DOKUZ EYLÜL UNIVERSITY
GRADUATE SCHOOL OF SOCIAL SCIENCES
DEPARTMENT OF BUSINESS ADMINISTRATION (ENGLISH)
BUSINESS ADMINISTRATION (ENGLISH) PROGRAM
MASTER'S THESIS

HOW AI-DRIVEN TOOLS CAN ENHANCE TEACHING IN HIGHER EDUCATION IN BUSINESS SCHOOL

Masoud NOURIMIAVAGHI

Supervisor
Prof. Dr. Banu DEMİREL

2025

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DECLARATION

I hereby declare that this master's thesis titled as "how ai-driven tools can enhance teaching in higher education in business school" has been written by myself in accordance with the academic rules and ethical conduct. I also declare that all materials benefited in this thesis consist of the mentioned resources in the reference list. I verify all these with my honor.

Date

24.4.2025

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ABSTRACT

Master's Thesis

How Ai-Driven Tools Can Enhance Teaching In Higher Education In Business School

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Department of Business Administration (English)

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Studies emphasize the transformative effects of AI technology on diverse teaching activities, such as course preparation, classroom instruction, online teaching, exam preparation, and student performance evaluation. AI can reshape these educational processes, particularly in the context of digital technologies and distance education. This thesis investigates the use, benefits, difficulties, and future potential of AI-driven tools in business school teaching, focusing on educators' experiences. The study used a qualitative research methodology, which includes purposive and convenience sampling, to gather rich and diverse insights from business school professors. Semi-structured interviews and focus groups were utilized to collect data, capture in-depth opinions, and foster dynamic discussions. Semi-structured interviews were conducted with a diverse sample of educators from various academic levels and business disciplines, and focus groups were organized to encourage educators to share experiences and ideas. The study adheres to ethical standards by obtaining informed consent from all participants and securely preserving data.

The findings indicate that AI tools improve teaching efficiency, personalize learning experiences, and provide useful information for performance evaluation. Challenges include technical obstacles, a lack of training, and ethical issues related to data protection to ensure complete data collection. This study contributes to our understanding of AI integration in higher education by providing practical insights for educators and policymakers.

The findings illustrate the importance of selecting appropriate data collection locations and maintaining participant comfort when gathering rich qualitative data. By addressing both the potential and limitations of AI tools, the study presents a balanced view of their role in improving education in business schools.

Keywords: AI in Education, AI-Driven Tools, Learning Analytics, Student Engagement, Business School, Higher Education.

ÖZET

Yüksek Lisans Tezi

Yapay Zeka Destekli Araçlar, İşletme Okulu Yükseköğretimde Öğretimi Nasil Geliştirebilir?

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İngilizce İşletme Yönetimi Programı

Çalışmalar, yapay zeka (AI) teknolojisinin ders hazırlığı, sınıf içi öğretim, çevrimiçi öğretim, sınav hazırlığı ve öğrenci performans değerlendirmesi gibi çeşitli öğretim faaliyetleri üzerindeki dönüştürücü etkilerini vurgulamaktadır. Özellikle dijital teknolojiler ve uzaktan eğitim bağlamında, AI bu eğitim süreçlerini yeniden şekillendirebilir. Bu tez, işletme okulu öğretiminde AI destekli araçların kullanımı, faydaları, zorlukları ve gelecekteki potansiyelini, eğitmenlerin deneyimlerine odaklanarak araştırmaktadır. Çalışmada nitel bir araştırma metodolojisi benimsenmiş, zengin ve çeşitli görüşler elde etmek amacıyla amaçlı ve kolayda örnekleme yöntemleri kullanılmıştır. Veri toplamak, derinlemesine görüşleri yakalamak ve dinamik tartışmaları teşvik etmek için yarı yapılandırılmış görüşmeler ve odak grup çalışmaları gerçekleştirilmiştir. Farklı akademik seviyelerden ve işletme disiplinlerinden eğitmenlerden oluşan çeşitli bir örneklem ile yarı yapılandırılmış görüşmeler yapılmış ve deneyimlerin ve fikirlerin paylaşılmasını teşvik etmek için odak grup çalışmaları düzenlenmiştir. Çalışma, tüm katılımcılardan bilgilendirilmiş onam alınarak ve verilerin güvenli bir şekilde saklanarak etik standartlara uygun bir şekilde yürütülmüştür.

Bulgular, AI araçlarının öğretim verimliliğini artırdığını, öğrenme deneyimlerini kişiselleştirdiğini ve performans değerlendirmesi için yararlı bilgiler sağladığını göstermektedir. Ancak, teknik engeller, yetersiz eğitim ve veri koruma ile ilgili etik sorunlar gibi zorluklar da tespit edilmiştir.

Bu çalışma, yükseköğretimde AI entegrasyonuna dair anlayışımızı geliştirerek eğitmenler ve politika yapıcılar için pratik bilgiler sunmaktadır. Bulgular, zengin nitel veriler toplarken uygun veri toplama yerlerini seçmenin ve katılımcı konforunu sağlamanın önemini göstermektedir. AI araçlarının potansiyelini ve sınırlamalarını ele alarak, çalışma işletme okullarındaki eğitimi geliştirmedeki rolleri hakkında dengeli bir bakış açısı sunmaktadır.

Anahtar Kelimeler: Eğitimde AI, AI Destekli Araçlar, Öğrenme Analitiği, Öğrenci Katılımı, İşletme Okulu, Yüksek Öğrenim.

HOW AI-DRIVEN TOOLS CAN ENHANCE TEACHING IN HIGHER EDUCATION IN BUSINESS SCHOOL

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ABBREVIATIONS

AI	Artificial Intelligence
CAI	Computer-Assisted Instruction
EDM	Educational Data Mining
ITS	Intelligent Tutoring Systems
LADs	Learning Analytics Dashboards
ML	Machine Learning
NLP	Natural Language Processing

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INTRODUCTION

Recently, artificial intelligence (AI) has rapidly developed to transform industries, including the education sector. Business schools, in particular, are incorporating AI-powered tools in their teaching methods to enable students to engage with the evolving business world. The use of AI in education is no longer a trend but a necessity for institutions to stay competitive and relevant in the market. According to Luckin et al. (2016:20), AI has the potential to revolutionize educational landscapes by providing custom-learned learning experiences and improving administrative efficiency.

Business education is changing as more industries are shifting to digital and AI-based solutions. Therefore, it has become a critical task for educational institutions to prepare students for the environment where artificial intelligence is dominant (Onesi-Ozigagun et al., 2024:3). The COVID-19 pandemic, however, quickened the adoption of AI in education, compelling schools to adopt digital learning. AI solutions like Microsoft Teams' transcriptions have helped with the transition from mixed learning to digital learning and have added real-time transcription, translation, and feedback (Tariq, 2024:33).

