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MASTER'S THESIS

**APPLICABILITY OF ARTIFICIAL INTELLIGENCE TOOLS TO
IMPROVE BUSINESS DEVELOPMENT**

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CONTENTS

LIST OF ABBREVIATIONS	4
LIST OF FIGURES	5
LIST OF TABLES.....	6
INTRODUCTION.....	7
1. THEORETICAL ASPECTS OF THE APPLICABILITY OF ARTIFICIAL INTELLIGENCE TOOLS TO IMPROVE BUSINESS DEVELOPMENT.....	11
1.1 Concept of AI in business.....	11
1.2 AI tools in business development	16
1.3 Interconnection between applicability of AI tools and business development	19
2. EMPIRICAL RESEARCH LEVEL OF THE APPLICABILITY OF ARTIFICIAL INTELLIGENCE TOOLS TO IMPROVE BUSINESS DEVELOPMENT.....	25
2.1 Research on the links between applicability of AI tools and business development.....	25
2.2 Research Model of Applicability of AI Tools That Improves Business	32
3. EMPIRICAL RESEARCH OF THE APPLICABILITY OF ARTIFICIAL INTELLIGENCE TOOLS TO IMPROVE BUSINESS DEVELOPMENT.....	36
3.1 Research methodology.....	36
3.2 Research data analysis and discussion of results.....	39
3.3 Evaluation of research results	46
CONCLUSIONS	49
RECOMMENDATIONS.....	51
S A N T R A U K A	53
REFERENCES.....	55
APPENDIX 1.....	64

LIST OF ABBREVIATIONS

AI – Artificial Intelligence

NLP – Natural Language Processing

CRM – Customer Relationship Management

KPI – Key Performance Indicator

LLM – Large Language Models

LIST OF FIGURES

Figure 1. Theoretical model of applicability of AI tools to improve business development.....	22
Figure 2. Research Model of Applicability of AI Tools That Improves Businesses	34
Figure 3 Empirical research model of applicability of AI tools to improve business development with supported hypotheses and regression values.....	48

LIST OF TABLES

Table 1 Author's ideas on applicability of AI tools	14
Table 2 Summary of empirical research on AI tools and business development	30
Table 3 Structure of the research questionnaire.....	37
Table 4 Description of hypotheses according to the questionnaire.....	37
Table 5 Descriptive statistics of study variables	40
Table 6 Survey sample respondents' information	40
Table 7 Reliability of study variables	42
Table 8 Correlations of study variables.....	42
Table 9 Linear regression results: AI Tool Usability predicting Business Development Outcomes (H1)	43
Table 10 Moderated regression results: Organizational Readiness as moderator of AITU → BDO (H2)	44
Table 11a Regression results: Technological Infrastructure as predictor of AITU	44
Table 11b Regression results: Technological Infrastructure as predictor of BDO	44
Table 12 Mediation analysis results: Employee AI Literacy mediating OR → AITU (H4).....	45
Table 13 Summary of research hypothesis evaluation results.....	46

INTRODUCTION

Relevance of the topic. Everyone today knows that the process of running a business is far from what it used to be. The pace of everything is faster and as a result, the company needs to be quick on its move now the entry of AI a highly capable assistant that assesses the entire workflow, supporting businesses with their growth. AI aids companies across three broad areas: first, it helps them better understand their customer base, including behaviour patterns and purchasing intent; second, it automates repetitive and time-consuming tasks; and third, it identifies growth opportunities that might otherwise go unnoticed. Small stores use AI tools to foresee their peak hours, so they could fill up their products accordingly. Large retailers utilize that information to offer their customers promotions on items they really desire, rather than items they would never purchase. This data-driven approach instead of simply guessing what may or may not work has become very powerful.

Increasingly, businesses no longer require technical expertise to use AI, as more organizations are finding straightforward ways to work smarter rather than harder. Whether it is monitoring customer sentiment on social media or identifying optimal times for sales outreach, AI enables businesses to move from guessing to data-driven decisions. The process has become more accessible a simple prompt to an AI tool yield results almost immediately.

Level of problem investigation. This section reveals complex stages, in which humans still have numerous unexplored opportunities. It is only recently, however, that researchers have pointed to major deficiencies in our knowledge of the realities of how AI affects the way business operates. Research, from the basic to the advanced level, was done on three important areas which require further research. First, limitations of traditional business growth have been identified, especially in terms of how organizations can cope with continual innovation. Although these studies highlight the link between the ideal and the reality, they sometimes fail to provide solutions to traverse them. Second, extant research on AI capabilities has focused on singular things such as customer relationship management (Ledro, Nosella, & Vinelli, 2022) (Leelavathi, Philip, Madhusudhanan, Sony, & Mukthar, 2024) and prediction (Ghorban Tanhaei et al., 2024); (Okeleke, Ajiga, Folorunsho, & Ezeigweneme, 2024), rather than a comprehensive framework that enables business transformation. The most fertile research avenue comes from practical applications of AI in diverse sectors (Gupta & Khan, 2024); (Peruchini, da Silva, & Teixeira, 2024). These studies are both qualitative and quantitative and provide a full picture with surveys, case studies and expert interviews. Current research is most closely related to the long-term consequences of using AI and concrete business value

measurement (Rahmani et al., 2021). Although a significant amount of data is available directly after AI adoption which can measure improvements to daily operations, there are few analyses that measure the extended effects over a long period of time. Extensive studies are necessary to better understand AI as a force in how businesses transform and create sustainable competitive advantages.

Scientific problem: How does applicability of Artificial Intelligence tools help to improve business development?

Object of the thesis: Applicability of Artificial Intelligence tools to improve business development.

Aim of the thesis: To investigate the applicability of Artificial Intelligence tools that improve business development.

Objectives of the thesis:

1. To explore the concept of AI tools in business.
2. To identify key AI tools used in business development.
3. To examine the relationship between applicability of AI tools and business development opportunities by presenting a theoretical model.
4. To evaluate empirical studies on the connection between business development outcomes in various sectors and the applicability of AI tools.
5. To create a research model with hypotheses to examine the variables influencing the suitability of AI tools for business development.
6. To perform an empirical evaluation based on hypotheses of the research model of the applicability of AI tools to improve business development.

Thesis and research methods. The analysis of the theoretical premises of applicability of AI tools to improve business development were performed by general scientific research methods: analysis of scientific literature, synthesis and classification. The empirical research level employs the use of a quantitative questionnaire survey method. An analytical framework comprising five major constructs was formulated and related hypotheses were created using an amalgamation of empirical results from market research, financial effect surveys, and ongoing studies. The collected data were analysed using IBM SPSS Statistics 27.0 to investigate the applicability of AI tools to improve business development and also evaluate hypotheses.

Structure of the thesis. The first chapter “THEORETICAL ASPECTS OF APPLICABILITY OF ARTIFICIAL INTELLIGENCE TOOLS TO IMPROVE BUSINESS

DEVELOPMENT” discusses the usage of AI tools in businesses, more specifically it describes what kinds of AI tools are currently available in businesses, gives the cumulative ideas of different scientific authors about applicability of AI tools to improve business development and finally provides a theoretical model developed by analysing all the subchapters of our theoretical aspects.

The second chapter “EMPIRICAL RESEARCH LEVEL OF THE APPLICABILITY OF ARTIFICIAL INTELLIGENCE TOOLS TO IMPROVE BUSINESS DEVELOPMENT” reviews empirical research on (AI) instruments and business development, more specifically it examines the effects of AI on business expansion in various industries, looks at corporate and scientific factors that influence the adoption of AI and develops a research model with hypotheses.

The third chapter “EMPIRICAL RESEARCH LEVEL OF THE APPLICABILITY OF ARTIFICIAL INTELLIGENCE TOOLS TO IMPROVE BUSINESS DEVELOPMENT” discusses the research methodology, analysis of the empirical research data, and compares it with the findings of the second chapter and presents the results of applicability of AI tools to improve business development.

Literature used in the thesis. The literature used in the theoretical part of this master’s thesis is drawn from research done by foreign authors related to applicability of AI tools, how it is used in businesses and overall, how it impacts the business expansion. The main references are from (Brynjolfsson & McAfee 2017; Venkatesh 2022; Hung & Sun 2020; Bawack, Wamba, Carillo, & Akter 2022).

The theoretical significance of the thesis:

- It highlights the existing gap in the research regarding the long-term impact of AI in business which has not been studied that much; moreover, the theoretical model links AI potential (like market intelligence, productivity, tools, business growth etc.).
- New areas like emotional AI, AI in predictive analysis, competitive analysis are also analysed that are still in development stages.
- The research shows how AI supports rather than replaces human decision making, emphasising augmentation over automation, which is a growing theoretical perspective.
- By including discussions on privacy, bias and regulation (e.g., GDPR, CCPA), it contributes to the theoretical discussion on responsible AI use in business.

- It shows the theoretical importance of real time data analysis and decision making enabled by AI, a critical area in digital business transformation theory.
- The thesis contributes to the theoretical exploration of large language models such as ChatGPT, Gemini etc. and their uses in business environment.

The practical significance of the thesis:

- A customized survey was built with the results of an extensive literature review, designed to assess the impact of AI tools on the first five areas of business development: market research, lead generation, marketing, sales prediction, and competition research. With the use of IBM SPSS Statistics 27.0, the survey was validated, ensuring its usefulness for businesses and researchers to understand the level of impact AI tool adoption has on businesses. This survey is fully scalable.
- For those organizations growing or just beginning AI adoption, the survey will allow for an initial evaluation on the prioritization of certain AI tools. The resources that will allow for the greatest impact to business development will be clear after the areas of AI adoption that will have the greatest effect on business have been defined.
- A practical analysis was conducted for the five areas of AI applicability in business development. For these five areas, empirical hypothesis testing was conducted to assess the areas that have the most impact on business growth. These results allow for the prioritization of investments in areas such as sales and competitive position to help guide planning, the business AI adoption approach, and improvement of lead conversion and customer satisfaction.

Structure and scope of the thesis. The master's thesis comprises an introduction, three chapters, subchapters and a conclusion. The theoretical part of master's thesis has 67 pages, 13 tables, 3 figures. Furthermore, the thesis includes 1 appendix. The list of references consists of 102 references.

1. THEORETICAL ASPECTS OF THE APPLICABILITY OF ARTIFICIAL INTELLIGENCE TOOLS TO IMPROVE BUSINESS DEVELOPMENT

This chapter provides an overview of the concept of application of AI tools to improve business development and provides the AI tools that are currently being used in businesses like marketing, data mining, lead scoring etc. and finally provides the linking between AI and business development.

1.1 Concept of AI in business

Industries are being drastically changed by AI, which improves decision making, automates processes and makes strategies based on information provided (Patil, Patel, & Lawand, 2023). In advertising, surveys and interaction with clients, technologies like artificial intelligence, neural networks and forecasting are frequently utilized. AI has a special influence on business growth, assisting organizations in finding possibilities, customizing client interactions and optimizing workflows (Sarirete, Balfagih, Brahimi, Lytras, & Visvizi, 2022). However, issues like security of information, moral dilemmas, and a lack of skills continue to be major obstacles.

AI Tools in Market Research and Customer Understanding

Manufacturers can now analyse huge volumes of information, identify patterns and derive valuable results with little assistance from humans thanks to AI, which has completely transformed customer research tools such as Google Analytics with GA4, Tableau searches large databases to study customer behaviour and identify patterns that aid in better understanding the market and help to take good decisions (Ghorban Tanhaei et al., 2024; Gupta & Khan, 2024; Peruchini et al., 2024).

Predictive Analytics and Data Mining

Large databases can be processed by AI techniques such as ML (machine learning) and natural language processing (NLP) to show consumer patterns, market patterns and industry changes (Rahmani et al., 2021). Businesses can identify growth opportunities for expansion and negatives by using advanced statistical models, which can forecast upcoming market situations (Okeleke et al., 2024). Targeted market segmentation based on emotional, mental and cultural data is also made possible by these tools.

AI driven emotional analysis systems analyse critiques, polls and online user input to determine how people perceive a given company, product, or service (Angkasirisan, 2024; Kapoor & Verma, 2024). This is very helpful in forming advertisements and attempts to

produce new products. AI powered chatbots like Drift, Intercom, Tidio, ChatGPT API and virtual assistants give prospective clients immediate assistance by answering their questions and making suggestions for goods (Himeur et al., 2023). They gather useful client information that may be applied to focused approach and convert sales campaigns.

