growth there are many kinds of goals from market development to strategic innovation (Hossen, 2024). While existing studies have analysed the immediate benefits of AI in business, there is a lack of longitudinal research examining AI's sustained impact on market development over time (Hossen et al., 2024). According to Keegan et al. (2024), AI adoption in market strategies is promising, but long-term effects on market expansion remain underexplored. Understanding how AI influences growth beyond the initial phases of adoption is crucial for sustainable business strategies. Research on AI's impact is often generalised and lacks depth when it comes to specific industries. Studies typically offer broad insights but fail to address industry-specific dynamics in sectors like healthcare, finance, and retail (Faraji et al., 2024). Industry-focused research would provide more actionable insights for firms operating in these sectors, as different industries face unique challenges and opportunities in AI adoption (Kaggwa et al., 2024).

Although much has been written about AI's capabilities, limited attention has been paid to ethical and privacy challenges associated with AI in business settings (Ajiga, 2024). AI applications often involve extensive data collection, raising concerns over customer privacy and data security. This gap highlights the need for further research on establishing ethical frameworks and regulatory compliance in AI-driven market strategies (Chen, 2024). Many studies focus on AI applications in large corporations, while SMEs, which have different resource constraints and strategic needs, are underrepresented (Abrokwah-Larbi & Awuku-Larbi, 2024). SMEs have fewer resources for implementing complex AI solutions, yet they stand to benefit significantly from tailored AI applications. Exploring AI's impact on SMEs could yield valuable insights for promoting inclusive growth in business sectors (Bhuiyan et al., 2024).

Existing literature often highlights AI's potential but lacks concrete methodologies for quantifying its return on investment (ROI) in market development contexts (Hossen et al., 2025). While studies discuss current AI technologies, there is limited analysis of how emerging AI advancements—such as deep learning, neural networks, and reinforcement learning—may shape future market strategies (Beeram, 2024). Investigating these trends could provide a roadmap for organisations seeking to leverage cutting-edge AI tools for market expansion and competitive advantage (Durai et al., 2024). By addressing these gaps, this research aims to contribute to a more comprehensive understanding of AI's role in market development and business growth, particularly by exploring long-term impacts (Uddin & Hossain, 2010), industry-specific applications, and the balance of ethical and financial considerations in AI-driven strategies (Faraji, et al., 2024).

Based on the overall discussion in the document, the three research objectives are:

RO1: To identify how Artificial Intelligence (AI) contributes to sustainable business growth and market development strategies.

RO2: To forecast future trends and emerging AI technologies that will shape the evolution of market development and business expansion.

RO3: To examine the role of AI-driven strategic innovations in enhancing market development, business competitiveness, and long-term growth.

2. Literature Review

Artificial intelligence (AI) technology supports CRM services in marketing across multiple domains, including lead generation, social media management, market research, and customer experience customization.(Rashid & Kausik, 2024). Businesses are implementing AI-based systems; for instance, these systems perform well in diagnosing illnesses and doing repetitive tasks, facilitate driving a car (Agrawal et al. 2019), and carrying out human leads (Agrawal et al. 2019). Artificial Intelligence Technologies are rapidly being accepted by various industries (Bharadiya et al., 2023). In industries like manufacturing, where combining intelligent and interconnected systems is essential, machine learning plays a critical role in attaining resilience and efficiency (Ahmed & Miskon, 2020). AI is currently quite popular; it can boost business quality and change conventional business procedures (Kaggwa et al., 2024). AI aids in the comprehension of customer interaction, which offers a useful foundation for comprehending the effects of personalization on artificial intelligence.

In this era, where AI is now a sensation, it has the potential to transform traditional business practices and enhance the quality of business (Kaggwa et al., 2024). This review will focus on the recent studies and publications that examine the implementation of artificial intelligence in business growth, Business Innovation, and market expansion (Abrokwah-Larbi & Awuku-Larbi, 2023). Marketing has changed much in the past and will continue to change in the future (Elhajjar, 2024), so the application of AI in business will change as a result.