AI technologies in business education include a plethora of tools that assist in improving learning outcomes and operational efficiency. These include AI-based learning management systems that personalize content, virtual teaching assistants that provide real-time support, and data analytics platforms that help in tracking student performance. Also, using AI-driven simulations and gamified learning environments, students are exposed to real-life scenarios to develop practical skills and innovative thinking. First, it is necessary to understand the strengths and weaknesses of these tools in order to further develop business education and integrate them properly into teaching practices (Hamzah et al., 2024:60).

The advent of AI in education highlights numerous long-lasting challenges by providing handy solutions including tailored learning tracks, real-time feedback mechanisms, and self-operating assessment tools (Ouyang & Jiao, 2021). These advantages are particularly significant in business schools because of the practical application of the curriculum. Therefore, the use of AI in teaching and learning

improves teaching effectiveness and aligns more closely with the needs of individual students (Alamri et al., 2021).

The leap to remote and hybrid learning models during the COVID-19 pandemic showed how technology could be a key enabler of learning continuity. AI-based technologies have been vital in this transition as they have provided dynamic, personalized, and engaging online learning experiences. They have also ensured that the students remain motivated and connected with their instructors and peers, despite being physically separated (Williamson et al., 2020).

This study aims to explore the integration of AI-driven tools in business schools and their applications, benefits, challenges, and future potential. It attempts to provide a holistic understanding of these tools and how they can transform educational practices and teaching methods. Furthermore, the study examines how AI technologies can increase instructional efficiency, enhance student engagement, and help address issues in business higher education.

This research is structured around four primary objectives:

1. To identify and describe the AI tools used in business school education.
2. To examine the effects of these tools on teaching effectiveness, student engagement, and learning outcomes.
3. To investigate the challenges that educators face when integrating AI-driven tools into their teaching practices.
4. To explore ways of effectively integrating AI technologies into business school curricula.

The present study adopts a qualitative research methodology to gain an in-depth understanding of the integration and impact of AI-driven tools in business school education. Purposive and convenience sampling was used to select participants to ensure that educators with different academic levels, subjects, and teaching experiences were represented.

Data collection was through 15 semi-structured interviews and one focus group with 8 participants, which allowed for the collection of detailed, in-depth data and the possibility of interactive discussion. This 2-stage approach helped in identifying common points and different issues that came up during the focus group and the interviews. Semi-structured interviews enabled the participants to express their own

experiences while the focus group provided a platform for the participants to share their ideas collectively.

This approach enabled a thorough examination of perspectives of teachers on the implementation, benefits and challenges of the AI-based tools for teaching. Through the detailed description of these experiences, the paper provides a deeper understanding of AI's transformative contribution to the field of higher education (Weyant, 2022).

This research aims to contribute to the discussion of the integration of artificial intelligence in higher education by addressing both the opportunities and challenges of AI-driven tools. It provides practical recommendations for educators and policymakers on how to select appropriate data collection methods and to ensure participant comfort. The findings highlight the potential of AI in business school education and provide recommendations for using these technologies to improve teaching and learning (Holmes et al., 2022).

This study investigates the use of AI-driven technologies in business school education with the goal of identifying ways to innovate and improve teaching methods, enhancing the learning experience of students. It adds to the growing discussion on educational technology and innovation in business education.

The thesis is divided into the following chapters:

- Chapter One presents an overview of AI-driven tools and their application in business school education.
- Chapter Two presents a literature review of the evolution of AI in education, trends in adoption, and applications in business schools.
- Chapter Three presents the research methodology and findings on the integration of AI, including the benefits and challenges of using AI in teaching and learning. It also presents the findings on the perceptions of educators, the impact of AI on teaching effectiveness and student engagement, and strategies for integration.
- The conclusion summarizes the study's findings, implications, and recommendations for future research.

CHAPTER ONE
AI-DRIVEN TOOLS IN HIGHER EDUCATION AND BUSINESS SCHOOLS

1.1. DEFINITION

Artificial intelligence (AI) is the science of creating systems capable of performing tasks that would otherwise need human intelligence. These include decision-making, problem-solving, and learning. AI-driven tools in education are technologies that employ machine learning (ML), natural language processing (NLP), and big data analytics to enhance teaching and learning. These tools assist in customizing instruction, analyzing student information, and automating certain tasks (Williamson, B., 2016). For example, intelligent tutoring systems that provide individualized feedback to students, automated grading software that evaluates student work, and chatbots that can answer students' queries in real time are all examples of AI-powered technologies used in the classroom. Additionally, AI-powered learning management systems can keep tabs on students' progress and adjust the curriculum to suit the learner's needs, thus providing a more personalized learning experience (Iqbal, 2023:4).

Some adaptive learning platforms can change the support provided to the student and the content to be delivered to the student based on the student's input and performance data so that every student gets the material that they are supposed to get based on their ability and progress (Kem, 2021). This personalization helps in shifting the focus from conventional teaching methods to a more student-focused approach, which is now crucial in the contemporary mixed-learning environment.

New AI-driven virtual teaching assistants, and chatbots, help support students through answering questions and doing some basic administrative tasks, making learning and running a school easier (Wongmahesak et al., 2025). These tools increase the efficiency of learning by giving easy access to information and reducing the amount of work that teachers have to do.

Some key AI-driven tools in education include:

Adaptive Learning Platforms: Adaptive Learning Platforms: These change the content complexity based on the student's progress. For instance, ALEKS uses AI to

assess students' knowledge and offer learning activities that help improve learning outcomes. Moreover, ALEKS, developed by McGraw-Hill Education, has been successfully used at various universities to enhance students' basic arithmetic skills. Schools using ALEKS have found that students demonstrate a strong understanding and recall of mathematical concepts, and the platform continually changes the level of task difficulty to suit each student's learning pace. Therefore, the outcomes show high engagement and academic achievement (McGraw-Hill Education, 2021; Annuš, 2024).

Intelligent Tutoring Systems: Tools like Socratic offer real-time advice and feedback and replace the function of a personal tutor. AI-Powered Analytics Tools: The Learning Analytics Dashboards (LADs) analyze student data to enable instructors to understand class engagement, attendance, participation, and learning activities. They help in identifying at-risk students and planning interventions (Vashishth et al., 2024). Early identification of learning issues in education is important because it allows teachers to address learning deficiencies before they become major problems. Using AI-powered analytics tools, teachers can track students' performance in real time and provide prompt support strategies. This proactive approach not only helps in closing learning gaps but also fosters a more inclusive and supportive learning environment, which can lead to higher student success rates (Lakshmi et al., 2024).

Theoretical Foundations;

This study's theoretical foundation is based on several principles of AI and education. First, there is the concept of individualized learning, which AI makes possible by allowing the computational adaptation of the learning environment to the learner. This approach is based on constructivist learning theories that state that learners construct their knowledge actively, rather than receiving it passively. AI facilitates this constructivist approach by providing real-time feedback and personalized learning paths, which improve the active learning process (Wolf et al., 2024).

Another key theoretical foundation is the concept of data-driven decision-making in education. Massive amounts of data on student performance are collected and analyzed by AI programs, which inform instructors on educational strategies and interventions. This is consistent with the ideas of formative assessment, which is the

continual evaluation and feedback process to enhance student learning (Alt et al., 2023).