AI in Lead Generation and Scoring

An essential component of growing a company includes lead generation. Firms can focus on the appropriate consumers at the correct moment by using AI solutions to streamline and enhance that procedure (Jadli, Hamim, Hain, & Hasbaoui, 2022; Peddireddy & Peddireddy, 2023). Based on parameters like surfing habits, internet activity and online connections, AI-based systems including tools for scraping websites and AI chatbots can automatically find possible leads. These technologies increase the correctness of generating leads and do away with the necessity for human search Peddireddy, & Peddireddy, (2023). AI powered result systems assess and score customers according to their chance of becoming buyers using algorithms. AI technologies can give leads an amount by evaluating past data, which aids salespersons in setting outreach priorities. Opportunities can be tracked throughout the sales process by intelligence driven customer relationship management (CRM) platforms (like Einstein by Salesforce or HubSpot AI), which can provide information about which phases are probably to result in converting and which need more work in customer support jobs (Ledro et al., 2022; Leelavathi et al., 2024; Raj, Fredrick, Kurahattidesai, & Hegde, 2024). Such tool might even suggest appropriate next steps such as follow up emails, customized offers or product trials.

AI in Marketing

Companies can now develop highly targeted advertising strategies based on the choices, actions, and based on history of every single buyer thanks to AI. For instance, Netflix predicts viewer preferences and Amazon recommends products based on purchase history. These recommendation systems continuously analyse browsing and purchasing behaviour to anticipate future preferences. The systems learn from each interaction, whether the user is scrolling through products or selecting content to watch (Fayyaz et al., 2020). Not only do these systems analyse individual user history, but they also incorporate data on what similar customers prefer, enabling even more accurate predictions. Tools like ChatGPT, Jasper, Copy.ai, Gemini used for content writing and especially Canva that is used in making visual contents. Studies confirm that this personal touch not only enhances customer satisfaction but

also helps firms increase their sales in very significant proportion (Roy, & Dutta, 2022). AI operates in the background, optimising advertisements based on browsing behaviour. Machine learning sifts through collections of databases fed to them in search of that sweet spot a group of customers who will engage with what is being marketed to them. This makes sure that firms make full use of their marketing dollars and that their advertisements reach the correct audience (Solomon, Velmurugan, & Suresh, 2024).

Research shows that AI personalises the customer experience by analysing purchase history, email engagement, and website browsing behaviour. Studies demonstrate that when companies successfully implement this level of personalisation, customer engagement and purchase likelihood increase significantly (Behnam, Hollebeek, Clark, & Farabi, 2021; Sodiya, Umoga, Amoo, & Atadoga, 2024).

AI in Sales Forecasting and Predictions

AI powered prediction of sales, which is based on historical information, seasonal patterns and circumstances, gives companies a more realistic view of future revenue success (Ganesan, 2024; Reddy, Reddy, & Sahithi, 2021). Tools like Clari give insights about forecasting, inspection, deal tracking etc. and another famous tool Aviso and Gong.io help in revenue forecasting.

Analysing previous deals information, consumer buying structures and outside variables, machine learning algorithms can make predictions about future revenue trends (Amrutkar & Mahadik, 2022). These models can be utilized by organizations for prediction purposes, thereby managing the movement of goods at a more effective level, controlling inventories and setting right targets of sales. AI tools immediately provide data analysis and representations that track how well programs and salespeople do (Okuyelu & Adaji, 2024). Development opportunities are identified by the study of KPI (key performance indicator), for example, conversion ratios and the cost of customer purchasing.

AI in Competitive Analysis

A reason many businesses are trying to outperform the competition is through AI tools. This helps in the automation of the processes involved in monitoring competition to identify potential new competitors and tracking trends within the industry itself (Taherdoost & Madanchian, 2023). These common online scraping programs make use of AI in extracting data from competitor websites, product lines, pricing schemes, user evaluations among others (Ali, 2023). After generating the competitive analysis information, it can help in positioning in

market, product creation and pricing. News articles, industry reports, and social networking sites can be analysed for discovering new trends in the market or any invention by AI programs (Jain & Vanzara, 2023). The earlier a company identifies these patterns, the better it is for them to adapt their strategies and harness new opportunities.

Table 1

Author's ideas on applicability of AI tools

AI in market research	Gupta and khan, da silva ,Peruchini (2024)	Rahmani, Azhir (2021)	Kapoor and Verma (2024)	Himeur, Elnour (2023)	Importance
	Huge volume of information can now be analysed through AI.	AI techniques like machine learning can show consumer patterns, market patterns and industry changes.	AI driven Emotional analysis can be used to see how people view a given company, goods or service.	AI chatbots assist people by answering their questions or by making suggestions.	It helps to analyses the data from the consumers that helps companies to understand market better and saves the time and cost that it spends.
AI in lead generation	Jadli, Hamim (2022)	Peddireddy (2023)	Ledro, Nostella (2022)	-	Importance
	The company's growth depends upon lead generation.	Parameters like surfing habits, internet activity etc can find leads.	Opportunities can be tracked through systems like CRM (Customer Relationship Management) which convert lead to results.	-	It's essential for businesses because it enhances accuracy in finding the right customers and saves time and resources, for example chatbots 24/7 used in customer support, universities etc.

Table 1 (Continued)

AI in marketing	Fayyaz (2020)	Roy and Dutta (2022)	Solomon (2024)	Sodiya (2024) , Behnam (2021)	Importance
	Companies develop their marketing strategies based on customer history through AI tools.	Streaming Platforms like Netflix, Amazon etc looks your surfing habits and recommend movies, web series based on it.	AI running in your backgrounds of your system gives ads and suggestions based on your search habits.	Studies show that companies get a personal touch with their customers by collecting data through AI tools and making them engage in buying their products.	It helps in understanding market trends and helps in creating email campaigns, social media management, customer support jobs etc.
AI in sales forecasting and predictions	Ganesan (2024), Reddy (2021)	Amrutkar and Mahadik (2022)	Okuyelu (2024)	-	Importance
	AI prediction of sales gives companies a real view of their future revenue.	By analysing consumer buying pattern machines learning algorithms can predict future sales.	AI tools provide data analysis that tracks how well salespeople do.	-	It helps to identify patterns, predict future sales, sales planning etc which helps businesses, especially in corporates to improve their revenue and cost reduction.
AI in competitive analysis	Taherdoost and Madanchian (2023)	Ali (2023)	Jain and Vanzara (2023)	-	Importance
	AI tools help in automation of process and identifies new competitors.	Online scraping programs make use of AI in extracting data from competitor websites.	News articles, industry reports, and social networking sites can be analysed for discovering new trends in the market or any invention by AI programs.	-	It helps businesses to identify new opportunities and threats in real time by processing various sources.

Source: Created by the author

In **Table 1**, different views of authors are described which tells about the application of AI tools in business and its importance.

It can be said that by making it possible to analyse massive data sets to find user and industry structure, forecast changes, and spot development prospects, AI has completely changed customer study. Through AI-driven technologies like chatbots and virtual assistants,

it increases consumer contact, adjusts advertising programs, and strengthens behavioural research. AI-based software optimizes lead identity, ranks customers based on conversion potential, and provides actionable data on CRM tools, thus enhancing leads and sales processes by a great deal. The tools assist the marketers with efficient planning of work, improving efficiency, and various aspects of process streamlining. What makes this so powerful is that AI helps businesses create marketing that feels less like spam and more like helpful suggestions. Instead of giving everyone the same message, companies can now craft experiences that match what each customer cares about. Therefore, AI-driven projection of sales helps organizations to generate precise prediction based on historical data, seasonality and customer behaviour to manage their inventory and set realistic targets. AI sales strategies improve sales by finding growth opportunities in the sales process; by maximizing resource allocation using insight from KPIs and the advantage companies can have using AI-powered tools over competitors by automating the research for always keeping an eye on the current market situation and finding any new competition. It would help in scraping the internet for data research, providing significant insight into business expenses, product generation, and standing in the market with the help of AI to adequately adapt to new prospects and changes in no time.

1.2 AI tools in business development

A major change in mindset has occurred with the incorporation of AI into corporate processes, especially in company growth. As businesses aim for increased productivity, improved client interactions and long-term expansion, AI solutions provide previously unheard-of capacities for studying information, work automation and knowledge generation (Brynjolfsson, & McAfee, 2017). These advancements have the potential to significantly alter company growth, which includes everything from providing leads and market study to client monitoring and the formation of tactical alliances. Tools such as ChatGPT, Gemini, GPT Researcher, Claude.ai help in summarizing market reports, identifying patterns etc., that can be used in market intelligence.

Yet, many perspectives are used to assess the effect and usage of AI in business making. Divergent viewpoints on the meaning, use, advantages and challenges of these tools are provided by scholars, business strategists, and practitioners. Some highlight the possibilities of information driven choices and output (Hung & Sun, 2020). Others draw attention to important obstacles pertaining to employee modification, morals, expense and diversity (Chilunjika, 2024; Kshetri, Dwivedi, Davenport, & Panteli, 2024).

Although opinions differ, it is essential to define AI in a particular setting of business expansion. In general, it entails using tools like IBM Watson, Microsoft Power BI etc., to simulate mental processes like comprehension, reasoning and taking choices to improve business (Agrawal, Gans, & Goldfarb, 2018). Multiple publications highlight how AI can automate repetitive business processes (Acemoglu & Restrepo, (2018). This involves using bots to automate grading leads, marketing emails, arranging and first contact with customers. According to this perspective, AI serves mainly as a productivity enhancer, letting traditional business development specialists engage in more complex planning. Rather than merely automating jobs, AI is presented as an instrument that enhances human capabilities (Krause, 2025). Consequently, in business development, artificial intelligence tools help create customized marketing campaigns, uncover hidden collaboration possibilities, forecast client habits more accurately and offer broader views (Patra, Praharaj, Sudarshan, & Chhatoi, 2024). The capacity of AI to analyse enormous amounts of data for better choices has been the subject of extensive studies (Jain, 2023). This entails determining segments of the market, allocating resources as efficiently as possible and anticipating revenues using statistical analysis (Hamdan & Harraf, 2024). The application of artificial intelligence programs to examine past information and identify those leads that are probably to be converted (McNair, 2023). This enables organizations to successfully organize their work. Tools for customer relationship management (CRM) are progressively integrating AI, including artificial intelligence driven knowledge into client wellness, possible selling advantages and customized recommendations (e.g., Salesforce Einstein). The functions of various artificially intelligent CRM functions are frequently compared in studies (Hung & Sun, 2020). The analysis of emotions (the large-scale comprehension of buyer input), advanced bots for first client involvement and assistance are all powered by natural language processing (NLP) (Fanni, Fabi, Aghakhanyan, & Neri, 2023). Discussions typically occur among various NLP models (e.g., ChatGPT vs. Gemini vs. Claude) about their applicability to particular business activities like creating material or dealing with clients (Alsajri, Salman, & Steiti, 2024). Large volumes of unorganized information, such as headlines, tweets and business indexes, can be scanned and analysed by AI technologies to find emerging markets, rival activity and possible disturbances. Business development personnel can remain up to date on pertinent market studies and advances by using study databases such as Google Scholar, ResearchGate (Amara & Landry, 2012). AI computations use customer information to allow hyper targeting in advertising promotion, suggestions for goods or services, greatly increasing participation and profitability (Gill et al., 2022).

Large volumes of information are frequently needed by AI, which raises major worries regarding safety, confidentiality lapses and adherence to laws. A number of scholars have pointed out that maintaining equality, openness and responsibility in automated business decision making is an essential task because computations may acquire and magnify prejudice found in their initial learning information, which may result in biased results on topics like lead evaluation (Smith, Teerawanit, & Hamid, 2018). AI driven automation highlights worry regarding loss of jobs in recurring task-based employment. According to findings, education, upgrading and an emphasis on human beings-AI interaction instead of complete substitution are necessary. Resistance to adopting AI tools into existing processes and business environments remains a significant challenge (Venkatesh, 2022). Thorough preparation, managing transitions and guaranteeing AI compatibility are necessary for effective deployment. Despite their strength, artificial intelligence applications are not perfect. Mistakes can result from an excessive dependence on AI lacking human review, especially in scenarios that are complicated or unique. Verifying the accuracy of AI results is still essential (Zhai, Wibowo, & Li, 2024). The scientific community generally agrees that AI has a great deal of promise to improve business selection, interaction with customers and business development efficacy. While everyone agrees that automated work is a reality, certain reports place a great emphasis on how AI might enhance our skills, implying that it has greater revolutionary power than just improving performance (Winkler and Fürnkranz, 1998). Although business planning research is likely to address broad topics like statistical analysis or CRM and how they fit into business development, practical evaluations frequently concentrate on the characteristics and outcomes of particular LLMs (large language models) (Chang et al., 2024). A substantial amount of research advises on moral issues, privacy concerns, prejudice and social effects including job loss, despite the prospect of being highlighted.

In conclusion, AI is changing corporate growth by improving consumer involvement, taking decisions, and effectiveness. Even though its advantages are well known, issues like price, morals, and staff adaptation still exist. For the implementation of AI to be successful, proper planning is required. AI in company growth serves as an approach that supports human choices as well as an output booster. It gives firms greater understanding for focused expansion while streamlining repetitive procedures. In the end, AI promotes more intelligence, based on information growth tactics; with extensive statistics and natural language processing, AI tools in firm growth greatly improve concentration, client interaction, and market knowledge. These advancements expedite processes and customize the user involvement, and AI enables

companies to remain agile and successful in ever-changing marketplaces. In the end, AI has enormous potential to revolutionize business expansion, from more intelligent choice-making to customized client interaction, but it also presents serious obstacles that cannot be disregarded. Problems including software partiality, employment eviction, moral hazards, and data security emphasize the necessity of careful execution. Realizing AI's maximum capabilities while preserving beliefs and faith requires finding an equilibrium among creativity and accountability.