2.1. Ai in Business Growth and Acceleration

According to Paramesha et al. (2024), AI significantly alters and accelerates company growth which is capable of quickly analysing large amounts of data, providing useful insights into business circumstances. Market trends and predictive analytics are also a part of this process (D. I. Ajiga et al., 2024). Artificial intelligence (AI) expedites business by simplifying repetitive tasks like inventory management and customer care, saving time and human resources (Halid et al., 2024). With the aid of artificial intelligence, businesses may provide their clients more individualised service (Bhuiyan, 2024). By giving the correct service to the right clients, AI promotes business growth. Artificial intelligence (AI) tools can streamline company processes by automating production lines, cutting waste, and enhancing control quality (Shahin et al., 2024). By offering customers more individualised products and services, businesses can increase customer satisfaction and loyalty (Amajuoyi et al., 2024). AI has also accelerated strategic decision-making for businesses, helped them anticipate future risks and prepare for potential disruptions, reduced manual labour and error-prone processes, increased revenue, and decreased additional costs (Amajuoyi et al., 2024). Finally, AI has allowed businesses to react in real time to their markets by analysing massive amounts of data in real time, which has facilitated business growth (Badmus et al., 2024). AI gives businesses the ability to adapt to changing market conditions. AI pushes businesses to move toward data-driven business models, in which the strategy and product development are influenced by the data (Kaggwa et al., 2024).

2.2. Strategic Innovation in Business

According to Bhuiyan et al. (2024), AI innovates smart solutions that require significant changes to the industry's product and service offerings, such as voice assistance, Internet of Things technologies, and self-driving cars. Predictive analytics, business intelligence, and customer relationship management are just a few of the areas that AI-based software helps a firm with. AI can forecast when mechanics will need maintenance by analysing data, which can save downtime and expensive breakdowns (Ucar et al., 2024). RPA (robotic process automation) powered by AI lowers costs by automating repetitive operations for the business including data entry, invoice processing, and payroll (Abildtrup, 2024). AI is creating new business models, such as AI as a Service (AIaaS), platform-based economies, and business models based on subscription and consumption (Toorajipour et al., 2024). By recruiting employees based on their performance and workforce, AI also aids in the maintenance of human resources and talent (Bhuiyan, 2024). Employees benefit from AI-driven tools that automate repetitive activities (Adeyeri, 2024).

2.3. AI in Market Development

Market development is necessary for a company to expand. Another strategy that is mentioned is expanding products into new markets. The goal of market development is to increase sales of goods that customers want to buy (Khuan et al., 2024). AI helped to develop marketing by automating items, personalising services, and setting up autoresponders (Mira Mira, 2024). By studying real-time data, artificial intelligence (AI) aids businesses in comprehending market conditions and customer testing, thereby advancing the marketing process (Okeleke et al., 2024). Additionally, AI may create and develop new items that draw in more focused clients and boost sales. AI gives businesses accurate knowledge about the items' raw ingredients, which tangentially improves their marketing processes (Kedi et al., 2024). AI is capable of analysing surfing habits, past purchases, and customer preferences. Making decisions about customers and customization is aided by it, which enhances the marketing sectors (Potla & Pottla, 2024).

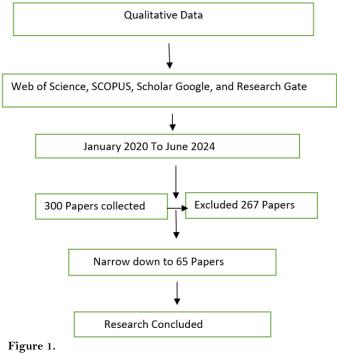
2.4. The Evaluation of Marketing Analysis Towards AI

Conventional marketing in the pre-digital era was entirely manual (Musaigwa, 2024). concentrating on consumer feedback, sales statistics, surveys, and basic data collection (Zhai et al., 2024). In order to understand clients' needs and help them become lifelong customers, marketers mostly depended on demographic data, such as gender, age, lifestyle, and region (Egorenkov, 2024). Between 1990 and 2010, the internet's blessing completely transformed traditional marketing (Blessing, 2024). Online customer activity can be monitored by marketers through tools such as Google Analytics and Social Media Insights. According to Bell et al. (2024), Large volumes of data were generated online, and complex techniques like A/B testing, segmentation, and multi-channel attribution were needed to turn that data into knowledge that could be used.