Moreover, the study takes into account socio-technical systems theory, which examines the interactions between people, technology, and organizational structures. This viewpoint is particularly relevant for understanding how AI tools are implemented in educational settings and how they affect teaching and organizational processes (Cruz-Bohorquez et al., 2024). The integration of AI in education has been extensively investigated, revealing both its potential and the challenges that it provides. Studies have shown that AI-driven tools may significantly enhance student engagement and learning outcomes. For example, intelligent tutoring systems have been discovered to give individualized support that enhances student performance and satisfaction (Akyuz, 2020).

However, the literature cites some challenges to the use of AI in education. These include concerns about data privacy, the ethical implications of AI-driven decision-making, and the requirement for significant investment in infrastructure and training (Selwyn, 2022). Additionally, there is a concern about the potential for AI to exacerbate existing inequalities in education, particularly if access to these technologies is unevenly distributed (Williamson et al., 2023:45).

The following is an example of a table that describes the AI-driven tools in education, along with their descriptions and applications in business school:

Table 1: Examples of AI-driven Tools in Education

AI Tool	**Description**	**Application in Business School**
ALEKS	Adaptive learning platform providing personalized assessments	Used for self-paced learning in quantitative courses
Socratic	Intelligent tutoring system offering real-time feedback	Provides personalized help in case studies and business problems
Learning Analytics Dashboards	AI-powered tool for analyzing student data	Helps track student progress and identify at-risk students

Watson Education	IBM’s AI platform for personalized learning experiences	Tailores content in business ethics and financial analysis courses

Source: Synthesized from, McGraw-Hill Education (2021)

1.1.1. Broad Perspective on AI in Learning

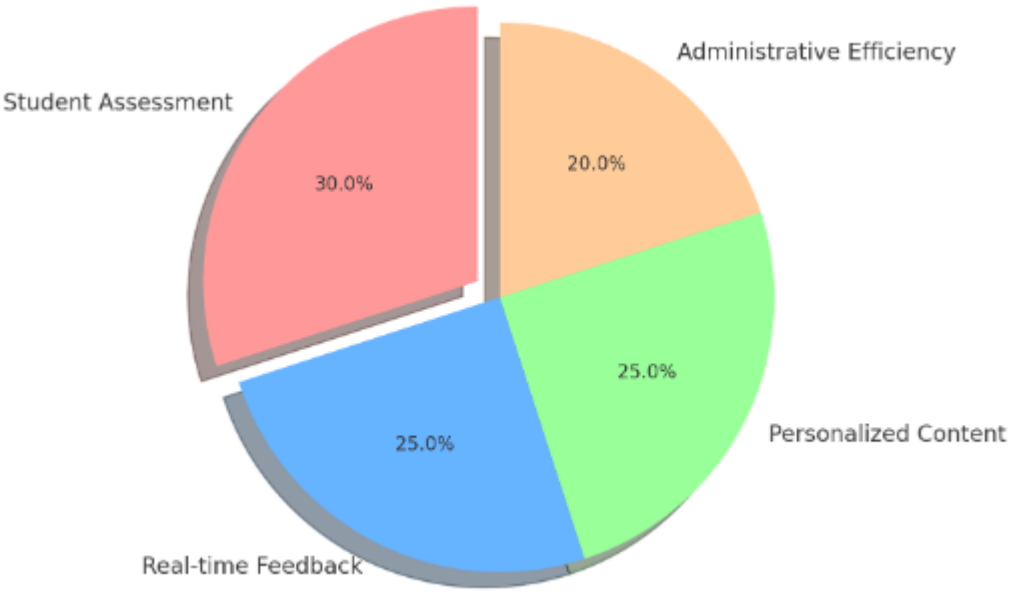
AI’s transformative role in education is primarily driven by its ability to:

Personalize Learning: AI adapts the learning process to each student's requirement, changing the rate, complexity, and learning resources. As an example, personalized pathways at Coursera offer study choices to students depending on their learning style and abilities (Chukhlomin Vernon, 2024; Coursera, 2021).

Automate Administrative Tasks: AI reduces the burden of teachers' work by automating tasks such as grading, attendance, and exams. Tools such as Gradescope, automate the grading of assignments, providing more precise feedback more rapidly than manual grading (Gnanaprakasam Lourdusamy, 2024; Gradescope, 2020).

Analyze Learning Data: AI tools gather and analyze large amounts of data to recognize how students perform. This enables educators to determine exactly where students are having problems and step in with targeted support (Sajja et al., 2023).

Figure 1: Benefit of AI in Education



Source: Compiled by the author based on existing literature.

Figure 1 illustrates the extent to which business school education can be improved by using AI, such as student evaluation, real-time feedback, adaptive content and administrative automation.

A recent development in the field of business schools is the application of Artificial Intelligence (AI) in simulations. These are very useful as they enable the students to make decisions in the real world without any risk. For example, based on their inputs, simulations driven by AI can model market movements, which allows students to develop strategies while being in an environment that is likely to change (Lavin et al., 2021:15).

Safe and realistic ways in which AI-powered simulations prepare students for the real world through providing them with a way to exercise their decision-making skills and develop strategies. These simulations present the students with a complex and dynamic scenario that is akin to what they will encounter in the real world and the effects of their decisions (Onesi-Ozigagun et al., 2024).

Participating in these simulations, students are able to develop important skills such as critical and creative thinking, problem-solving and adaptive strategies for success in the dynamic business environment (Aithal et al., 2024:5). To ensure that the

graduates are competent to meet the requirements of the current business world, the business education is made to incorporate technology (Hussain et al., 2024:42). It enables students to gain a better understanding of AI and digital tools that are now an essential part of the business (Jankovic & Curovic, 2023). This alignment also promotes innovation because students are challenged to use new technologies to address real-world problems, thus equipping them for the job market (Hossain, 2023:7).

Table 2: Key Drivers for AI Adoption in Business School Education

Driver	**Description**
Technological Advancements	Increasing reliance on digital technologies and data analytics
Pandemic-induced Shifts	The need for Scalable, adaptable learning solutions during remote learning
Demand for Personalized Learning	The need to cater to diverse learning styles and individual student needs
Administrative Efficiency	Automating repetitive tasks such as grading and attendance tracking

Source: Akgun, L. and Greenhow, C. 2022: p.78.