1.3 Interconnection between applicability of AI tools and business development

Business creation, planning, and implementation of expansion plans have undergone radical change because of the combination of AI and business development. Typically, business development includes studies, identifying possibilities, forming partnerships and designing products that provide profit over time. AI, which can be described as algorithms that can mimic cognitive tasks like thinking, memory, logic and choices, has brought about an important change where nearly every aspect of development is supported by massive statistical analysis, machine learning and automated tasks.

AI assets such as exclusive computations and unique collections of data are important assets that are uncommon, precious, unique and non-replaceable (Legenvre, Autio, & Hameri, 2025). Because competitors find it difficult to reproduce the intricate interaction of information, simulations and subject competence, businesses that create or obtain powerful AI skills maintain a comparative edge (Shrestha, Ben-Menahem, & Von Krogh, 2019; Teece, 2007). From a view of flexible abilities, AI enhances a business's capability to recognize possibilities and dangers (by observing information in an immediate fashion), capture benefit (by implementing specific plans quickly) and reorganize assets by implementing computerized procedures and ongoing learning cycles. These models collectively demonstrate that AI is a key promoter of flexible business development rather than solely an expense base. Gigabytes of structured data like revenue statistics and supply logistics indicators, and unstructured data like Twitter and Facebook opinion posts, is processed by AI algorithms to generate valuable information (Stone et al., 2020). This demonstrates that businesses utilizing automated statistical analyses can identify shifts in customer preferences and rival plans ahead of their competitors. Language recognition platforms, for instance, may identify potential hazards in regulations without the need for actual economists to sort via papers (Khalil, 1993). Artificial enhanced CRM technologies, including Microsoft Dynamics 365 AI and HubSpot CRM, execute lead evaluation, divide up the client base according to their lifetime value and mass

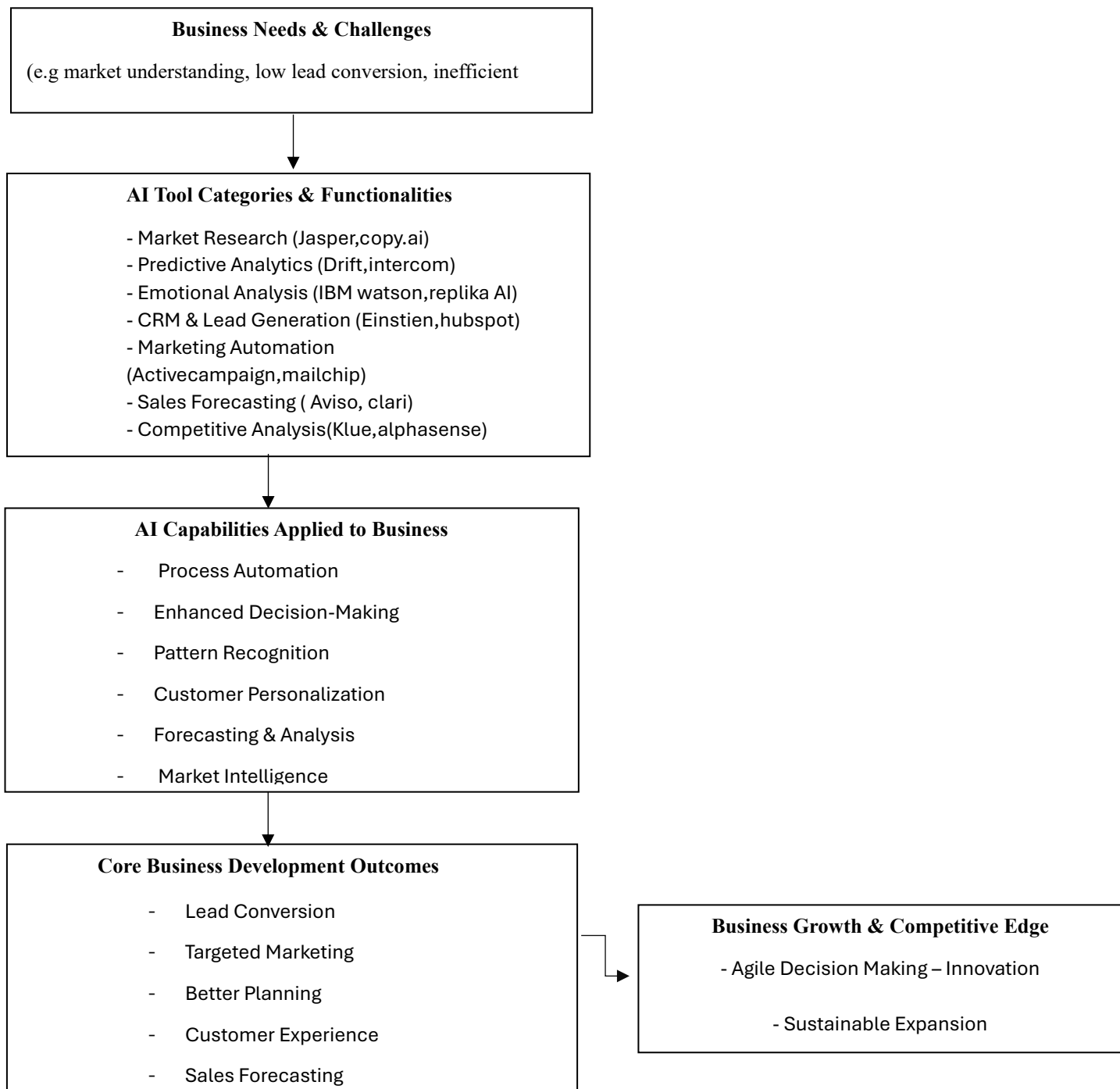
customize marketing. According to research conducted in B2B situations, automated CRM increases user retention by 10-19% and promotes earnings by 15-20% (Chatterjee et al. 2021). 24/7 assistance requests are handled by NLP-bots, which also collect comments and refer complicated problems to real people. However, security and moral issues are brought up by the large amount of individual information collected, leading to demand for privacy and transparent AI processes to preserve customer confidence (Kumar, Ramachandran, & Kumar, 2021).

If information is scarce or noisy, traditional forecasting algorithms suffer because they frequently presume linear correlations. To increase accuracy by 12–22%, artificial intelligence methods that combine multiple information feeds and catch irregular trends (Mahesh, 2020). Systems such as Google Cloud AI and Gemini Forecast remove obstacles for users who are not technical. Furthermore, according to (Brynjolfsson and McAfee 2017), better prediction speeds up loops of industry interruption, compelling established companies to embrace dynamic thinking and learning. By automating monotonous operations like filling out forms, approval of agreements and report preparation, AI agents and automated bots allow business development professionals to concentrate on connection nurturing. AI reduces expenses in distribution networks by as much as 35% by optimizing freight planning and stock restocking in immediate response (Cannas, Ciano, Saltalamacchia, & Secchi, 2024). According to (Bughin, Seong, Manyika, Chui, & Joshi 2018), automated efficiencies may raise the worldwide economy by \$15 trillion by 2032, but they warn that there is an actual danger of job loss and that human-centered innovation and training initiatives are necessary. Despite productivity and ideas, AI promotes free creativity by speeding up information exchange within organizations of partners and facilitating quick concept testing. Optimization engines powered by artificial intelligence pair possible partner suppliers, new businesses, and scientific organizations based on their complementary skills and goals (Alabi, 2024).

Companies face a challenging terrain of moral issues, regulatory obligations, and changing structure to integrate AI within their business development operations. To develop powerful designs, AI algorithms frequently need vast amounts of private and exclusive data, which increases the possibility of illegal possession, security lapses and failure with confidentiality laws. Businesses must provide data minimisation and the right to remove or amend private information upon demand in accordance with the GDPR (Barocas & Selbst, 2016) (EU General Data Protection Regulation). In the same way, customers have protections regarding the collection and sale of their personal information under the California Consumer

Privacy Act (CCPA). By allowing model development without centralizing data collection, confidentiality-preserving strategies like safe algorithm and distinct confidentiality can reduce hazards. In assessing leads, costs, or employment suggestions, AI algorithms may reinforce or magnify past biases encoded in training information, such as societal, sex, or cultural variations. Researchers support understandable AI techniques that give participants justifications for computational results, allowing them to identify and address discrimination (Sacharidis, 2024). Additionally, regulatory frameworks are changing: the U.S. Federal Trade Commission has indicated regulatory steps over misleading AI techniques (Chen, Luo, & Sra, 2025), and the upcoming EU AI Act will categorize artificial intelligence technologies by threat category and establish disclosure standards. Everyday life regulated jobs may be replaced by artificial intelligence, but this also raises the need for fresh expertise in organizing information, artificial intelligence scrutiny, and men-technology cooperation. Consequently, companies need to spend money on thorough upgrading and reskilling courses that combine vocational education like Python and data research with interpersonal abilities like complicated troubleshooting and moral reasoning. By incorporating checks and balances, AI judgements are examined by professionals prior to implementation, striking a balance between effectiveness and supervision. The advantages of AI must be clearly communicated, presentations must be made and outcome measurements must be aligned (e.g., by linking AI key performance indexes to business-development plans) in order to dispel doubt and anxiety. Shift supervision is essential; evaluations that address both technical accuracy and client happiness guarantee that artificial intelligence instruments develop in accordance with client demands and business goals (Kiron, & Schrage, 2019).

Based on the analysis of theoretical research, theoretical model is introduced in Figure1.



Source: Created by the author

Figure 1. Theoretical model of applicability of AI tools to improve business development

This model based on artificial intelligence restructuring methodology offers an orderly structure that moves from spotting fundamental business difficulties to obtaining advantages over rivals by means of incorporated artificial intelligence application tools. The model begins with fundamental business pain points including poor market understanding, low lead

conversion rates, and operational inefficiencies, which drive the selection of specific AI tools and capabilities. These constraints immediately guide the application of artificial intelligence solutions including market research tools, predictive analytics, emotional analysis, CRM systems, marketing automation, sales forecasting, competitive analysis tools – addressing particular business demands. Automation of processes, better choice-making, recognizing trends, customer personalizing, predicting evaluation, and market insight are among the practical commercial abilities that the AI tools convert to.

Better lead processing, targeted advertising, greater tactical preparation, enhanced client engagement and precise sales forecasting are just a few of the quantifiable results that these skills produce right away. These immediate outcomes lead to long-lasting business benefits through tactical advantages like enhanced market agility, sustainable growth, creativity, and speedy decision making. The interwoven feedback loops that provide rounds of steady enhancement are the model's strongest point. Improved choice-making is informed by market information, which improves market reactivity and produces greater market intelligence. The overall experience is enhanced by client specificity, which also generates more data for further customizing. Accurate forecasting generates additional information points for better predicting and allows for improved preparation. This produces a self-supporting ecosystem in which the capacities of AI grow gradually, proving that implementing AI successfully necessitates considering it as an entire architecture rather than a collection of separate tools. In the end, this leads to sustainable business growth through ongoing development and changes.

To sum up, AI has fundamentally altered how companies expand by enabling opportunity recognition, prompt action, and alter adaptation. Businesses can maintain their competitive edge with the correct data and resources. AI has evolved from an expense to a vital force behind wise, adaptable company expansion. AI enables companies to transform massive, unstructured data into ideas that can be used, enhancing consumer connections and making choices. While managing repetitive work anytime, systems like CRMs and NLP bots increase productivity, earnings and engagement. But moral issues with information safety and accountability are still quite important. Businesses need to be flexible and accountable as AI improves predicting and speeds up market changes. AI frees up people to concentrate on creative thinking and planning by streamlining repetitive processes and boosting productivity in domains like associate matching and transportation. Although it significantly boosts GDP, it also creates questions about moral usage of data and the loss of employment. Strong privacy

regulations such as the CCPA and GDPR require that personal information be handled carefully. Firms must make investments in security technology and modify their systems to fully utilize AI's potential. Artificial intelligence tools really improve business growth by enhancing market knowledge, choices, and efficacy. However, to avoid unfairness and abuse, moral use, legal adherence, and human monitoring are essential. The accountable incorporation of AI is ensured by investments in talent growth and open methods. In the end, AI acts as a stimulant for competitive and long-term company expansion.

2. EMPIRICAL RESEARCH LEVEL OF THE APPLICABILITY OF ARTIFICIAL INTELLIGENCE TOOLS TO IMPROVE BUSINESS DEVELOPMENT

There are several studies on AI tools that improve businesses conducted globally. However, research on applicability of AI tools in business development is still emerging. This chapter provides the study carried out by the various researchers concerning the applicability of AI tools in organizations, business development and factors affecting the application of AI tools in business development.