The process of generating data became increasingly crucial as it expanded while big data analysts entered the field of marketing (Rajan, 2024). They enable the market to examine enormous datasets from numerous sources. According to Hossain et al. (2024), predictive analytics for social media website traffic is growing in popularity and aiding marketers in making predictions about upcoming trends, shifting consumer behaviour, shifting markets, and improved campaigns. Currently, learning and AI technologies are being driven by marketing analytics (George et al., 2024). AI technology provides a range of instruments which is significantly anticipating customer behaviour, personalising information, automating tasks, and sentiment analysis in quizzes that were previously completed by hand (Halkiopoulos & Gkintoni, 2024). Nwosu et al. (2024), mention that the most often used instruments for market study and analytics are recommendations. Real-time data is being converted into information faster and more accurately than ever before thanks to machine learning and artificial intelligence technology (Ozkan-Okay et al., 2024).

3. Methodology

Artificial intelligence merging with existing technologies has effectively advanced business growth and acceleration (Plastino & Purdy, 2018). The purpose of this research is to identify, assess, and interpret all searches in the area of research gaps, objectives, and responses to the research questions. We seek to obtain a broad range of data when we begin our investigation with a data sourcing phase (Rahman et al., 2024). To obtain information regarding AI in corporate growth and acceleration, authors investigated SCOPUS, Web of Science, research gate and Google Scholar (Islam et al., 2024). It is rigorously guided and assessed using qualitative data (Faraji, et al., 2024). We also explore scholarly databases, white papers, industry reports, conference proceedings from 2020 to 2024. It creates a diversity of information on AI in business growth and acceleration (Coccia, 2024). Despite the fact that the title and abstract make it obvious that this is outside the purview of the review and can be disregarded (Hossain, 2024). The full text of the publication was reviewed in later cases when the study's purpose was unclear based on the title or abstract during this round of data gathering on artificial intelligence in company growth and acceleration (Coccia, 2024). 120 studies were selected from a total of 267 research based on a study of the titles and abstracts. Following a comprehensive review of the complete publications, 55 more studies were excluded. This means that the foundation for this research study was provided by a total of 65 original studies.



Data screening diagram.

4. Discussion

According to Kafka et al. (2024), Market development refers to strategies where businesses introduce existing products or services to a new market. This expansion can be involved in new geographical areas, different customer segments, or upselling to present customers (Bhuiyan & Akter, 2024). It is a strategic growth approach to business expansion that requires research, analysis, and planning where artificial intelligence can help business growth and accelerate market development (Usman et al., 2024). Market development involves four stages such as identifying target customers, research and analysis, decision making and robust plan (Guerola-Navarro et al., 2024).



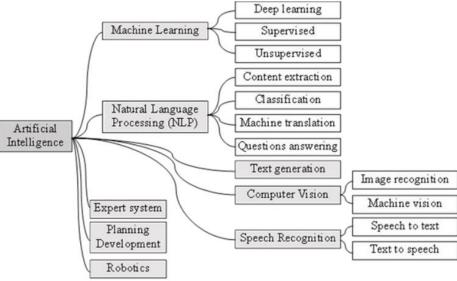
Edelweiss Applied Science and Technology ISSN: 2576-8484 Vol. 8, No. 6: 5825-5846, 2024 DOI: 10.55214/25768484.v8i6.3263 © 2024 by the authors; licensee Learning Gate The four stages of market development marketers have developed a couple strategies to introduce their existing products or services to the new markets (Bhuiyan, 2024). Market research and analysis, competitor identification and analysis, products and services adaptation, marketing and promotion, supply chain management, etc. Market research, analysis, and all of those market development-related works are tedious and time-consuming (Tistelgrén, 2024). In the world of digitalization and heavy competition, timing is very significant in any business decision where artificial intelligence can reduce workload and time in market development (Durai et al., 2024). If businesses can make decisions before their competitors, they can achieve significant market share in the marketplace where artificial intelligence has shown its worth in various sectors already (Kim, 2024).