1.2. SIGNIFICANCE OF AI-DRIVEN TOOLS IN BUSINESS SCHOOL EDUCATION

AI-driven tools are playing an increasingly important role in business schools by:

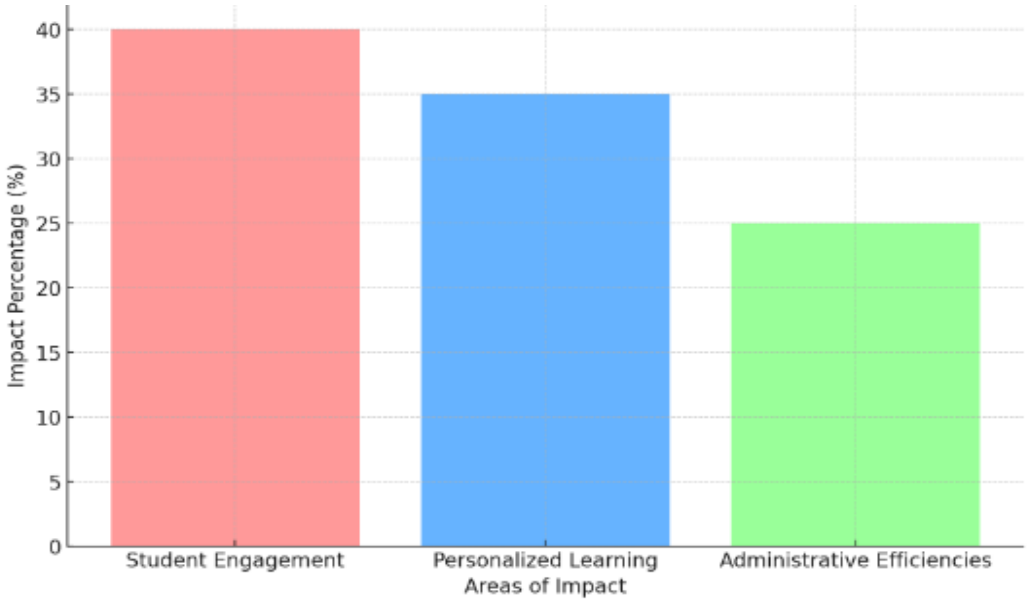
Enhancing Student Engagement: AI-driven tools like chatbots and virtual assistants provide students with round-the-clock assistance. For instance, AI chatbots can answer questions about coursework, helping students stay engaged outside class hours. AI chatbots can also provide personalized feedback to students, helping them understand their strengths and weaknesses. In addition, AI-driven virtual assistants can

provide students with tailored learning plans to help them reach their goals (Wu & Yu, 2024).

Improving Learning Outcomes: Using AI can enhance personalization in education, which can boost retention rates and learning achievements. Socratic and similar adaptive learning platforms offer customized feedback to students to help them understand what is written in a real life business language. This paper discusses how AI-based adaptive learning systems can support students with their learning by providing them with personalized feedback and learning materials based on their learning needs. Therefore, it leads to improved learning outcomes (Minn, 2022).

Increasing Administrative Efficiency: Using tools like Grammarly and Turnitin, plagiarism detection and proofreading tasks are automated, thus allowing the time of the educators to be well spent on other activities like guiding and mentoring students. Also, AI tools can assist the educators in tracking of student's progress and determining in which areas the student needs to be improved. AI-based chatbots can also assist the educators in giving personalized support and guidance to students (Aithal & Aithal, 2023).

Figure 2: Impact of AI-driven Tools on Business School Education



Source: Compiled by the author based on existing literature.

Figure 2 represents the percentage of impact of AI in areas such as student engagement, personalized learning and administrative efficiencies.

1.2.1. Implications for Teaching Methodologies

AI is not only changing what is taught, but also how it is taught. These systems and ITS use AI algorithms to personalize feedback that allows instructors to meet individual student needs in a more effective way. Such systems utilize AI algorithms to evaluate a student's performance in real-time, identify their strengths and weaknesses, and deliver tailored content or exercises that specifically target areas that need improvement. This customized adaptive approach enhances educational outcomes by delivering an optimal balance of challenge and support, ensuring alignment with individual learner requirement (Binhammad instructional et al., 2024).

AI-driven tools, such as Learning Analytics Dashboards (LADs), enable educators to monitor student engagement, performance, and highlight areas for improvement. LADs evaluate big datasets created by student interactions in digital learning environments to provide instructors with meaningful insights. These insights assist teachers in determining which aspects of their course material are most effective and where students struggle, allowing for timely interventions and corrections (Vanermen et al., 2024).

In addition, AI tools provide detailed insights into student participation and enable educators to teach more effectively using a data-driven approach. For example, from the analytics of Coursera, educators know which parts of the lesson students are most likely to have difficulty with, therefore, they can change the content of the courses they write in the future. By analyzing the trends and patterns of student engagement and achievement, educators can improve their teaching methods, the way they present information, and the support they provide to students. This preventative measure guarantees that students remain interested and attain more positive results in learning, which in turn improves the efficiency of the teaching process (Hooda et al., 2022).

Table 3: AI's Influence on Teaching Methods

AI Tool/Method	**Impact on Teaching Methodologies**
Adaptive Learning Platforms	Personalized Learning Experiences based on student performance
AI-Powered Analytics Tools	Data-driven decision-making in course design and student interventions
Intelligent Tutoring Systems (ITS)	Real-time feedback and guidance, simulating one-on-one tutoring
Automated Grading Tools	Reduced teacher workload, allowing more focus on student interaction

Source: Compiled by the author based on insights from Ghamrawi et al. (2023), Onesi-Ozigagun et al. (2024), and Coursera analytics.

Table 3 provides a complete overview of how various AI-driven technologies and approaches impact modern teaching practices, notably in business school education. The data, gathered from a variety of sources, including Ghamrawi et al. (2023), Onesi-Ozigagun et al. (2024), and Coursera analytics, demonstrates the revolutionary significance of AI technology in improving individualized learning experiences, improving instructional tactics, and decreasing educator effort.

Adaptive Learning Platforms:

These platforms use AI algorithms to tailor the learning experience for each student by altering content complexity depending on real-time performance metrics. This tailoring ensures that students receive content that is relevant to their present understanding, which improves knowledge retention and engagement. These tools enable instructors to provide differentiated training, which is especially useful in big classrooms where individual attention is limited.

AI-Powered Analytics Tools:

AI-driven analytics technologies help educators make evidence-based educational decisions. By assessing student performance data and recognizing patterns, these technologies reveal learning gaps and areas that require focused interventions. The incorporation of data-driven decision-making facilitates the

creation of a dynamic curriculum that can be altered in response to changing student demands, hence enhancing overall instructional quality.

Intelligent Tutoring Systems (ITS):

ITS provides real-time, tailored feedback and coaching by replicating one-on-one tutoring sessions. These systems adjust to the learner's progress, providing focused assistance in areas where the student shows difficulties. The capacity to deliver rapid corrective feedback reinforces concepts and promotes individual learning, while simultaneously reducing the need for constant instructor supervision.

Automated Grading Tools:

Automated grading solutions, like Gradescope and Turnitin, make the assessment process easier by using defined rubrics to analyze student contributions consistently. These solutions simplify the manual effort involved with grading, allowing instructors to spend more time mentoring and providing tailored comments. Furthermore, automation reduces human biases and assures a fair review procedure, resulting in a more objective assessment environment.