2.1 Research on the links between applicability of AI tools and business development

AI has come a long way in helping industries in changing the business model and strategies for various domains in the past decade. There has been an increase in the proportions of the studies focused on the way in which AI can help in the growth and sustainability of the business (Rubab, 2023). The use of artificial intelligence in business has now gone beyond novelty value to acquire the status of associate and partner, such is the advantage and value that comes with the employment of such tools. The data collected and analysed recently shed light on many aspects of the profit-making potential brought forward using AI. These overwhelming advantages in productivity, customer satisfaction and process efficiency give value to AI tools. The real worth of artificial intelligence tools can become clear when compared with the clear industry advantages and surplus value offered (Ahmed, & Ahmed, 2024).

Impact of AI Tools on Business Growth Metrics

A consistent pattern that has been documented and studied indicates that businesses that employ AI technologies seem to be reporting considerable gains in revenue and competitiveness in the market. In their longitudinal study by (Smith, & Choplin, 2023), who studied the activities of 500 medium to large enterprises in the manufacturing, retail and service industries, firms that employed AI-based predictive analytics and automation technologies in their processes recorded a revenue increase of 20% over the period of two years, along with a 15% improvement in the effectiveness of their operations. These gains were due to the allocation of AI resources to better decision making, resource allocation and customer development. In the same manner, (Wilson, Johnson, & Brown 2024) studied more than 300 companies that integrated AI automation in the development of products and in customer service. These companies experienced a reduction in operational costs of 15% to 25%, which was used to fund other more strategic projects such as R&D and market expansion. This

positive return reinforced the importance of AI as a basis for the long-term sustainability of the business.

Sectoral Variations in AI Applicability

Further business development studies that focus on specific industries also confirm the transformative role of AI on business development. In their study of e-commerce firms, (Bawack et al. 2022) found that using AI to improve customer segmentation and personalization yielded 30% growth in the addition and retention of customers, and long-term revenue growth. With marketing focused on customer engagement, predicting patterns of behaviour enabled an effective allocation of resources toward maximization of sales and conversion. In the field of manufacturing, (Kim, Kong, Lee, & Lee, 2022) found greater operational efficiencies garnered from the application of artificial intelligence in the management of supply chains. Demand estimation with artificial intelligence, coupled with automated control in logistics and diagnostic care in maintenance, lowered inventory carrying costs and production downtime (Nti, Adekoya, Weyori, & Nyarko-Boateng, 2022). The operational efficiencies yielded greater speed in market introduction of products and improved competition.

Gaining Competitive Advantage and Innovation While Improving Business Efficiency

Beyond the efficiency gains, the fostering of new businesses and innovation with the help of AI tools enhance competitiveness in the long run. “AI acts as a catalyst for the creation of new value propositions. Companies may experiment with new methods of service delivery, custom offerings, and flexible pricing. Such AI enhanced strategic agility proves crucial for coping with fast-changing market and consumer conditions,” notes (Guruprasad et al. 2024). A theoretical framework such as the Resource Based View (RBV) from (Ristyawan, 2020) underscores the AI capabilities as rare, valuable and hard to imitate, therefore, sustaining a competitive advantage. RBV proves useful in isolating the enduring benefits an organization would derive from investment in AI. Companies that incorporate AI in their corporate strategy gain a leap in the innovation trajectory, better customer experience and greater efficiency of internal processes.

Despite the good prospects, literature is rich in obstacles that limit harnessing the full benefits of AI tools. As (Maghfirah & Eni, 2024) point out, insufficient levels of technological infrastructure, for example the still wanting old legacy IT systems, stymie the smooth adoption of AI tools. Among the sample firms in their study, 40% reported such obstacles. To maximize

the utility of AI, clients must understand that cultural shifts will be necessary, as well as proper employee training workshops, which will be tailored around AI insights and analytics (Gupta, Leszkiewicz, Kumar, Bijmolt, & Potapov, 2020). Lack of vision and change are also described as being a construct that continues to diminish the use and implementation of AI tools within an organization's business processes. To build internal and external trust while benefiting from the AI tools and technologies, these challenges must be carefully addressed: the ethical apprehensions regarding data privacy, absence of bias, and the need for transparency (Larsson, & Heintz, 2020). The preparedness of the organization, leadership engagement, change management, and digital transformation strategies is seen as a critical factor that shapes the impact of AI on business outcomes (Bharadiya, 2023). More advanced and diversified AI tools integrated into business processes, greater employee engagement with AI tools, and more enhanced business development outcomes were exhibited by firms with higher readiness levels.

The Economic Impact and Attainable Productivity Gains

According to a McKinsey report from 2023, generative AI has the potential to create between \$2.6 to \$4.4 trillion annual economic value by transforming 16 business functions across the globe (Chui, Hazan, Roberts, Singla, & Smaje, 2023). McKinsey also suggests that if generative AI is used alongside other AI analytic technologies, the annual value created could reach as high as \$7.9 trillion. Such productivity gains reflect AI-tech enhanced productivity across a multitude of job functions, with special emphasis on marketing, sales, customer assistance, and even content generation (Arora, & Mittal, 2024). Marketing functions stand out as primary beneficiaries, where AI predicts generative content to enable scalable personalization, leading to productivity gains between 5 and 15% of the total marketing expenditure. Sales personnel report productivity gains of between 3 and 5% due to the use of AI in lead generation and nurturing through better automation of engagement systems and intelligent marketing (Chintalapati & Pandey, 2022).

Empirical Findings by Sector

The sectors where AI tools are applicable and their corresponding opportunities are very different. In retail and consumer packaged goods (CPG), customer care has gained from AI-driven chatbots and virtual assistants by automating simplistic questions and allowing people to concentrate on the complex issues which improve customer satisfaction and loyalty, which are both fundamental for revenue growth (Vijayakumar, 2023). Manufacturing sectors benefit

from AI in the form of predictive maintenance and supply chain management, with some firms reporting 20 to 30 percent savings on inventory costs and downtime. These interruptions speed up market penetration and decrease production waste, fostering sustainable development and profit at the same time. Emerging applications have cross-sector AI in management of operational resilience and new market expansion, which include fraud detection, AI-driven credit scoring and robot advisory services.

New Business Models and Innovation Enablement

The AI use is not restricted to the benefits of operations but also drives innovation and enables new business models. Studies show that companies that use AI for business model innovation spend less time developing new products and services and launch them to the market ahead of their competitors (Reim, Åström, & Eriksson, 2020). For instance, AI powered data synthesis and scenario modelling enables companies to quickly test and adjust strategies and offerings. Other companies use machine learning driven models and assets to disrupt the market and other players, underscoring the need for established companies to pursue AI use driven innovation (Essien, 2023).

Organizational and Human Issues Affecting the Use of Technology

No matter how far-reaching the promises of AI seem to be, the reality, based on numerous empirical studies, indicates the presence of gaps in skill sets, technological infrastructures, and organizational opposition. Over 50% of the AI transformation attempts fail to achieve the set goals due to poor training and a lack of adaptability in the organizational culture, highlighted in The Harvard Business Review (Cooper, 2024). AI use within a company also remains a critical success factor and in this regard employee upskilling in AI integration, in addition to change management, is imperative. The ability to foster an AI culture coupled with purposeful leadership increases adoption effectiveness resulting in better social value creation (A. Wodecki, H. Wodecki, & Harrison, 2019).

Expansion of AI Markets and Their Growing Diversification

According to reports, “The global AI market was worth around USD \$391 billion in 2025 and is forecasted to reach USD \$1.8 trillion by 2030”, expanding at a compound annual growth rate of 36% (Smirnov, & Lukyanov, 2019). This helps understand the rapid growth of AI’s market value, which is intended to be integrated into strategic and operational sophistication across various sectors which were previously untouched. Expansion is accelerated further by operationalization of AI’s core value which entails agile and suite forms

of automation across the economy. AI adoption among businesses in 2025 reached 72%, up from roughly 50% in the early 2020s (Nascimento & Meirelles, 2021). In the next three years, 67% of business executives are ready to allocate more funds toward the improvement of AI technology. Three out of four respondents affirm their belief that AI is a force that drives growth and value in respective organizations.

Shift in the Job Market and Productivity Enhancement Through AI

According to the World Economic Forum (WEF, 2025), disruption through AI automation and augmentation is predicted to eliminate 85 million jobs and create 97 million new jobs in the world in the next 5 years. This means around the globe, new jobs will be created, which is a positive development. This also shows how AI is expected to transform the content of jobs and work, rather than eliminate positions. This positive development will also require, however, reskilling the workforce to ensure automation and AI roles will be fulfilled. Focusing on a specific aspect of productivity, AI technologies drastically increase productivity through the automation of repetitive and tedious processes and instead allow employees to work on higher strategic value. The value of AI to total labour productivity is estimated to be 4.4 trillion dollars globally.

The Benefits of AI Across Different Business Functions

AI addresses advanced customer segmentation, content customization, campaign optimization, and lead generation through customer AI tools. AI induced recommendations on Netflix make nearly \$1 billion in profit yearly (de Zilwa, 2024). 64% of businesses admit that AI improves their customer relationship. AI augments planning and analysis (FP&A) by boosting the decision speed and accuracy through automated budgeting, forecasting and risk evaluation (Antwi, 2023). AI improves demand forecasting, logistics, and predictive maintenance, resulting in lower operational costs and better service. AI provides training modules, analytics, and self-service learning centres to streamline employee recruitment and engagement processes. The applicability of AI is shaped by both global and regional dynamics. In the US, foundational AI model development and private investment is concentrated. In Europe, the UK is at the forefront of practical AI deployments. China focuses on vertical integration with domestic sovereign AI models and public health and education in resource constrained settings is addressed by India. These spatial patterns affect the business competition and market dynamics driven by AI adoption. The budding incorporation of AI has brought about some new ethical and governance issues. The use of AI responsibly requires

robust governance systems which emphasize protecting data, fairness, transparency and accountability to reduce the risks of algorithmic discrimination and data misuse (Lyons, Hobbs, Rogers, & Clouse, 2023). The adoption of AI is also being slowed down by gaps in skills. Surveys indicate that the use of AI in the workplace is still quite low due to insufficient investment in training programs aimed at improving employees' understanding of AI, managing organizational change, and overcoming resistance to prepare the organization (Valtiner, Reidl 2021).

Table 2

Summary of empirical research on AI tools and business development

Authors	Year	Research Area	Research Methods	Hypotheses Investigated	Key Findings on AI Tools and Business Development
Wodecki et al.	2019	Organizational support in expatriate context	Cross-cultural organizational study	Business structures affect global AI implementation success	The improved business structures facilitate the success of AI implementation on a global level, highlighting organizational factors
Reim	2020	AI as an innovation catalyst	Qualitative study	AI facilitates rapid business model innovation	AI permits rapid development of new business models and new products which is vital for keeping the competitive edge
Bawack et al.	2022	AI in e-commerce	Empirical study of e-commerce firms	AI segmentation tools increase customer acquisition and retention	AI driven segmentation tools have increased both acquisition and retention rates by 30%, thus increasing profitability
Kim et al.	2022	AI in manufacturing supply chain	Case study analysis	Predictive maintenance through AI improves supply chain efficiency	Business growth and the whole supply chain has improved with the increase of predictive maintenance and efficiency

Table 2 (Continued)

Authors	Year	Research Area	Research Methods	Hypotheses Investigated	Key Findings on AI Tools and Business Development
Chui et al.	2023	Economic potential of generative AI	Economic impact analysis (McKinsey report)	Generative AI can add \$5-8 trillion annually through automation	AI has the potential to increase the global economy by \$5-8 trillion each year via automation in sales, marketing, and operations
Smith et al.	2023	Impact of AI predictive analytics	Longitudinal study	AI predictive analytics positively impacts revenue and operational productivity	AI tools have advanced revenue by 20% and improved operational productivity by 15%, resulting in increased competitiveness
Cooper	2024	Barriers and enablers of AI adoption	Survey research	Organizational readiness and employee AI literacy affect AI adoption success	Internal state of the business and the lack of AI literacy in employees have a lot of impact on AI adoption
Wilson et al.	2024	AI-driven automation effects	Quantitative analysis	AI automation reduces operational costs	Automation lowered operational expenses by 15-25% which freed funds available for further investment

Source: Created by the author

The above table shows that the tools of AI have become instrumental in driving business growth through efficiencies, diversification and innovation. For instance, (Smith and Choplin 2023) state that predictive analytics improved revenues by 20% and increased productivity by 15%, whereas (Wilson et al. 2024) states that automation lowers operational costs by 15–25%, which can in turn be used to reinvest in innovation and expansion of the market. (Bawack et al. 2022), in the same line, states that AI-driven customer segmentation in e-commerce has increased acquisition and retention by 30%, and (Kim et al. 2022) describes how predictive maintenance and forecasting improves the supply chain by reducing downtime and costs. AI is no longer positioned only to improve efficiencies. (Reim 2020) argues that it serves as a driver of innovation by advancing new business models and the development of

new products, whilst (Chui et al. 2023) estimate the value that can be added to the global economy by generative applications to be \$5-8 trillion. However, the same literature highlights that successful AI adoption is challenging. (Cooper 2024) cites the gaps in readiness at organizations and the AI literacy skills of employees as crucial obstacles, while (Lyons 2023) argues that the lack of credible governance structures which can sustain business and earn trust from stakeholders poses a serious obstacle. In addition, (Wodecki et al. (2019) demonstrate the importance of organizational support and cultural issues in global settings when it comes to implementing AI. Collectively, these studies illustrate how AI technology can be leveraged to improve and grow business performance and competitive advantage. However, these benefits can only be realized if certain internal, ethical and structural issues are resolved.