Title	Description	Reference
Target	At this first stage, the market is defined and understood from	(Dasi et al.,
customers	various aspects such as size, demographic, and potential growth.	2024)
Research &	In the second stage, data is collected on customer's demands,	(Okeleke et
analysis	preferences, tests, and behaviours. This stage also analyses	al., 2024)
-	competition intensity, market availability, and potential growth.	
Decision	By understanding the cultural and legal environment, appropriate	(Zhai et al.,
making	price determination, promotion, advertising decision, and market	2024)
	entry are conducted.	
Robust plan	A comprehensive plan is made and determines the marketing	(Mahoney &
	networks and promotional media that serve best.	Tang, 2024)

 Table 1.

 Describing market development steps.

According to Faraji et al. (2024), artificial intelligence refers to computers' capability to accomplish robust tasks which is ordinarily associated with intelligent beings. Artificial intelligence also consists of various subsets such as machine learning, natural language processing (NPL), expert systems, planning development, and robotics where machine learning and natural language processing (NPL) also again have subsets (Faraji et al., 2024).





Ramifications of artificial intelligence.

Within all of those subsets of artificial intelligence, machine learning, natural language processing, expert systems (Akter et al., 2023), and planning development have significant effectiveness in business

Edelweiss Applied Science and Technology ISSN: 2576-8484 Vol. 8, No. 6: 5825-5846, 2024 DOI: 10.55214/25768484.v8i6.3263 © 2024 by the authors; licensee Learning Gate growth and acceleration of market development (Venkataramanan et al., 2024). The following sections will discuss how artificial intelligence with its subsets can enhance market development strategy which eventually gives businesses strategic growth and acceleration (Bhuiyan, 2017, 2019, 2023).

Title	Description	Reference
Artificial	Artificial intelligence denotes a computer's capacity to	(Lewis &
Intelligence	understand and reflect as a human which enables a	Sarkadi, 2024)
0	computer to act and think like a human by taking	
	information from its surroundings. Furthermore, it's a	
	combination of machine learning, natural language	
	processing (NLP), expert systems, plan development, and	
	robotics.	
Machine learning	Machine learning is a subsection of artificial intelligence.	(Manoharan et
0	Machine learning is able to figure out the meaning of full	al., 2024)
	information from scattered data.	
Natural language	Natural language processing (NPL) is a subfield of	(Beeram, 2024)
processing (NPL)	artificial intelligence that uses machine learning to allow	
	computers to recognise and generate human-like	
	language. It's a rule-based modelling of human language –	
	combined with machine learning, statistical modelling, and	
	deep learning.	
Expert system	Based on instructed knowledge, the "Expert system"	(Yang & Zhu,
	develops software that enables computers to perform	2024)
	sophisticated tasks. Expert system also known as	
	knowledge-based system.	

4.1. Market Research and Analysis

Table 2.

Market research and analysis is a planned exertion to fold information about target markets and customers (Uddin et al., 2024). It encompasses empathetic who they are and what they need. Meticulously study the new market to recognise its size, potential, and customer partialities. Classify the target audience and evaluate the demand for your products or services. Its methods cover both qualitative techniques such as emphasis groups, in-depth conferences, and ethnography, as well as quantitative procedures such as customer inspections, and analysis of secondary data (Bhuiyan, 2024). It contains social opinion investigation, and is the methodical assembly and clarification of information about persons or establishments using statistical and analytical approaches and methods of the practical social sciences to advance understanding or sustenance decision making (Marsh, 2024).On the other hand, Machine learning (ML) is an arena of study in artificial intelligence concerned with the expansion and study of statistical algorithms that can absorb from data and simplify to hidden data and thus execute tasks without obvious directions (Rahate et al., 2024). The structured and unstructured two methods of machine learning are capable of detecting and identifying potential market size as well as customers' partialities (Alam et al., 2022).

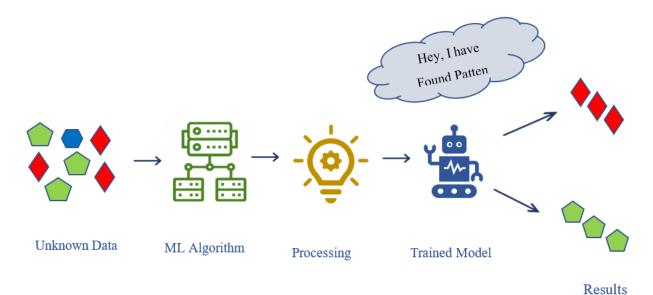


Figure 4.