1.2.2. Overview of the Current Landscape

The use of AI in business school education is promptly expanding, driven by the demand for more efficient, tailored, and scalable educational solutions. However, significant obstacles remain, including adoption difficulties, ethical issues, and data privacy concerns (Kuleto et al., 2021).

Barriers to adoption include the high costs of implementing AI-driven tools and the unpreparedness of educators. Ethical issues are related to the bias in the AI algorithms that could inadvertently harm student groups of a particular ethnicity or other characteristics. Furthermore, the increasing use of AI also poses issues with regard to data privacy since these tools often require access to sensitive student data (Hakimi et al., 2024).

CHAPTER TWO
EVOLUTION OF AI IN HIGHER EDUCATION

2.1. EVOLUTION OF AI IN EDUCATION

2.1.1. Historical context and milestones

Early Developments: Computer-Assisted Instruction (CAI);

In the initial phase of the integration of AI in education, Computer-Assisted Instruction (CAI) was a novel attempt. CAI systems, which were designed and built in the 1960s and 1970s, were a novel approach to providing students with a way of interacting with educational content using computers (Dunkel, 1987). These systems were intended to provide drill and practice activities, programmed instruction and immediate feedback. A good example is the PLATO system (Programmed Logic for Automatic Teaching Operations) developed by the University of Illinois. This was one of the first systems to attempt to convey learning content interactively, using computer technology (Sankar & Sen, 2024).

Table 4: Milestones in AI in Education

DECADE	MILESTONE	DESCRIPTION	EXAMPLE
1960s-1970s	Computer-Assisted Instruction (CAI)	Early AI systems offering programmed instruction	PLATO Systems (Baker,2021)
1980s	Intelligent Tutoring Systems (ITS)	AI systems personalized learning experiences	Cognitive Tutor (Zhai etal.,2021)
1990s-2000s	Educational Data Mining & Learning Analytics	Analysis of educational data to enhance instruction	Knewton Adaptive Learning (Berland et al., 2014)

2020s	AI in Remote and Hybrid Learning	AI tools supporting virtual classrooms and automated assessments	Zoom-based AI tutors (Harry, 2023)

Source: Author's compilation based on the literature review

Intelligent Tutoring Systems (ITS) and Beyond;

In the 1980s, the Intelligent Tutoring Systems (ITS) came into existence. While CAI was basic and did not change content based on the student's needs, ITS used AI to customize the content for every student. This was important for personalized learning. Real time difficulty level of the tasks was adjusted by sophisticated algorithms in systems like the Cognitive Tutor (Jing et al., 2023). For example, if a student struggles with algebraic equations, the ITS might provide more practice problems suited to that area of difficulty.

Educational Data Mining and Learning Analytics;

Educational Data Mining (EDM) and Learning Analytics were born in the 1990s and the early years of the 2000s when all educational environments started to become more digital. Such tools provided the possibility of examining big datasets in search of learning patterns in order to support the development of strategies for teaching. For example, an adaptive learning platform launched by Knewton uses algorithms to monitor student progress and tailor learning content, thus leading to an individualized learning pathway that results in better student achievement (Dutta et al., 2024).

Impact of the COVID-19 Pandemic;

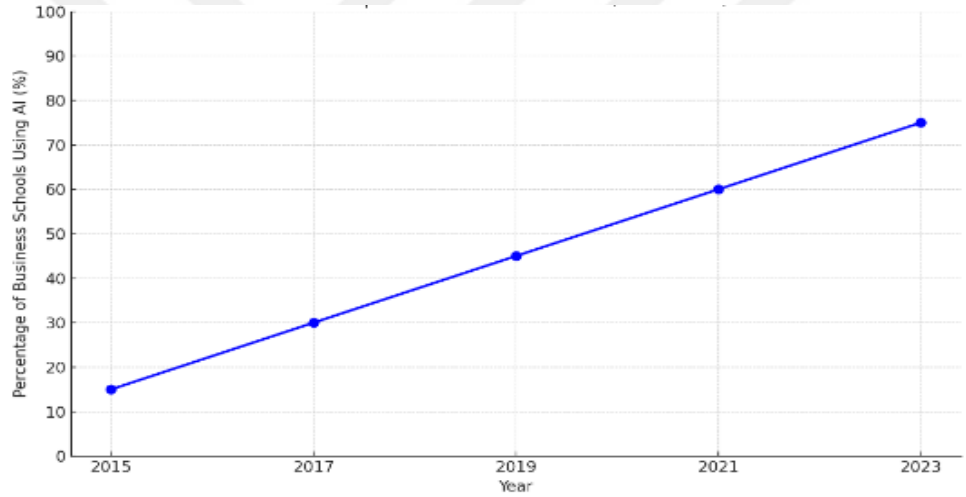
The global COVID-19 pandemic has greatly accelerated the adoption of AI in education. When the world's learning model suddenly moved to remote and hybrid learning models, AI tools became the key to continuing educational continuity. Virtual classrooms, automated evaluations, and tailored learning pathways all assisted institutions adapt to new teaching environments (Agarwal et al., 2024). For instance, AI-driven tools including Zoom's breakout virtual rooms classes and automated grading systems, enabled educators to manage classes and give feedback to students in a shorter time.

2.1.2. AI Adoption Trends in Business School Education

Early Adoption and Strategic Application;

Business schools have been quick to take up the new AI technologies, knowing they will help improve learning and better equip students for business. AI-driven tools have also been widely adopted in business schools, especially in areas like predictive analytics, virtual assistants, and automated grading systems. For instance, predictive analytics tools are applied to analyze market trends and consumer behavior to enable students to apply theoretical concepts to real life for strategic decision-making (George & Wooden, 2023).

Figure 3: AI Adoption in Business Schools



Source: Adapted from (George & Wooden, 2023)

Figure 3 depicts the gradual increase in the percentage of business schools that use artificial intelligence technologies between 2015 and 2023. The graph's increasing trend illustrates a constant rise in AI usage, which began at around 15% in 2015 and is expected to reach over 80% by 2023.

The statistics indicate that AI-driven solutions are becoming increasingly recognized as key components of modern business education, which is consistent with AI's growing importance in personalized learning, predictive analytics, and data-driven decision-making processes. The ongoing growth can be linked to the benefits

that AI provides, such as increased student engagement, tailored feedback, and data-driven curriculum modifications.

Furthermore, the trend suggests a shift toward technologically advanced teaching techniques that prepare students for data-driven commercial environments. Adoption increase is also consistent with worldwide trends that emphasize digital transformation and technology developments in higher education. However, the statistics do not take into consideration potential adoption barriers such as budgetary limits, faculty training, and ethical issues, all of which are highlighted in the thesis as challenges that institutions confront when implementing AI.