In summary, all the studies analysed in the previous sections show that AI tools in business development are used for workflow efficiency and productivity enhancement, as well as enabling innovation and maintaining competitiveness in the long run. In various industries, AI has been shown to transform business performance in measurable ways, including revenue growth, reduction in operating costs, better supply chain management, and improved engagement with customers. It is also shown that the benefits of AI are only possible with proper organizational readiness, employee skill set, ethical governance, and cultural support. From the previous reasoning, it appears that AI offers an unparalleled opportunity for firms to achieve sustainable growth and competitive advantage, albeit this is applicable only to the extent to which the firms can leverage the internal capabilities to deal with ethical, structural, and cultural obstacles.

2.2 Research Model of Applicability of AI Tools That Improves Business

This research starts from the information and the findings of the previous sections and aims to construct a model which explores the reasons and the impacts of the use of AI tools in the development of businesses. The conceptual model rests on the appreciation that the successful application of AI tools goes beyond the tools' technical capacity to include the organization's readiness, the surrounding technical infrastructure and the skill level of the organization's personnel. These elements systematically influence the effectiveness with which AI can improve particular business development results.

This model is based on five key findings:

AI Tool Usability (AITU): This construct assesses the extent to which AI tools are incorporated to serve business processes and the extent to which they are flexible and

dependable tools. A major connective is the role of Usability. Usability describes the ease with which workers harness the potential of AI in their working activities. The greater the ease of Usability, the higher the adoption of AI and the deeper the AI driven insights at the core of the organization's decision-making processes. Usability has several components such as ease of use, system reliability and personalization.

Organizational Readiness (OR): This construct assesses the extent to which a business's strategy, leadership, and culture are framed in a way to support the adoption of AI within the business. A higher degree of readiness would entail some order of culture change, investment in advocacy leadership, change advocacy, communication freedom and investment in upskilling the workforce. Empirical evidence underscores the role of a moderator within the context of return preparation; the firms that are active in the preparation of AI transformations improve the performance and innovation at an accelerated pace.

Technological Infrastructure (TI): TI comprises more than the presence of state-of-the-art software and hardware. It also includes secure real time data pipelines and cloud infrastructure as well as an agile IT support framework. Research suggests that with advanced infrastructure, organizations are capable of deploying AI solutions at scale with high reliability and increased speed. This greatly enhances the AI usability and improves business outcomes.

Employee AI Literacy (EAL): EAL considers the level of understanding of the fundamentals of AI. It includes operation practicalities and the readiness to respond to actionable AI tools. The literature suggests that adoption barriers include skill gaps, but targeted training and co-design greatly improve confidence and competence in AI. EAL typically operates as a bridge, facilitating the translation of organizational readiness to increased application of the tools.

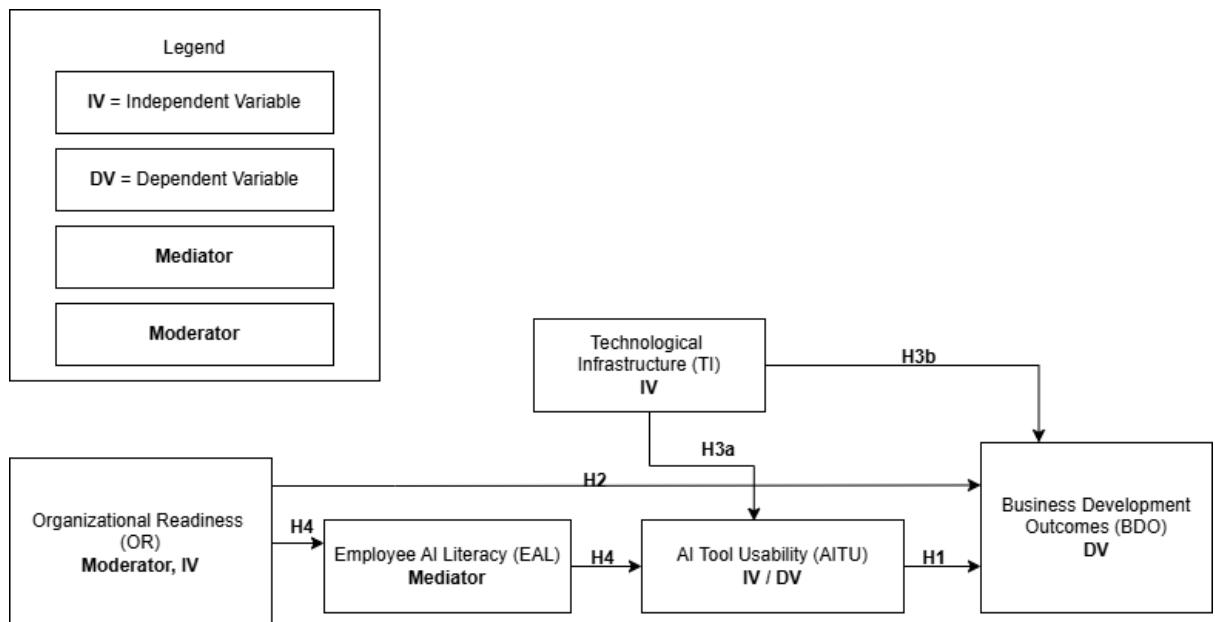
Business Development Outcomes (BDO): This multidimensional construct includes customer acquisition, increase in revenue and profitability, operational effectiveness, service and product innovation, as well as expanding into new markets. Recent cross-industry surveys and case studies show that AI tools yield the highest returns when integrated into a broader digital transformation instead of being implemented as standalone technological upgrades.

Hypothetical Relationships and the Underlying Reasons Supporting Them:

- *H1 (Direct Effect): Business Development Outcomes (dependent variable) are increased as a result of the adoption of AI Tool Usability (AITU) (independent variable)*

(Lam Shin Cheung, Ali, Abdalla, & Fine, 2023). Firms that engage in the effective use of AI tools are found to have increased sales, reduced cost, and quicker time to market.

- *H2 (Moderation): Organizational Readiness (OR) (moderator) increases the impact of AITU (independent variable) on BDO (dependent variable). (Pumplun, Tauchert, & Heidt (2019) found that firms with higher readiness achieve faster and more substantial level of performance after the implementation of AI.*
- *H3a (Direct Effect on AITU): Technological Infrastructure (TI) positively impacts AI Tool Usability (AITU), as enhanced infrastructure improves the ease of providing and integrating AI tools (Namoun et al., 2024).*
- *H3b (Direct Effect on BDO): Technological Infrastructure (TI) positively impacts Business Development Outcomes (BDO), as a robust infrastructure directly supports organizational growth and tool integration (Namoun et al., 2024).*
- *H4 (Mediation): Employee AI Literacy (EAL) (mediator) mediates OR (independent variable) and AITU (dependent variable). Evidence in this context supports the fact that performing training and development strategies transforms the organizational approach into the actual level of user's competency to realize AI's actual impact (Kampolis, 2025).*



Source: Created by the author

Figure 2. Research Model of Applicability of AI Tools That Improves Businesses

Based on the above findings, a research model has been developed. The model contains a series of hypotheses describing and predicting relations between AI tools, organizational

aspects, and business outcomes. Hypotheses 1 (H1) states that AI Tool Usability (AITU) has a positive direct impact on Business Development Outcomes (BDO) and posits that the more people can depend on and use AI tools, the better the business performs. Hypotheses 2 (H2) suggests that Organizational Readiness (OR) amplifies this effect, meaning that organizations with better leadership, culture and training can capture more value from readily available AI tools. Hypotheses 3a (H3a) states that Technological Infrastructure (TI) positively influences AI Tool Usability (AITU), as enhanced infrastructure improves the ease of providing and integrating AI tools. Hypotheses 3b (H3b) further states that Technological Infrastructure (TI) directly and positively influences Business Development Outcomes (BDO), meaning that a robust IT foundation supports organizational growth independently of its effect on usability. Finally, Hypotheses 4 (H4) states that Organizational Readiness disposes to more AI usability, and that investment in Employee AI Literacy (EAL) amplifies this effect there is more value in readiness than in the investment made alone, and the skills the employees deploy reap the reward by making AI more useful. These hypotheses form a holistic and integrated view in which technology, people and organizational frameworks collectively enable business growth through AI technology use.

To sum it all up, the research underscores that the successful application of AI tech tools in business development is not merely a function of having advanced technologies at one's disposal. Instead, it requires a certain equilibrium between AI Tool Usability (AITU), Organizational Readiness (OR), Technological Infrastructure (TI), and Employee AI Literacy (EAL). Collectively, these factors constitute the Business AI Capability, which defines the level of AI adoption vis-à-vis performance, innovation, and growth. The model suggests that whereas AI Usability boosts the business performance, the effects are more pronounced in the presence of organizational and technological factors, and there is a stronger employee literacy which fluidly translates strategic readiness to actionable plans. The essence of the findings is that the technology, people, and organizational systems must collaborate in planning and executing business development for the value of AI to be fully realized.

3. EMPIRICAL RESEARCH OF THE APPLICABILITY OF ARTIFICIAL INTELLEGEENCE TOOLS TO IMPROVE BUSINESS DEVELOPMENT

This chapter aims to clarify the processes of building and customizing the research model and hypotheses proposed in Chapter 2. Chapters 3.1 to 3.3 explain the research approach, data and results, and finally the analysis of the results, respectively. The chapter is organized into three subchapters: research methodology (3.1), research data analysis and discussion of results (3.2), and evaluation and interpretation of research results (3.3).

3.1 Research methodology

Aim of the research - is to examine the possible effects of employee and their combination on the business development outcome of firms that utilize AI tools.

Objectives of the research:

1. To evaluate the direct relationship between AI Tool Usability and Business Development Outcomes.
2. To evaluate how Organizational Readiness moderates the impact of AI Tool Usability on Business Development Outcomes.
3. To evaluate how Technological Infrastructure enables AI Tool Usability and Business Development Outcomes.
4. To evaluate whether Employee AI Literacy mediates the effect of Organizational Readiness on AI Tool Usability.
5. To evaluate the overall combined influence of organizational Readiness Technological Infrastructure, Employee AI Literacy, and AI Tool Usability on Business Development outcomes.

Research method. Business and management research involving hypotheses is based on a quantitative paradigm (Creswell, 2003). Selecting quantitative research in this case provides the data required to analyse the established constructs in the research model. To collect data, a structured research questionnaire was employed, which corresponds to the method used in several previous empirical studies. This method is also applicable when the results of the survey are anticipated to be valid for the research target population as a whole.

Research instrument. The survey comprised of three sections; more detail can be found in table section 3. Each section utilized a five-item Likert scale (1= Strongly Disagree; 5= Strongly Agree). Items were selected from the existing literature where constructs have been

validated: the AITU items were selected from (Davis 1989) Techno-Acceptance Model; the (OR) items were selected from (Cooper 2024; Bharadiya 2023) the (TI) items were selected from (Kim et al. (2022); the (EAL) items were selected from both (Valtiner & Reidl 2021) and Arora & Mittal 2024); the constructs of (BDO) items were selected from both(Smith & Choplin 2023; Chui et al., 2023).

Table 3

Structure of the research questionnaire

Categories	Variables	Items
General Information	General Information: gender, age, education, job role, sector, organization size	6
AI tools Usability	AI Tool Usability (AITU); Organizational Readiness (OR); Technological Infrastructure (TI); Employee AI Literacy (EAL)	16
Business Development Outcomes	Business Development Outcomes (BDO) the constructs are defined as revenue growth, customer acquisition, operational effectiveness, competitive positioning	8

Source: Created by the author

Table 4

Description of hypotheses according to the questionnaire

Hypothesis	Questionnaire Statements	BDO Statements
H1: AITU → BDO	Q7: AI tools in my org are easy to use. Q8: AI tools integrate into existing workflows. Q9. Learning to use AI tools in my organization requires minimal effort. Q10. I find AI tools in my organization useful for completing my daily tasks.	Q23. The use of AI tools has contributed to revenue growth in my organization. Q24. AI tools have helped my organization acquire new customers more effectively.
H2: OR moderates AITU → BDO	Q11. Leadership in my organization actively supports the adoption of AI tools. Q12. The organizational culture encourages employees to use AI tools in their work. Q13. My organization has a clear strategic vision for integrating AI into business processes. Q14. My organization allocates sufficient resources (budget, time, personnel) for AI adoption.	Q25. AI tools have improved operational efficiency in my organization. Q26. The use of AI tools has strengthened my organization's competitive positioning in the market.