Working mechanism of machine learning algorithms.

By accumulating various kinds of potential market insights, the algorithm can classify the potential market and can suggest which market has more potentiality than other markets (Khadjeh Nassirtoussi et al., 2014). (Ara et al., 2024). At first, the machine learning algorithm gathers a bunch of market information as input data including potential and non-potential market insights (Jiang & Jia, 2023). All kinds of information need to help the algorithm find patterns within information that eventually make it into classification (Jiang & Jia, 2023). Then, the algorithm will categorise all of that information into diverse modules. After processing those classifications, machine learning will train themselves to recognise which one is a potential market and which one has less potentiality (Khalil et al., 2021). One of the best aspects of machine learning and artificial intelligence is the learning and recognising process which will be conducted forever without human interference which will help the machine algorithm to tackle future customers' changed mindset and new market (Mehrotra, 2019). All of those advantages of artificial intelligence give strategic privilege in market development (Salim, 2020).

4.2. Identifying and Analysing the Competitors

It is crucial to identify business competitors and analyse their strengths and weaknesses in the new market (Oloruntosin Tolulope Joel & Vincent Ugochukwu Oguanobi, 2024). Identifying and analysing competitors will help businesses to create their position in market offerings effectively (Ochuba et al., 2024). Simultaneous integration of natural language processing (NPL) and machine learning can identify and analyse competitors effectively (Rane et al., 2024).

First, text input into the natural language processing (NPL). Text input can begin with various sources (Rane et al., 2024), such as competitors' websites, product or service descriptions, customers' opinions, customers' opinions from social media posts (Bhuiyan et al., 2023), and comments sections where customers and competitors give and provide opinions about the products and services (Malik & Bilal, 2024).



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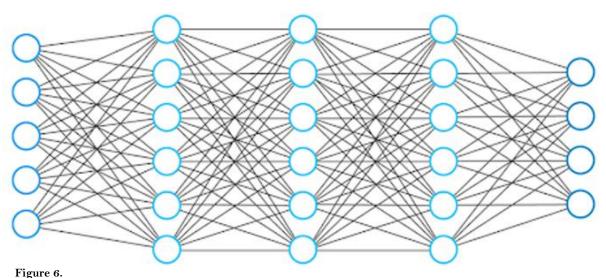
Integration of NPL and machine learning algorithms.

Then, Test processing and feature extraction where in text processing texts are split into smaller units and remove the unnecessary word that doesn't carry any significant meaning like: "the", "is", "and", in feature extraction, various kinds of the technique used to find tests frequency and similar words such as "bag of words", "TF-IDF", "Word Embeddings" and "BERT" (Sharma & Singh, 2023). After that, Parsing and Linguistic Analysis where grammatical category, structure, relation between words, entity identifying, and sentimental tone have been determined (Singh Rathore & Gautam, 2024). In the end, an artificial intelligent subset machine learning model needs to be used to classify competitors' information into various categories such as negative, positive, default, potential gap, strong holding in the market, and customer segment which later help to identify competitors and analysis their weakness and strength (BIANCO, 2024).

4.3. Marketing and Promotion

According to Urefe et al. (2024), Advance a targeted marketing and promotion strategy to form consciousness about your brand in the new market (Bhuiyan et al., 2023). In order to develop the best marketing and promoting alternatives, marketers need information about what people are thinking in the current market segment, and what is motivating and influencing them to buy (Milon et al., 2024). This information can be extracted through deep learning which is a subset of machine learning and also artificial intelligence (Ertel, 2024)

Deep learning algorithms attempt to lure comparable deductions as humans would by constantly analysing data with a given rational construction, which allows logical structure data to be mined from previous machine learning output (Usman et al., 2024). To attain this, deep learning uses a multi-layered assembly of algorithms called neural networks (Sethi & Kumar, 2024). The project of the neural network is built on the structure of the human brain (Zhu et al., 2024). We custom our brains to recognize patterns and categorise different types of information, we can teach neural networks to complete the same tasks on data (Woessner et al., 2024).



Multi-layer of neural network.