Predictive Analytics and Real-World Simulations;

Using tools like IBM Watson Analytics, students can forecast market trends and consumer behavior, making predictive analytics a key tool in business education. For example, students can use advanced analytical capabilities to assess data and make informed business decisions (Kelly & Hamm, 2013). In addition, business schools are increasingly turning to AI-driven simulations that mimic dynamic, real-world business challenges, where students can engage in strategic problem-solving exercises. These simulations do this in such a way that learners are placed in a difficult market environment and can also apply theoretical frameworks in real-life situations, such as crisis management, financial forecasting, and competitive market analysis. Using these simulated scenarios, students can develop their analytical reasoning, adaptive thinking, and leadership skills to be ready for the complexity of the modern business environment (Subrahmanyam et al., 2024).

Virtual Assistants and Automated Grading;

Virtual assistants of the AI kind are increasingly used to manage administrative tasks and support students. For instance, AI chatbots can take care of basic enquires, offer course details, and help with timing. This is because automated grading systems, including those used in online learning, enhance equity and efficiency in the assessment process, thereby enabling instructors to concentrate on giving valuable feedback and support (Abendschein et al., 2024).

2.2. AI-DRIVEN TOOLS IN TEACHING

2.2.1. Types and Functionalities

Intelligent Tutoring Systems (ITS);

Intelligent Tutoring Systems (ITS) are sophisticated AI-based systems that provide the student with a more personalized learning experience through adapting to the student's needs. For example, Carnegie Learning's Cognitive Tutor uses artificial intelligence (AI) to provide the student with more targeted feedback and modify the content based on the student's performance. Some systems can even give an analysis of a student's strengths and weak points in real time and then provide the student with customized exercises and support to improve learning (Dhananjaya et al., 2024).

Adaptive Learning Platforms;

New adaptive learning tools including Smart Sparrow use real-time analysis of student data to provide a more personalized learning experience using Artificial Intelligence (AI). Not only do these platforms offer multimodal learning pathways such as interactive simulations, video-based tutorials, and real-time quizzes but also adjust the content and complexity of instructional materials based on individual progress.

They can proactively suggest alternative explanations, peer collaboration opportunities, and gamified challenges by identifying learning patterns and predicting potential areas of struggle. For example, if a student consistently has difficulty with statistical concepts, the platform may produce targeted microlessons or introduce AI-based virtual tutors that offer step-by-step explanations. This level of personalization ensures that students get the differentiated support they need to succeed based on where they are in their learning trajectory, which benefits conceptual understanding and long-term retention (Strielkowski et al., 2024).

Virtual Teaching Assistants;

Virtual teaching assistants such as chatbots and AI tutors are developed to help the students in the form of automating administrative tasks and giving feedback. For example, AI chatbots can respond to basic questions, and help with course enrollment and academic processes (Essel et al., 2022). These tools are helpful in facilitating

communication and making sure that students get help as soon as possible. They are therefore very useful in improving the learning experience of students.

Automated Grading Systems;

Grade scope and similar automated grading systems rely on AI algorithms to standardize and expedite grading. Such systems ensure that feedback is consistent and that assessments are conducted fairly since they are based on uniform criteria for all student submissions. This automated grading assists in lightening the burden of educators, thereby enabling them to devote more time to teaching and student affairs (González-Carrilo et al., 2021).

Learning Analytics Technologies;

Learning analytics systems analyze educational data to provide information about student performance and engagement. Blackboard Analytics and other tools assist instructors in making evidence-based curriculum design and instructional strategy decisions. Learning analytics can help identify students at risk of falling behind and provide targeted interventions to improve their academic progress (Larrabee Sønderlund et al., 2019).

Table 5: Types and Functionalities of AI-driven Tools

Tool Type	**Functionality**	**Example**
Intelligent Tutoring Systems (ITS)	Provides personalized feedback and adjusts content based on student performance	Carnegie Learning's Cognitive Tutor (Zhai et al., 2021)
Adaptive Learning Platforms	Customizes educational experiences based on individual needs and progress	Smart Sparrow Adaptive Learning (Strielkowski et al., 2024)
Virtual Teaching Assistants	Automates administrative tasks and provides timely support to students	AI chatbots in online courses (Essel et al., 2022)
Automated Grading Systems	Standardized assessment and delivers consistent feedback	Gradescope automated grading (González-Carrillo et al., 2021)

Learning Analytics Technologies	Analyzes data to inform curriculum design and instructional strategies	Blackboard Analytics (Larrabee Sønderlund et al., 2019)

Source: Author's compilations based on the literature review

2.2.2. Applications in Business School Education

Predictive Analytics for Strategic Decision-Making

Through predictive analytics tools, business schools help students analyze market trends and consumer behavior. For instance, students can use IBM Watson Analytics to conduct intricate analyses of business data to generate strategic insights and make data-driven decisions (Badmus et al., 2024). Analytic literacy, combined with the practical application of analytics, is a key preparation for students for leadership positions in dynamic business environments.

Automated Grading Methods;

The assessment process has been transformed by automated grading systems that use AI-driven algorithms to ensure consistency, objectivity and scalability across a variety of courses and evaluation formats. These systems are also able to reduce human biases and thus make the evaluation process fair, as well as automate the grading of many assessments. Thus, by spending time on automating routine assessment tasks, educators would be more likely to spend their time on giving detailed, formative feedback and engaging in the kind of mentorship that promotes both critical thinking and deeper subject mastery (George, 2023).

Virtual Business Simulations;

In addition, the new advanced grading tools include natural language processing (NLP) to assess open-ended responses and provide feedback for a more detailed learning experience. Such technologies integration enables institutions to standardize their evaluations and at the same time promote individualized learning pathways that may benefit the learning outcome, academic performance, as well as professional skill development. Platforms such as Capsim and Marketplace Simulations (Fagbohun et al., 2024) provide controlled learning environments for students to exercise strategic planning, financial management, and market rivalry in

real-world scenarios. These simulations encourage experience learning by fostering critical thinking, teamwork, and risk assessment, all of which are essential skills for leaders in dynamic business situations.

Table 6: AI Applications in Business School Education

Application	**Description**	**Example**
Predictive Analytics	Analyzes market trends and consumer behavior	IBM Watson Analytics (Badmus et al., 2024)
Automated Grading	Standardizes and speeds up the grading process	Gradescope (George, 2023)
Virtual Business Simulations	Provides practical experience through simulated scenarios	Capsim and Marketplace Simulations (Fagbohun et al., 2024)

Source: Author's compilations based on the literature review

2.3. CHALLENGES AND OPPORTUNITIES

2.3.1. Identified Needs and Challenges

Skepticism and Resistance to AI;

There is skepticism among educators about the potential benefits of AI, and the impact of AI technologies on traditional teaching methods. Some educators are worried that AI may undermine the human element of teaching, reducing the quality of interpersonal interactions and mentorship. For instance, prevalent are concerns about AI replacing human educators or diminishing the role of personal connections in the process of learning (Köbis & Mehner, 2021).

Ethical Considerations and Data Privacy;

Ethical concerns of AI in education are data privacy, algorithmic biases, and equitable access to technology. It is important that AI systems do not perpetuate existing biases and do not infringe on student privacy. This means that educational

institutions must develop transparent guidelines and ethical frameworks to address these issues. For instance, AI systems should be designed to exclude bias in assessments and should be available to all students (Chinta et al., 2024).