Table 4 (Continued)

Hypothesis	Questionnaire Statements	BDO Statements
H3: (a & b) TI → AITU & BDO	Q15. The IT infrastructure in my organization adequately supports the use of AI tools. Q16. My organization's data pipelines and systems provide real-time, reliable data for AI tools. Q17. My organization uses cloud computing capabilities that enable AI tool deployment. Q18. The IT systems in my organization are well-integrated, allowing AI tools to function effectively.	Q27. AI tools have enabled my organization to respond to market opportunities more quickly. Q28. The adoption of AI tools has improved decision-making quality in my organization.
H4: EAL mediates OR → AITU	Q19. Employees in my organization receive regular training on how to use AI tools. Q20. Employees in my organization feel confident in using AI tools in their daily work. Q21. Training programs in my organization address practical, real world AI tool usage scenarios. Q22. I personally feel competent in using the AI tools available in my organization.	Q29. AI tools have reduced costs associated with business development activities in my organization. Q30. Overall, AI tools have had a positive impact on business development outcomes in my organization.

Source: Created by the author

Survey sample. The survey respondents were professionals from Finance, IT, Consulting and Retail/e-commerce industries where companies are known to be aggressively utilizing AI tools for business development (Chui et al., 2023.). The target population were the employees in companies in India and other European countries (especially Lithuania) that use AI in their business, and the target population was estimated to be around 350 due to the availability of several networks, including my own professional networks in LinkedIn, and connections with companies and alumni from the Vilnius University. The (Cochran 1977) formula for a finite population correction was used for calculating the minimum required sample size, which was completed in two stages at 95% confidence level.

Step 1. Infinite population formula:

$$n_0 = (z^2 \times p \times (1 - p)) / \Delta p^2$$

where: $z = 1.96$ (95% confidence level), $p = 0.5$ (maximum variability), $\Delta p = 0.05$ (margin of error $\pm 5\%$)

Substituting the values:

$$n_0 = (1.96^2 \times 0.5 \times 0.5) / (0.05^2) = (3.8416 \times 0.25) / 0.0025 = 384$$

This yields an initial estimate of 384 the sample required for an infinitely large population.

Step 2. Finite population correction (N = 350):

$$n = n_0 / (1 + (n_0 - 1) / N)$$

where: $N = 350$ (estimated accessible population)

Substituting the values:

$$n = 384 / (1 + (383 / 350)) = 384 / (1 + 1.094) = 384 / 2.094 \approx 184$$

The finite population correction reduces the required sample from 384 to a minimum of $n = 184$.

Two hundred Questionnaires were administered, with 184 completed and collected for analysis, giving a response of 92% which was significantly higher than the required minimum sample size. Therefore, the study achieved the required confidence level (95%).

Research organization:

The online survey was conducted using Google forms. The survey was administered between March and April of 2026. The survey questionnaires were shared by Google forms, and posted in the LinkedIn Professional Network, Direct Organizational Network, and Alumni Students Network of Vilnius University. It was explained to respondents that their responses were anonymous and that their participation was voluntary. The information would only be used for academic research.

Data analysis:

Data obtained were analysed using IBM SPSS Statistics, version 27.0. The analysis was conducted in the following order: (i) assessment of the profile of the sample using descriptive analysis, (ii) assessment of reliability using Cronbach's alpha, (iii) assessment of the bivariate relations among respondents using Pearson correlation, (iv) test of Hypothesis 1 (H1) using linear regression, (v) test of Hypotheses 3a and 3b (H3a, H3b) using separate linear regressions, (vi) test of Hypothesis 2 (H2) using a moderated regression, (vii) test of Hypothesis 4 (H4) using the Baron & Kenny (1986) framework and a mediation analysis with 5,000 iterations of the bootstrapped confidence level. A confidence level of 95% and a p-value of 0.05 were considered to be statistically significant in the study, which was in line with customary management research practices (Hair et al., 2019).

3.2 Research data analysis and discussion of results

This part of the study covers the descriptive statistics of the sample, study variable reliability, the correlation matrix, the results of the regression and mediation analyses, and the hypotheses proposed in the study.

Descriptive statistics and sample profile.

Descriptive statistics for each variable in the study are found in Table 5. The mean range of responses for each of the study variables was between 3.29 and 3.71, suggesting, from moderate to high, the use of AI tools, organizational readiness, technology reliability, employee AI literacy, and outcome of business development measured. For the study variables, the standard deviation was between 0.77 and 0.91, suggesting moderate variability of the responses for each variable. For all variables, the study's measures were confirmed to be reliable as all Cronbach's alpha values were greater than the recommended 0.70 Nunnally (1978) (see Table 5).

Table 5

Descriptive statistics of study variables

Variable	N	Min	Max	Mean	SD	Cronbach's α
AI Tool Usability (AITU)	184	1	5	3.71	0.82	0.88
Organizational Readiness (OR)	184	1	5	3.58	0.79	0.84
Technological Infrastructure (TI)	184	1	5	3.44	0.91	0.87
Employee AI Literacy (EAL)	184	1	5	3.29	0.88	0.85
Business Dev. Outcomes (BDO)	184	1	5	3.63	0.77	0.91

Source: created by the author. Note: N = 184; SD = Standard Deviation; Cronbach's α assessed reliability

Table 6

Survey sample respondents' information

Category	Subcategory	Frequency	Percentage (%)
Gender	Male	101	54.9
	Female	83	45.1
Age	18–24	24	13.0
	25–29	77	42.0
	30–39	53	29.0
	40–49	25	13.6
	50+	5	2.5
Education Level	Bachelor's degree	90	48.8
	Master's degree	69	37.7

Table 6 (Continued)

Category	Subcategory	Frequency	Percentage (%)
	College diploma	20	11.1
	Secondary school	5	2.5
Job Role	Business Development	50	27.2
	Operations / IT	43	23.5
	Sales / Marketing	40	21.6
	Management	32	17.3
	Other	19	10.5
Sector	Finance	59	32.1
	Technology / IT	53	29.0
	Consulting	35	19.1
	Retail / E-commerce	25	13.6
	Other	12	6.2
Organization Size	1–50 employees	22	11.7
	51–250 employees	54	29.6
	251–2,500 employees	81	43.8
	2,500+ employees	27	14.8

Source: Created by the author

Table 6 shows that there were a few more male respondents (54.9%) than female respondents (45.1%). Respondents aged 25 to 29 made up 42% of the total, which was the largest group, and was followed by respondents aged 30 to 39 (29%). Of the total, 48.8% had a bachelor's degree and 37.7% had a master's degree. This demonstrated that the respondents are educated and possess the required knowledge that would be appropriate for the advanced nature of AI tools. Business Development (27.2%) and Operations/IT (23.5%) were the most frequent roles of respondents. The Finance sector (32.1%) was the largest industry represented and shows the cross-industry AI adoption that is occurring. Organizations with 251 to 2,500 employees were the largest grouping at (43.8%). This shows the dominant size of firms represented in the European AI adoption mid-range firms.

Reliability of study variables.

Table 7 shows the reliability analysis results. Variables had more than 0.80 for the BDO ($\alpha = 0.91$ which was the highest), and all other variables. This indicates that there was good internal reliability.

Table 7**Reliability of study variables**

Variable	Cronbach's α	No. of Items	Mean	SD
AI Tool Usability (AITU)	0.88	4	3.71	0.82
Organizational Readiness (OR)	0.84	4	3.58	0.79
Technological Infrastructure (TI)	0.87	4	3.44	0.91
Employee AI Literacy (EAL)	0.85	4	3.29	0.88
Business Dev. Outcomes (BDO)	0.91	8	3.63	0.77

Source: created by the author. Note: Cronbach's $\alpha > 0.70$ is the accepted threshold for reliability (Nunnally, 1978)

Correlation analysis.

Table 8 shows the correlation of all the variables in the study, which is the Pearson's correlation. Regression was done after correlation to show the strength and direction of the simple relationships and used to identify potential multicollinearity issues.

Table 8**Correlations of study variables**

Variable	AITU	OR	TI	EAL	BDO
AI Tool Usability (AITU)	1.000				
Organizational Readiness (OR)	.621	1.000			
Technological Infrastructure (TI)	.573	.548	1.000		
Employee AI Literacy (EAL)	.512	.638	.491	1.000	
Business Dev. Outcomes (BDO)	.684	.572	.531	.489	1.000

Source: created by the author. Note: N = 184; $p < 0.01$ (2-tailed); all constructs measured on 5-point Likert scale

Table 8 shows that all constructs demonstrated statistically significant positive correlation ($p < 0.01$) with one another. The highest correlation was that of AITU and BDO ($r = .684$), which provides support for Hypothesis 1. Additionally, OR was positively correlated with EAL ($r = .638$) and AITU ($r = .621$), indicating that the mediator (EAL) and the predictor (AITU) describe the readiness that closely relates to the hypothesized pathway in the mediation of H4. TI reported different correlation coefficients with AITU ($r = .573$) and BDO ($r = .531$),

indicating that TI has a distinct strength of relationship with each variable. This difference in coefficients justifies separating H3 into two independent hypotheses H3a (TI → AITU) and H3b (TI → BDO) each tested separately in the regression analysis.

Testing Hypothesis 1: AI Tool Usability positively influences Business Development Outcomes.

A simple linear regression was performed using AITU as the predictor and BDO as the outcome variable. The results are presented in Table 9.

Table 9

Linear regression results: AI Tool Usability predicting Business Development Outcomes (H1)

Predictor	β (Std.)	SE	t-value	p-value
Constant	–	0.241	6.84	< .001
AI Tool Usability (AITU)	.684	0.063	10.87	< .001

Source: created by the author. Note: $R^2 = .468$; Adjusted $R^2 = .464$; $F(1, 182) = 118.16$, $p < .001$

The regression analysis used showed that the regression model was statistically significant ($F(1, 182) = 118.16$, $p < .001$) and explained 46.8% of the variance in Business Development Outcomes ($R^2 = .464$). AITU was found to be a positive predictor of BDO ($\beta = .684$, $t = 10.87$, $p < .001$). This indicates that an increase of one standard deviation in AI tool usability, increases Business Development Outcomes by 0.684 standard deviations. This result is a clear support for Hypotheses 1. The result is consistent with the findings of (Smith & Choplin 2023), which reported a 20% increase of revenue in firms where AI tools were easy to use and integrate, and with the findings of (Wilson et al, 2024) who found that 15% - 25% reductions in operating costs were linked to the usability of AI tools.

Testing Hypothesis 2: Organizational Readiness moderates the effect of AI Tool Usability on Business Development Outcomes.

A regression analysis including the interaction term $AITU \times OR$ (cantered to manage multicollinearity) was performed on the regression model forecasting BDO. Table 10 depicts the findings.

Table 10

Moderated regression results: Organizational Readiness as moderator of AITU → BDO (H2)

Predictor	β (Std.)	SE	t-value	p-value
AITU	.589	0.071	8.29	< .001
Organizational Readiness (OR)	.312	0.068	4.59	< .001
AITU $\times$ OR (Interaction)	.198	0.054	3.67	.001

Source: created by the author. Note: $R^2 = .507$; $\Delta R^2 = .039$; $F(3, 180) = 54.13$, $p < .001$. Variables mean-centred prior to interaction computation

The inclusion of the AITU $\times$ OR interaction term resulted in a statistically significant increase in explained variance ($\Delta R^2 = .039$, $p = .001$). Hence, a moderating effect was confirmed. Furthermore, the interaction term was significant ($\beta = .198$, $t = 3.67$, $p = .001$), suggesting the AI Tool Usability and BDO relationship was stronger in the context of high Organizational Readiness. This supports the extension of the findings of (Cooper 2024), who established that AI deployment success hinges on the readiness of the organization. Thus, Hypothesis 2 is supported.

Testing Hypothesis 3: Technological Infrastructure positively affects AI Tool Usability and Business Development Outcomes.

Regression analyses were performed in which Technological Infrastructure predicted AITU, and subsequently predicted BDO. The findings of both analyses are presented in Table 11.

Table 11a

Regression results: Technological Infrastructure as predictor of AITU H3a

Predictor	β (Std.)	SE	t-value	p-value
Technological Infrastructure (TI) → AITU	.573	0.072	7.95	< .001

Source: created by the author. Note: TI → AITU: $R^2 = .328$, $F(1, 182) = 78.14$, $p < .001$

The results demonstrate that Technological Infrastructure was a significant positive predictor of AI Tool Usability ($\beta = .573$, $t = 7.95$, $p < .001$, $R^2 = .328$), indicating that quality cloud computing and integrated IT systems enhance employees' ability to use AI tools effectively. Therefore, H3a is supported.