By arranging similar and dissimilar thoughts among the people of the target market segment, the neural network can produce the desired result of what will be the best-fit marketing alternative that will target market buy (Sarker et al., 2024). Then marketers can create their marketing and promoting strategy according to the given information of deep learning (Sarker et al., 2024).

4.4. Supply Chain Management

For new products and services efficient sale and distribution channels to ensure its long-term survival in the market (Trilaksono et al., 2024). In order to maintain smooth material procurement, production, sales, and distribution expert systems another subset of artificial intelligence is used in supply chain management (Khedr & S, 2024). According to (Nassif et al., 2024) "Expert systems", also known as "knowledge-based systems", that focuses on the development of software that elasticities computers the capability to execute responsibilities that have archaeologically been passed out by humans with the support of dedicated instruction and information in supply chain management (Bhuiyan et al., 2023). The mechanisms of an expert system that are drawn by are as follows: Information redirection, which is where information is enclosed, the interface engine, which pronounces the control strategy, and knowledge acquisition, which empowers the system to collect data and knowledge for the determination of problemsolving in supply chain management (Jr, 2024).

4.4.1. Business Growth and Acceleration

Besides market development, artificial intelligence also provides significant advanced tools and mechanisms to stay ahead of business competitors which eventually provide business acceleration and growth (Abrokwah-Larbi & Awuku-Larbi, 2024). Artificial intelligence supports corporate growth in quantitative coding by simplifying data processing, boosting the construction of complex algorithms, and optimising the decision-making process reducing the time and expense of manual data analysis by automating it (Malliaroudaki & Zoumas, 2024). An AI system efficiently distributes resources and maximises strategic innovation (Olutimehin et al., 2024). Artificial Intelligence (AI) facilitates the execution of repetitive tasks and routine tasks for businesses, including data entry, inventory management, personalization, customer support, and HR management (Paramesha et al., 2024).

AI automation can speed up processes without adding extra workers (Paudel, 2024). Businesses may now quickly and simply use automation systems to examine their data and make wise decisions (Bhuiyan et al., 2023; 2024). With the use of AI real-time data analysis processes, businesses and firms can also foresee changes in the market and optimise their business strategy (Paramesha et al., 2024). AI can analyse client data to recommend goods and services and customise offerings. It increases revenue and contributes to consumer happiness (Bhuiyan, 2024). AI helps businesses acquire new customers and increase conversion rates by delivering targeted communications to the correct audience at the right time. AI helps businesses design new products and services that meet changing market demands (Kedi et al., 2024). AI uses chatbots and virtual assistants to provide 24/7 customer support. AI optimises supply chain management, reduces waste, and guarantees on-time delivery (Shobhana, 2024). Customer satisfaction will rise as a result. Artificial intelligence can be used by businesses to handle their finance division (Rane et al., 2024). AI gives information on cash flow, expenditure trends, and investment prospects, enabling investors to make well-informed decisions (Jain, 2024).

4.4.2. AI Driven Quantitative Models

AI driven quantitative models are helpful with risk management, customer segments and personalization, enhancing predictive analysis, algorithm trading etc. (Hossain Faruk et al., 2022). AI enhanced quantitative models can identify specific market gaps for new product innovation and service (Abrokwah-Larbi & Awuku-Larbi, 2024). AI is driven through quantitative analysis in business growth and strategic innovation of market development by enabling businesses to leverage data, identify new opportunities and adapt to changing market conditions (Usman et al., 2024). Business experiments with and innovate new business models by using AI helps. Business through quantitative analysis leading to more successful market strategies and sustained growth (Black et al., 2024). Some of those mechanisms and tools are mentation here:

4.4.3. Customer Analysis

According to Agag et al. (2024) for a business, its customers are very important. To run a business, customer satisfaction is essential to make the business successful. And unsatisfied customers can break the big brand. Every business can understand this, so it is very important to analyse the customer base and prepare a strategy accordingly. Through which customer engagement increases and improves (Potla & Pottla, 2024). Before it was a long process but now Through AI; Company Service can create a medium that provides accurate data of customer feedback with its presence strategies for improved engagement can be created and implemented very quickly (Venkataramanan et al., 2024). At business Makes the customer centric due to which the company ultimately gets profit (Almestarihi et al., 2024).



Business acceleration and growth.