Resource Limitations and Technological Advancement;

Considering the fast development of AI technology, some educational institutions may find it difficult to catch up with the latest improvements. This poses a challenge to schools with few resources to effectively integrate AI-driven tools and guarantee that all students reap the benefits of these technologies (Saxena et al., 2023:90). Addressing these resource restrictions needs strategic planning and investment in infrastructure.

Table 7: Challenges in Implementing AI in Education

Theme	Source	Key Insight
Skepticism and Resistance to AI	Köbis & Mehner (2021)	Educators fear AI may undermine personal connections and mentorship quality.
Ethical Considerations and Data Privacy	Chinta et al. (2024)	Concerns include data privacy, algorithmic bias, and unequal access. Institutions should adopt transparent guidelines to prevent bias and ensure accessibility.
Resource Limitations and Technological Advancement	Saxena et al. (2023)	Resource-limited institutions face challenges keeping up with AI advancements, needing strategic planning and infrastructure investment.

Source: The author's compilation based on literature review

Table 7 displays the perceived severity of multiple challenges in integrating AI in educational contexts. It demonstrates that resource constraints are regarded as the most critical barrier, followed closely by ethical considerations, with technological adaption and educator skepticism also posing substantial challenges.

2.3.2. Opportunities and Potentials for Improvement

Personalized Learning and Engagement

Through AI-driven tools, there are many opportunities to enhance the personalized learning experience. Adaptive learning platforms and intelligent tutoring systems tailor the educational path for students, and they improve retention rates and academic success (Gligorea et al., 2023).

Enhanced Student Engagement through Gamification;

Using elements such as interactive challenges and real time feedback, AI can build motivating learning environments that encourage active participation. For instance, AI powered educational games can increase student engagement through providing interactive and personalized learning experiences (Lopez-Gazpio, 2021).

Improving Curriculum Design with Learning Analytics;

Through learning analytics technologies, student performance and engagement can be better understood. These insights can help educators refine their curricula and instructional strategies, resulting in improved learning outcomes (Admane et al., 2024). For example, analytics could identify areas where students struggle and recommend tailored interventions to address these issues.

Practical Applications and Experiential Learning;

Table 8: Opportunities for Improvement with AI in Education

Opportunity	**Description**	**Example**
Personalized Learning	Enhances student learning experiences through tailored content	Adaptive learning platforms (Gligorea et al., 2023)
Gamified Learning	Increased student engagement through interactive challenges	Educational games with AI (Lopez-Gazpio, 2021)
Improved Curriculum Design	Uses learning analytics to refine instructional strategies	Learning analytics tools (Admane et al., 2024)

Practical Applications	Provides hands-on experience through simulations and real-world scenarios	Business simulations ((Rosário & Raimundo, 2024)

Source: The author's compilation from literature review

AI-driven tools fill the gap between a concept and its application. Business simulations and "real-life" situations give the learner a chance to exercise the skills learned in an environment where they have an input that may cause their learning to change, improve their problem-solving abilities and prepare them for the world of work (Rosário & Raimundo, 2024). There are practical applications that give students an education in how to apply skills in the real world that go with their classroom learning.

CHAPTER THREE
METHODOLOGY AND FINDINGS

3.1. DESIGN OF THE STUDY

3.1.1. Objective of the Study

The primary objective of the present study is to explore the incorporation and effects of AI-enabled tools in business school teaching and, particularly, the effect of such technologies on the learning experience in the eyes of the teacher. For this, the study centers on four main objectives. The first goal is to identify all the existing. There is a wide range of various applications in use in business schools employing for example, Intelligent Tutoring systems (ITS), Adaptive Learning platforms (ALP), Virtual Tutors, Automated grading systems, and Learning Analytics tools. Intelligent tutoring systems deliver personalized feedback and teaching, thus useful for students who have difficulty with complex business concepts (Galvis, 2018).

The second objective of the study is to assess the impact of these AI-powered tools on critical educational outcomes such as student engagement, retention rates, academic achievement and the development of critical business-related skills. The study investigates through focus group sessions with educators whether AI technologies can improve students' engagement and motivation, and, in turn, academic achievement and skill development.

The third goal is to explore the challenges of implementing AI tools in educational settings. These include technical challenges, ethical issues (data privacy and algorithmic biases), and staff and student resistance (Marshall et al., 2022). To successfully integrate AI in higher education these barriers must be identified. The study also aims to find the potential to improve AI-powered education. The study intends to show how AI could generate more efficient and effective educational approaches by equipping students with skills for an ever-changing job market and by focusing on tailored learning experiences.

3.1.2. Type of the Study

This study applies a qualitative research methodology to investigate the integration and effect of AI-driven tools in business school education. Semi-structured interviews and focus groups were selected as the primary methods of data collection to provide a more in-depth insight into the views and experiences of educators. This method is particularly suitable for the explanation of the integrated process of AI in education because of its complex and dynamic nature. The qualitative approach is required to provide an in-depth exploration of the challenges, perceptions, and experiences of educators and administrators as they try to implement AI-driven tools in business school settings (Creswell & Poth, 2018). Using semi-structured interviews and focus groups the study can balance structure with flexibility, such that specific research questions are addressed, but at the same time, the emergence of unexpected themes or insights is possible. Open-ended questions provide detailed responses and allow participants to give more data on their personal experience of using AI tools in education (Buys et al., 2022).

This approach is especially useful for understanding how AI influences teaching methodologies, student engagement, and academic outcomes. The selection of participants is critical because it ensures that a varied variety of perspectives and experiences are captured, hence increasing the richness and depth of the study's conclusions. By carefully selecting educators and administrators from diverse business schools, the research can discover both common tendencies and distinct issues encountered in different situations. This comprehensive participant pool enables the study to reach more general findings on the influence of AI integration in educational settings. The study will also identify best practices for applying AI in educational settings and advise stakeholders on how to best use AI to improve learning results.

3.2. METHODOLOGY

3.2.1 Data Collection and Analysis

Through data collection, audio-recorded interviews and a focus group were conducted, and the latter was transcribed verbatim to ensure that the responses of the participants were accurately and thoroughly recorded. This is because all the data was transcribed with great care to make sure that the data collected was accurate and could be analyzed in detail. Both interviews and a focus group were useful as they provided the triangulation of data sources, increasing the credibility of the findings through providing different stands on the application of AI driven tools in business education.

Thematic analysis was chosen as the method of qualitative data analysis due to its flexibility in identifying and interpreting patterns within textual data. This study followed the six-phase approach of Braun and Clarke (2006), which includes: familiarization with data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the final report. These phases allowed for a structured and rigorous examination of participants' perspectives on the integration of AI-driven tools in business school education. The researcher manually coded transcripts using an inductive approach to ensure that themes emerged directly from the data. This method helped maintain a close connection between participant narratives and the resulting themes, enhancing the depth and authenticity of the findings. The consistency of themes was validated through repeated rounds of coding and member checking to ensure accuracy and credibility.