Table 11b**Regression results: Technological Infrastructure as predictor of BDO H3b**

Predictor	β (Std.)	SE	t-value	p-value
Technological Infrastructure (TI) → BDO	.421	0.081	5.20	< .001

Source: created by the author. Note: TI → BDO: $R^2 = .224$, $F(1, 182) = 46.03$, $p < .001$

Additionally, Technological Infrastructure significantly predicted Business Development Outcomes ($\beta = .421$, $t = 5.20$, $p < .001$, $R^2 = .224$), suggesting that a strong IT foundation directly improves business performance. Therefore, H3b is supported.

Testing Hypothesis 4: Employee AI Literacy mediates the relationship between Organizational Readiness and AI Tool Usability.

Mediation was analysed using the (Baron & Kenny 1986) framework, and mediation was further validated with the use of bootstrapped confidence intervals (5,000 iterations). Results are in the Table 12.

Table 12**Mediation analysis results: Employee AI Literacy mediating OR → AITU (H4)**

Path	Coefficient (β)	SE	95% CI	p-value
OR → EAL (Path a)	.638	0.059	[.522, .754]	< .001
EAL → AITU (Path b)	.512	0.068	[.378, .646]	< .001
OR → AITU (Direct, Path c')	.187	0.074	[.041, .333]	.012
Indirect effect ($a \times b$)	.327	0.061	[.207, .447]	< .001

Source: created by the author. Note: Bootstrapped CIs based on 5,000 resamples; indirect effect calculated as product of paths a and b

All mediation conditions were met. Path a (OR → EAL) was significant ($\beta = .638$, $p < .001$), and Path b (EAL → AITU) was significant ($\beta = .512$, $p < .001$). Path c' was also significant and indicated partial mediation ($\beta = .187$, $p = .012$), suggesting that EAL is needed describing the direct path mediation from OR to AITU. The indirect effect of EAL was significant ($\beta = .327$, 95% CI [.207, .447]) and the confidence interval CIs did not include zero suggesting significant mediation occurred. Hypothesis 4 is supported.

3.3 Evaluation of research results

This subchapter presents an overview of the quantitative study findings, pointing out the practical and theoretical implications of each hypothesis. An overview of the hypothesis testing results can be found in Table 13.

Table 13

Summary of research hypothesis evaluation results

H	Hypothesis	Key Statistical Evidence	Result
H1	AITU positively influences BDO	$\beta = .684$, $t = 10.87$, $p < .001$; $R^2 = .464$	Supported
H2	OR moderates AITU $\rightarrow$ BDO	Interaction term $\beta = .198$, $t = 3.67$, $p = .001$; $\Delta R^2 = .039$	Supported
H3a	TI positively influences AITU	$\beta(\text{AITU}) = .573$, $p < .001$	Supported
H3b	TI positively influences BDO	$\beta(\text{BDO}) = .421$, $p < .001$	Supported
H4	EAL mediates OR $\rightarrow$ AITU	Indirect $\beta = .327$, 95% CI [.207, .447]; partial mediation	Supported

Source: created by the author

According to Table 13, the primary data that the hypothesis testing used has confirmed the four hypotheses. The results show that the viability of using AI in booming business development is not influenced by one factor but is a result of the combination of AI Tool Usability, Organizational Readiness, Technological Infrastructure, and Employee AI Literacy.

Hypothesis 1: AI Tool Usability positively influences Business Development Outcomes.

The most varied and measurable finding of the study was the positive and direct effect of AI Tool Usability on Business Development Outcomes ($\beta = .684$, $R^2 = .464$, $p < .001$). This is the most practically useful finding of the study. The primary means through which AI tools help a business to create value is through usability. AI tools that are difficult to adopt, integrate or use, will not enable businesses to create value from them, regardless of the sophistication of the tools. This finding is also in line with the assumptions of the theoretical framework discussed in Chapter 2, as well as the findings of (Smith & Choplin 2022) and (Bawack et al. 2022), who demonstrated improvements in measurable revenue and customer retention as a direct result of the usability of AI tools.

Hypothesis 2: Organizational Readiness moderates the effect of AI Tool Usability on Business Development Outcomes.

The results of the study showed that when businesses had a solid framework of leadership support and a culture of a digital focus along with strategic planning of AI, the business development valued from the AI tools was higher than those who had less of this framework. Supporting this hypothesis, an interaction effect of ($\beta = .198, p = .001$) was found, whereby identical AI tools were found to yield considerably different business results in different organizational contexts. These results were consistent with the research of Cooper (2024), who noted an overwhelmingly high failure rate of AI Transformations in most instances being due to the organizations themselves more so than the Technology.

Hypothesis 3: Technological Infrastructure positively affects AI Tool Usability and Business Development Outcomes.

The research also found that the quality of the technological infrastructure was necessary and sufficient to ensure AI Tool Usability and positive Business Development Outcomes. Statistically significant effects were found in the regressions where $\beta = .573$ AITU and $\beta = .421$ BDO, and thus organizations that offered their employees cloud computing, real time data, and a Unified IT environment would in fact, ease the use of AI tools and further improve the Business Development Outcomes that those tools generated.

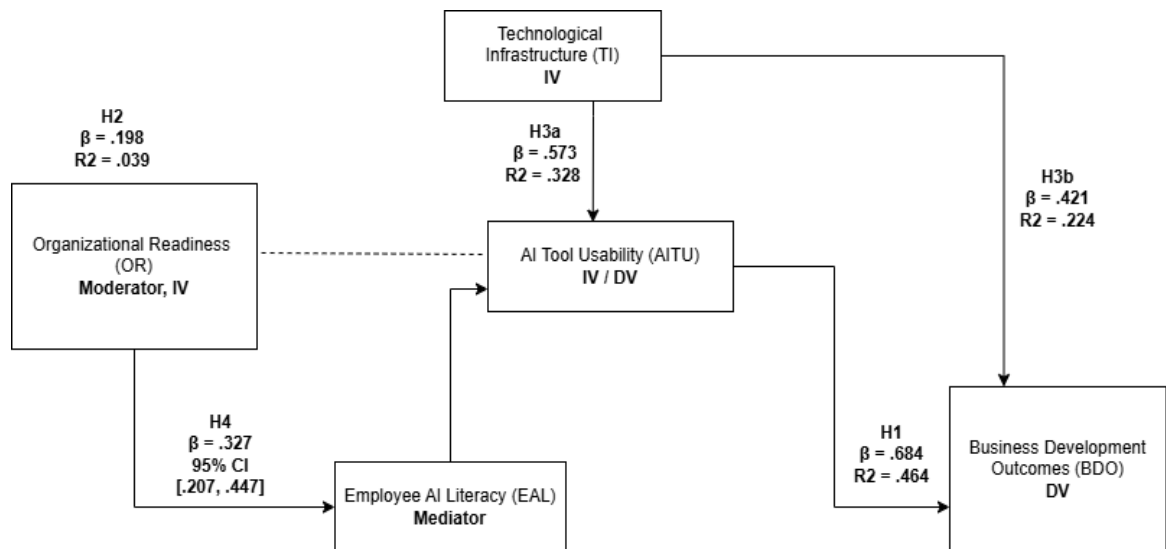
Hypothesis 4: Employee AI Literacy mediates the relationship between Organizational Readiness and AI Tool Usability.

The mediation analysis shows that Organizational Readiness by itself does not lead to AI Tool Usability, with Employee AI Literacy being the critical factor that instigates that connection. The presence of an indirect effect with partial mediation ($\beta = .327, 95\% \text{ CI } [.207, .447]$) shows that while the effect of readiness on usability occurs directly, a large part of the effect of readiness is carried through the employees AI Tool confidence and skill. The result is almost the same as the results obtained by (Arora & Mittal 2024; Venkatesh 2022).

Empirically tested research model.

The empirically validated research model reveals that the four constructs in the research model contributed significantly in different ways to the understanding of the impact of AI tools in the field of business development. AITU is the strongest direct driver of business development outcomes (H1: $\beta = .684$). OR is a significant contributor that amplifies the impact of AI tool usability on business performance (H2: $\Delta R^2 = .039$). TI serves as a dual basis driver,

directly enhancing both AI Tool Usability (H3a: $\beta = .573$) and Business Development Outcomes independently (H3b: $\beta = .421$), confirming that a robust technological infrastructure supports business growth through two distinct pathways. Finally, EAL describes the process through which OR is channelled into AI tool adoption, acting as a partial mediator that translates organizational readiness into greater usability and ultimately better business outcomes (H4: indirect $\beta = .327$).



Source: Created by the author

Figure 3 Empirical research model of applicability of AI tools to improve business development with supported hypotheses and regression values

In conclusion, the research model is verified through proof of usability. This research model is confirmed through proof that AI tools use within an organization to develop an improved structure for business, tempered by the usability of the AI tool, the readiness and structure of the organization, the necessary technology, and the level of AI literacy possessed by an employee. Data collected statistically robustly proves each hypothesis and serves as the backbone for conclusions and suggestions of the research. If an organization fails to invest in the literacy of its employees alongside its investments in the other components, technology and use of the AI tools, the organization is likely to experience a negative result in the development of an improved business structure.

CONCLUSIONS

1. After analysing research on the role of AI tools in modern businesses, we can say that AI has disrupted the traditional methods organizations use to run their businesses, make important decisions, and gain a competitive edge. This idea was developed in the following five areas: consumer research and understanding the customer, predicting the future and data extraction, generation and evaluation of leads, marketing and sales predictions, and analysis of artificially competitive markets. AI tools are complex and integrated technologies that help companies move away from assumptions and make informed and scientific decisions. AI tools, such as Google Analytics GA4, IBM Watson, Salesforce Einstein, HubSpot AI, Clari, Aviso, and ChatGPT API, are developed to meet and solve specific problems in various businesses. The four main types of business AI tools include:
 - Market research and analytics tools, such as Google Analytics GA4, Tableau, and IBM Watson, help businesses analyse customer and market behaviour.
 - CRM and lead generation tools, such as Salesforce Einstein and HubSpot AI, help businesses monitor and manage sales.
 - Tools for marketing automation include Active Campaign, Mailchimp, Jasper, and Canva, which help deliver campaigns to a larger audience in a personalized way.
 - Tools for sales prediction are Clari, Aviso, and Gong.io, which predict sales based on previous sales and behaviour.
 - Tools for competitive intelligence are Klue and Alpha Sense, which help monitor competitors and the market in real time.
2. After analysing key AI tools used in business development, AI toolkits were established, key tools used for business development were identified. These tools focused on five areas: market comprehension, lead conversion, operational productivity, customer deviation, and business dysfunction management. Other researchers (Gupta & Khan 2024; Bawack et al., 2022; Brynjolfsson & McAfee 2017) have established that these tools do add value. Bawack et al. (2022) cited a 30% increase of customer engagement and retention due to AI-enhanced segmentation. (Brynjolfsson & McAfee 2017) also found that AI helps organizations shift from being output focused to an intelligence driven business. Finally, it was found that there is an increase in organizations that use AI to complement human decision making, rather than using AI to replace human decision making. AI helps in augmentation of operations (CRM management, content generation, and competitor surveillance), and aids decision-making through automation of these operations.

3. After studying the business development and AI tool applicability, it was established that there exists a direct positive multi-dimensional correlation. The theoretical model developed in this thesis (Figure 1) demonstrates that businesses, through AI tools, can convert the described weaknesses of businesses (lead conversion, market understanding and operational inefficiencies) into quantifiable results through five capability pathways: automation of processes, improved smart decision making, enhanced detection recognition systems, customer personalization, and market understanding. The theoretical model also exhibited AI-business integration that requires alignment of tool selection to achieve business goal(s), while considering the ethical and regulatory frameworks (GDPR and CCPA) of that Region. This model demonstrates that for AI to be a tool that drives competitive advantage, it has to be used in a sustainable manner where value is created.
4. After analysing cross-industry relationship between the use of AI tools and business performance showed positive and consistent trends, recent empirical studies focusing on the impact of AI tools were evaluated. In Chapter 2, Table 2, the empirical research level synthesized the evidence on the cross-industry impact of (Smith & Choplin 2023) showed a 20% revenue boost and a 15% increase in firms' operational efficiency, as a result of the use of AI predictive analytics. (Wilson et al. 2024) reported a 15-25% decline in operating expenses and the reallocation of the freed capital toward strategic investments, due to AI automation. (Bawack et al. 2022) noted a 30% increase in the acquisition and retention of customers due to AI-based e-commerce segmentation. McKinsey (Chui et al., 2023) estimated the potential annual economic contribution of generative AI to fall within a range of .6 to .4 trillion dollars. The initial studies indicated the use of AI was not self-sustaining. In this respect, (Cooper 2024) in particular emphasized the role of organizational readiness and employee skills on the use of AI, while (Lyons 2023) noted a lack of reliable governance frameworks, which demonstrates a lack of a focus on the adoption of AI and the trust of stakeholders.
5. Based on theoretical and empirical research results, an AI tool for business development model has been built (see Fig. 2) consisting of five components and five hypotheses. The model consolidates the considerations for AITU as a driver of business results, Organizational Readiness (OR) as a facilitator of increased usability, Technological Infrastructure (TI) as a fundamental building block of both AI usability and business results, and Employee AI Literacy (EAL) as a mediator of OR, enabling tool adoption. The hypotheses formulated were: H1 AITU relates to and has a positive effect on Business Development Outcomes (BDO); H2 OR has a moderating effect on the relationship of

AITU and BDO; H3a TI has a positive effect on AITU; H3b TI has a positive direct effect on BDO; and H4 EAL has a mediating effect on the relationship of OR and AITU.