4.4.4. Improved Decision-Making

Based on many data analytics, AI can help support improved decision-making. AI can Analyse vast amounts of data and provide businesses data information for informed decision making (Paramesha et al., 2024). AI can analyse customer behaviour, preferences and feedback to help businesses tailor their products and services to meet specific needs (Bhuiyan, 2017).

4.4.5. Enhance Customer Service

AI is transforming business and how the company treats the customers and how they interact with their customers (Hossain, 2024; Milon, 2024). By using AI in business, companies can provide any curious question of customers, and they can easily service any time with their customers (Ferraro et al., 2024). Overall, it can easily be in the business sector any problem of business any answer of business topic and play a crucial role in business. Ai using virtual assistance can engage with customers in real time (Tula et al., 2024).

4.4.6. Personalization and Customer Experience

AI enhanced customer experience and relations with business (Bhuiyan, 2023). It enables businesses to provide customers with personalised marketing and product recommendations (Tula et al., 2024). It means customers' engagement, cross selling and up selling opportunities and revenue growth (Hynninen, 2024).

4.4.7. Targeted Policies Needed to Maximise Benefits and Minimise Harms

Artificial intelligence has made it easier for various business sectors in the modern revolution, including marketing, innovation, efficiency increases, personalization, and creating value for the client (Mehta et al., 2024). Even while artificial intelligence has many benefits, there are also areas where AI must be examined, including improper use, potential job displacement, ethical questions, data privacy

difficulties, and the possibility of increasing economic inequality (Marsh, 2024). Here are some policies to maximise benefits and minimise harms:

4.4.8. Privacy and Security

Security and data issues might occasionally arise for large farms or corporations. The accuracy and dependability of AI forecasts and insights can be significantly impacted by farms' struggles with insufficient, obsolete, or poor-quality data (Durga et al., 2024). A business's ability to grow is hampered by inaccurate data, which causes poor decision-making. Updating the data centre will assist in lessening the issue, and artificial intelligence (AI) can be used to identify ways to cut down on errors or poor-quality data (Durga et al., 2024). Through data trend analysis, AI systems can identify cyber-attacks and other cyber-threats. It might identify the hazard in your data and stop similar ones in the future (Nazir et al., 2024). Experts are needed by farms to protect their privacy and data, but they are in short supply.so the businesses are having trouble protecting their data (Gumelar, 2024). The sophisticated IT infrastructures and antiquated systems of typical farms make it difficult to integrate with AI technologies (Bobelin & Isah, 2024). Furthermore, AI development, machine learning, and data science are among the specialist talents needed.so it's getting harder to recruit and hire qualified workers (Hlongwane et al., 2024). Farms that lack data specialists and specialised staff are forced to rely on outside consultants or third-party solutions, which raises expenses, stifles innovation, and compromises privacy (Nwaobi, 2024). It is difficult to scale the impressive solutions in pilot programs with aid for the farms or business. There is a risk of cybersecurity and data privacy as well as a risk of cyberattack because farms occasionally generate lowquality data (Bhuiyan, 2019) that is stored in the main data centre and their artificial intelligence (AI) systems have to deal with this unqualified data (Zhang et al., 2024). Data loss is more likely when artificial intelligence (AI) is used to detect cyberattacks, even though there's a chance it won't function entirely. Updates to cybersecurity systems should be made on a regular basis by the farms to prevent data loss and hacking (Dodiya et al., 2023). Farmers and other businesses run the risk of losing their consumers' trust and data if the government doesn't enforce strict data protection rules like the General Data Protection Regulation (GDPR) (Bhuiyan, 2023).

4.4.9. Ethical and Regulatory Concerns

AI bases all its decisions only on the data that farms supply. Deep learning algorithms and black box technology are used in decision-making. Because of this, the decision-making process is unclear (Rane et al., 2024). Users and stakeholders may become less trusting of one another as a result. Additionally, it brings up moral issues like prejudice, discrimination, and privacy (Kumar & Suthar, 2024). Ethical errors reduce the favourable effects on business outcomes by causing harm to one's reputation, legal repercussions, and loss of confidence (Kumar & Suthar, 2024). Companies need to handle difficulties in several industries, such as finance, personalization, and customer service (Milon, 2024). However, uncontrolled AI systems are also capable of enacting unethical policies and maintaining prejudices (Amin et al., 2024). The government should set up AI governance to guarantee the ethical application of AI. The businesses or firms ought to establish ethics boards which will regulate the ethical terms of the business regularly (Blessing, 2024).