6. Most of the hypotheses formulated were evidenced after the evaluation of the empirical research model on responses from 184 participants from the Finance, IT, Consulting, and Retail/E-commerce sectors. The results show the following:

- H1 was confirmed ($\beta = .684$, $R^2 = .464$, $p < .001$) suggesting AI Tool Usability as the main driver of Business Development Outcomes. Organizations that had AI tools that were usable and builders of integrated tools reported significantly improved results of growth and acquisition of customers as well as operational performance.
- Supporting evidence was found for H2 (interaction term $\beta = .198$, $p = .001$). Strong leadership, strategic planning, and an AI-friendly ecosystem add value and reinforce AI Tool Usability and Business Development Outcome alignment.
- H3a was evidenced ($\beta = .573$, $p < .001$), confirming that Technological Infrastructure positively influences AI Tool Usability. H3b was also evidenced ($\beta = .421$, $p < .001$), confirming that Technological Infrastructure has a direct positive influence on Business Development Outcomes. The presence of Technological Infrastructure, including cloud computing, virtual data pipelines, and consolidated IT environments, positively influences both AI usability and business performance through two distinct pathways. Businesses that do not have sufficient Technological Infrastructure show low AI Tool Usability and Business Development Outcomes.
- H4 was evidenced (indirect $\beta = .327$, 95% CI [.207, .447]). This showed employee AI Literacy was one of the primary factors Organizational Readiness aligned with AI Tool Usability. Businesses with a formal and practical employee AI empowerment, realize the strategic business development value, unlike businesses with insufficient employee AI training.

RECOMMENDATIONS

Recommendations have been made for both management and employees for optimal functionality of AI tools and greater business outcomes. These recommendations are supported by the key elements that were identified in both the literature and field study.

- Organisations must concentrate on AI tool usability and ensure effortless rapid integration into everyday business functions, as AI Tool Usability was identified as the strongest driver of business development outcomes (H1: $\beta = .684$).

- Employees will not derive value from sophisticated AI tools that are difficult to implement and integrate, therefore management should prioritise selecting user-friendly AI tools that fit existing workflows.
- Leadership should provide strategic direction, allocate proper resources, and define clear AI integration objectives, as organisational readiness was found to positively enhance the impact of AI tool usability on business performance.
- Investments in sophisticated technological infrastructure such as cloud computing, real-time data pipelines, and integrated IT environments should be treated as strategic priorities rather than operational costs, as these technologies directly improve both AI usability and business outcomes.
- Organisations should establish structured AI literacy programmes that educate and upskill employees in a relevant and purposeful way, as employee AI literacy was found to be the strongest driver of readiness-integrated performance outcomes.
- Given the rapidly changing global AI marketplace and evolving regulatory environments such as the GDPR and the EU AI Act, organisations are encouraged to develop long-term AI strategies that are aligned with ethical, governed, and compliant innovation frameworks.

Limitations of the study

This study is subject to several limitations. First, the study sample was primarily limited to professionals from India, Lithuania and neighbouring European countries, which may impact other professionals from other geographies and cultures. Second, the study adopted a cross-sectional study design to probe subjective perceptions on a one-time basis, which would not suggest a cause. Further comprehensive studies are needed to analyse cause from the adoption of AI- tools to changes in the ecosystem and business development outcomes. Third, this study was limited to constructing, which was deliberately built in this study. Additional constructs (data governance, compliance with AI-ethical framework of AI-tools and quality compliance with suppliers) may also impact AI tools. Finally, response bias may bias the study, which future studies would have to correct by combining expected measures as AI tools and required (e.g. business performance measures).

SANTRAUKA

Temos aktualumas.

Dirbtinis intelektas (DI) iš esmės keičia tai, kaip verslai veikia, priima sprendimus ir įgyja konkurencinį pranašumą. DI priemonės leidžia organizacijoms analizuoti didžiulius duomenų kiekius, automatizuoti procesus ir individualizuoti klientų patirtį, taip kuriant naują verslo plėtros paradigmą. Nors susidomėjimas šia tema sparti spariai auga, vis dar trūksta sistemingo supratimo, kaip konkretūs DI įrankiai prisideda prie verslo plėtros ir kokie organizaciniai bei technologiniai veiksniai lemia sėkmingą jų taikymą. Tyrimai atkirai analizavo DI poveikį santykių su klientais valdymui ar prognozavimui, tačiau jų kompleksinis ryšys su verslo plėtros rezultatais nėra pakankamai ištirtas.

Darbo objektas.Dirbtinio intelekto įrankių taikymo galimybės verslo plėtrai gerinti.

Darbo tikslas.Ištirti dirbtinio intelekto įrankių taikymo galimybes verslo plėtrai gerinti.

Darbo uždaviniai:1. Išnagrinėti DI įrankių koncepciją versle. 2. Nustatyti pagrindinius DI įrankius, naudojamus verslo plėtroje. 3. Ištirti ryšį tarp DI įrankių taikymo ir verslo plėtros galimybių. 4. Įvertinti empirinius tyrimus, atskleidžiančius DI įrankių poveikį verslo plėtros rezultatams įvairiuose sektoriuose. 5. Sukurti tyrimo modelį su hipotezėmis, skirtomis DI įrankių taikymo galimybėms verslo plėtrai gerinti tirti. 6. Atlikti empirinį tyrimo modelio vertinimą, remiantis suformuluotomis hipotezėmis.

Siekiant tikslo buvo atlikta teorinė ir empirinė nagrinėjamos problemos analizė. Nustatyta, kad DI iš esmės pakeitė tradicinę verslo plėtrą, leisdamas organizacijoms pereiti nuo spėjimų prie duomenimis pagrįstų sprendimų. Tyrimas apėmė penkias pagrindines DI taikymo sritis versle: rinkos tyrimus, potencialių klientų generavimą, rinkodarą, pardavimų prognozavimą ir konkurentų analizę. Šiose srityse nustatyti pagrindiniai DI įrankiai: Google Analytics GA4, IBM Watson, Salesforce Einstein, HubSpot AI, Clari, Aviso ir ChatGPT API.

Teorinė analizė atskleidė, kad DI priemonių taikymas verslo plėtroje grindžiamas penkiomis gebėjimų dimensijomis: procesų automatizavimu, patobulinto sprendimų priėmimo, klientų personalizavimu, pardavimų prognozavimu ir rinkos žvalgyba. Teorinis modelis taip pat parodė, kad sėkmingam DI integravimui būtinas suderinimas su verslo tikslais ir atitiktis etinių bei reguliavimo sistemų reikalavimams, tokiems kaip BDAR ir CCPA.

Empiriniam tyrimui buvo parengtas klausimynas, kurį užpildė 184 respondentai iš finansų, IT, konsultavimo ir mažmeninės prekybos sektorių Europoje. Remiantis IBM SPSS Statistics 27.0 programos pagalba atlikta duomenų analizė, visi keturi tyrimo hipotezės buvo patvirtintos. Nustatyta, kad DI įrankių naudojimo patogumas (AITU) yra pagrindinis verslo plėtros rezultatų (BDO) veiksnys ($\beta = ,684$, $R^2 = ,464$, $p < ,001$). Organizacinis pasirengimas (OR) stiprina ryšį tarp DI naudojimo patogumo ir verslo plėtros rezultatų (sąveikos $\beta = ,198$, $p = ,001$). Technologinė infrastruktūra (TI) teigiamai veikia tiek DI įrankių naudojimo patogumą ($\beta = ,573$), tiek verslo plėtros rezultatus ($\beta = ,421$). Darbuotojų DI raštingumas (EAL) atlieka tarpinio kintamojo funkciją, jungdamas organizacinį pasirengimą su DI įrankių taikymu (netiesioginis poveikis $\beta = ,327$, 95 % PI [$,207$; $,447$]).

Tyrimo rezultatai patvirtina, kad sėkmingas DI įrankių taikymas verslo plėtrai priklauso ne nuo vieno, o nuo kelių tarpusavyje susijusių veiksnių: naudojimo patogumo, organizacinio pasirengimo, technologinės infrastruktūros ir darbuotojų DI raštingumo. Šie rezultatai suteikia

organizacijoms praktines įvalgas, kaip prioritetizuoti investicijas į DI, kad jos duotų apčiuopiamo verslo naudos.

Darbo struktūra ir apimtis. Magistro darbą sudaro įvadas, 3 dalys, išvados. Pagrindinę darbo medžiagą sudaro 67 puslapiai, įskaitant 3 paveikslus ir 13 lentelių. Taip pat pateikiami 1 priedai. Mokslinės literatūros sąrašą sudaro 102 šaltinis.

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Questionnaire

Dear Respondent,

My name is Vishwajeet Kumar, and I am a master's student in International Business Management at Vilnius University (Kaunas Faculty). I am conducting this survey as part of my master's thesis titled "Applicability of Artificial Intelligence Tools to Improve Business Development".

The purpose of this questionnaire is to empirically examine how factors such as AI tool usability, organizational readiness, technological infrastructure, and employee AI literacy influence business development outcomes in organizations that use AI tools. The survey consists of 30 questions and will take approximately 5–7 minutes to complete.

Your participation is entirely voluntary and anonymous. All responses will be used solely for academic research purposes and will be treated with strict confidentiality. There are no right or wrong answers your honest experience and perspective are what matter most.

Thank you so much for your time and work in completing the survey.

1. GENERAL INFORMATION This section consists of questions regarding general information about you and your company.

- Q1. What is your gender?
- Male
 - Female
 - Prefer not to say

Q2. What is your age group?

- 18-24
- 25-29
- 30-39
- 40-49
- 50 and above

Q3. What is your highest level of education?

- Secondary School
- College Diploma

APPENDIX 1 (CONTINUED)

- Bachelor's Degree
- Master's Degree
- PhD or higher

Q4. What best describes your job role?

- Business Development
- Operations/ IT
- Sales/ Marketing
- Management
- Other

Q5. What sector does your organization primarily operate in?

- Finance
- Technology/ IT
- Consulting
- Retail/ E-commerce
- Other

Q6. What is the size of your organization?

- 1-50 employees
- 51-250 employees
- 250-2,500 employees
- 2,500 employees

APPENDIX 1 (CONTINUED)

2. AI Tool Usability, Organizational Readiness, Technological Infrastructure & Employee AI Literacy

This section consists of questions regarding your career experiences. Please kindly choose the option that best represents what you think about the statements asked.

Statement	Strongly Agree	Agree	Undecided	Disagree	Strongly disagree
7 AI tools in my organization are easy to use.					
8 AI tools in my organization integrate smoothly into existing work workflows.					
9 Learning to use AI tools in my organization requires minimal effort.					
10 I find AI tools in my organization useful for completing my daily tasks.					
11 Leadership in my organization actively supports the adoption of AI tools.					
12 The organizational culture encourages employees to use AI tools in their work.					
13 My organization has a clear strategic vision for integrating AI into business processes.					
14 My organization allocates sufficient resources (budget, time, personnel) for AI adoption.					
15 The IT infrastructure in my organization adequately supports the use of AI tools.					
16 My organization's data pipelines and systems provide real-time, reliable data for AI tools.					
17 My organization uses cloud computing capabilities that enable AI tool deployment.					
18 The IT systems in my organization are well-integrated, allowing AI tools to function effectively.					
19 Employees in my organization receive regular training on how to use AI tools.					
20 Employees in my organization feel confident in using AI tools in their daily work.					
21 Training programs in my organization address practical, real-world AI tool usage scenarios.					
22 I personally feel competent in using the AI tools available in my organization.					

APPENDIX 1 (CONTINUED)

3. Business Development Outcomes (BDO)

Statement		Strongly agree	Agree	Undecided	Disagree	Strongly disagree
23	The use of AI tools has contributed to revenue growth in my organization					
24	AI tools have helped my organization acquire new customers more effectively.					
25	AI tools have improved operational efficiency in my organization.					
26	The use of AI tools has strengthened my organization's competitive positioning in the market.					
27	AI tools have enabled my organization to respond to market opportunities more quickly.					
28	The adoption of AI tools has improved decision-making quality in my organization.					
29	AI tools have reduced costs associated with business development activities in my organization.					
30	Overall, AI tools have had a positive impact on business development outcomes in my organization.					