4.4.10. Cost and Investment to Implement AI

Technology implementation is expensive and more challenging for small and medium-sized businesses (SMEs), farms, and other organisations since it necessitates large investments in personnel, infrastructure, and expertise to run the best ai systems (Chen, 2024). Utilising AI-based overviewing of returns on investment is also challenging for farms with limited funding. It is both expensive and a waste of time (Mana et al., 2024).

4.4.11. Sustainability and Environmental Impact

AI is consuming more energy every day. It is detrimental to the human body. Artificial intelligence (AI) technology uses a variety of technical jargon, such as machine learning models (Hossain et al., 2024), deep learning, and enormous computational resources (Masum et al., 2024), all of which increase energy

consumption (Sawon et al., 2024). Policies for the development of sustainable AI, such as those pertaining to energy efficiency, should be established by the government (Ibekwe et al., 2024). Companies should use green AI techniques to reduce their influence on the environment (Bolón-Canedo et al., 2024).

5. Conclusion

According to Rane et al. (2024) day by day artificial intelligence has a big impact on business growth and market development by analysing vast amounts of data. Also, AI improves customer gratification and lessens the workload in human customer service and better customer engagement in the business (Kedi et al., 2024). AI helps in business growth through data sources to inspire new product design and business models (Madanaguli et al., 2024). AI can provide higher level tasks that can be easy to businessmen and customers can clear about any product easily (Rane et al., 2024). Modern day AI is essential for business to adjust demand for the market and enhance relationships with customers (Ahmed, 2024). There are many advantages to business these days because this advantage is possible by using artificial intelligence. Product innovation and increased product offering and market development through AI investing (Babina et al., 2024). Using AI, a company to accumulate as much data about sales in recent years as possible, this collection of data is called a data set (Bhuiyan, 2024; Chiarello et al., 2024). If artificial intelligence is accurate for business, companies study consumer needs and test the new strategic innovation to generate a personalised experience for any customers (Rane et al., 2024). Every business industry is benefiting more from AI. AI increases strategy innovation, strengthens their competitive advantage and creates a more dynamic and digital marketplace (Sullivan & Fosso Wamba, 2024). This approach is currently being used by the corporate sector to enable personalised consumer experiences and improve decision making using data analytics (Ochuba et al., 2024). By innovating new products and services and streamlining supply networks, it is improving prospects for new markets. AI offers a lot of benefits to modern companies overall (Manoharan et al., 2024).

6. Recommendation

Companies need to integrate AI into their systems to stay ahead in this cutthroat industry. It will facilitate completing the chores (. Supply chain management, customer service powered by AI, and other predictive analytics can help firms expand sustainably (Saxena et al., 2023). Businesses really do need to invest in this area of AI. Since every company is different, companies should consider their needs when it comes to the research and development process (Hasan et al., 2024). On the other hand, machines and other things will help to forecast and help businesses to develop their new market and will help with new inventions as well (Amiri et al., 2024).

7. Future Direction and Limitation

AI has emerged as a revolutionary phrase in our period. Businesses that integrate AI into their systems are more likely to get superior results. AI should be used by businesses to improve operational efficiency. These days, AI is probably still in its infancy and is developing daily. Thus, more comprehensive research is needed to make it feasible in all potential fields. Throughout this paper, we discuss artificial intelligence in market development and business growth and acceleration using AI. Despite examining how artificial intelligence can accelerate business growth and innovate market development, this paper has some limitations (Poli, 2024). Firstly, swift evolution of artificial intelligence may cause some of the literature to be outdated, affecting the significance of the conclusions (Amiri et al., 2024). Secondly, collection of papers from journals may be biassed, because positive publications are more likely to publish rather than negative ones (Afonso et al., 2024). Thirdly, the scope of this research is broad, covering numerous sources which could limit the depth of the paper. Moreover, previously published studies and secondary data can create gaps in understanding of artificial intelligence in market development (Mani, 2024).

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