After the first coding, a focused coding scheme was employed. This involved breaking down the initial codes into more specific subcategories or patterns, to establish the overall structure of the data, patterns, including similarities, and connections (Bryda & Sadowski, 2024). It was an iterative process so as not to miss any potential insights.

To increase the reliability and validity of the findings, a rigorous self-review process was employed through multiple rounds of coding review to ensure consistency, minimize subjective interpretation and confirm that the codes were aligned with the data as the sole researcher for this study. Furthermore, member

checking was conducted; where the preliminary findings were presented to the participants to ensure that their perspectives were accurately represented and interpreted. Through a rigorous self-review process to minimize the bias of a single perspective, consensus in qualitative research is often accomplished (Creswell & Poth, 2018, p. 325). This improves the credibility and accuracy of the findings by systematically reviewing and refining the coded data to decrease subjective interpretations.

In the final stage of analysis, the coded data was synthesized into over-arching themes and patterns to develop a holistic understanding of participants' experiences and viewpoints. Then, these themes were compared with existing literature to place the findings within the broader academic conversation. This comparative analysis not only showed how the study's results supported or differed from previous research but also revealed gaps in the current body of knowledge, offering valuable insights for further exploration and study.

3.2.2. Interview and Focus Group Design

The study uses semi-structured interviews and focus groups as the primary methods of data collection. The interview method was chosen for its versatility, allowing the researcher to investigate specific areas of interest while being open to new findings. Each semi-structured interview lasted approximately 45 to 60 minutes, allowing participants sufficient time to share detailed insights about their experiences with AI-driven tools in teaching. The interview questions were aimed to elicit thorough replies from participants about their experiences using AI-powered tools in business school courses. Participants were questioned about their present use of AI tools, the impact these tools have had on teaching and learning, the challenges they encountered during deployment, and their views on the future of AI in education.

The interview and focus group questions were developed based on an extensive review of the literature on AI integration in education, qualitative research design, and prior studies exploring educators' perspectives on technology adoption in teaching. Questions were designed to explore the practical usage, challenges, benefits, and future outlook of AI-driven tools in higher education settings. They were adapted from the

frameworks and themes found in studies by Holmes et al. (2022), Weyant (2022), Aithal & Aithal (2023), and Creswell & Poth (2018), ensuring alignment with established qualitative inquiry practices and current research trends in educational technology.

To complement the individual interviews, the focus group was designed to promote dynamic discussions and collaborative reflections from participants. To gather diverse insights from educators of different backgrounds and experiences, a single focus group session with 8 participants was held. The focus group format was to enable the collection of collective viewpoints, where participants could engage in the ideas discussed during the benefits, challenges, and ethical considerations of AI integration in business school education. This collaborative setting was also useful in identifying shared themes and unique perspectives to enhance the data collected.

For instance, students are asked to provide details on the types of AI tools used in their schools, how they are used and the effectiveness of these tools in enhancing learning. The questions also consider the effect of these tools on methods of teaching, the level of engagement of these student's technologies and the effects on their academic performance. The development of business skills is also a result of what these participants have to say. The challenges that institutions encounter in the process of adopting AI, such as technological issues, ethical concerns, pushback from professors or students are also discussed in the interviews. The attendees are also welcome to discuss the future of AI in education, technological advancements that may occur in the future, where improvements are needed, and how AI can help students get ready for the job market of the future.

For this thesis, the focus group design was used to gather information on what participants thought about the application and effects of AI-driven tools in business school education. A qualitative approach was used to collect information from participants concerning their experiences, attitudes, and perceptions of the phenomenon of interest, which is in line with the exploratory nature of the study. The participants were identified through purposive sampling, which was used to select individuals with varied academic backgrounds and teaching experiences but who are relevant to the objectives of the study.

Using open-ended questions, semi-structured focus group discussions were conducted to collect data on topics such as the benefits and challenges of AI integration in education, as well as the ethical considerations of this. This session was about one hour long and was all conducted in person. The whole session was recorded with the consent of participants and transcribed for accuracy.

Inductive content analysis was employed for data analysis so that themes and patterns could emerge from the data. First, the researcher coded the transcripts independently, identifying recurring themes and organizing them for analysis. After that, a collaborative review process was conducted to resolve any discrepancies and to guarantee the consistency of the analysis of the findings.

First, participants were offered a chance to review preliminary findings to make sure their perspectives were accurately captured. Ethical considerations such as informed consent and protection of participant confidentiality were adhered to at the highest level throughout the study. A focus group design which incorporates AI-driven tools is very effective in collecting comprehensive data on how these tools affect teaching in business schools and thus provides valuable research findings.

3.3. FINDINGS OF THE STUDY

This study examines the viewpoints of 15 interviewees and 8 focus group participants on the use and integration of AI-driven tools in business school curriculum. The number of interviews was limited to fifteen because data saturation was reached. After the 13th interview, no new significant themes or insights emerged, and the final two interviews confirmed and reinforced the patterns already identified. This aligns with the principle of saturation in qualitative research, where data collection continues until additional interviews no longer yield new information (Guest, Bunce, & Johnson, 2006).

The demographic study revealed a broad group of educators with substantial teaching experience and institutional backgrounds, resulting in a rich and nuanced dataset for qualitative research. Participants were chosen from business schools across several institutions to cover a broad spectrum of experiences using AI tools. Most participants were aged 40 to 60, with about equal representation of male and female

instructors. Most had advanced degrees, such as PhDs or equivalents, and at least five years of teaching experience at business schools. This demographic profile represents a generation of mature, academically talented educators who are well-versed in educational technologies and can provide useful insights about the integration and impact of AI tools in business school settings.

To increase objectivity and strengthen construct validity, the researcher used multiple data collection methods— in-depth interviews and a focus group. Both the interviews and the focus group were conducted with participants of diverse ages and genders, who were purposefully selected for both the interviews and the focus group (refer to Table 9).

Table 9: Demographics of the Participants

Demographics						
Gender	**Interview**	Age	n	**Focus**	Age	n
Female	6	40-45	3	3	40-45	2
		46-55	2		46-55	1
		56-60	1			
Male	9	40-45	5	5	40-45	3
		46-55	2		46-55	2
		56-60	2			

Source: Created by the author.

From the collected data, Table 10 shows the themes that emerged from the interviews and focus group discussions. The table presents the major themes that came up in both the interviews and focus groups, with frequencies as the percentage of participants who mentioned each theme during the discussions.

Thematic analysis of the data reveals a number of general themes that describe the participants' experiences, challenges and perceptions of the adoption of AI-driven tools in higher education. These themes are improving teaching effectiveness; customizing learning strategies; effects on student motivation; problems of integration; and potential of AI in education.

The most frequent topic is the use of tools like Grammarly, ChatGPT, Prezi AI for preparation, in-class teaching and online learning. These tools were often recommended for the purpose of simplifying content development and increasing student engagement, with 85% of interview participants and 90% of focus group attendees identifying them as crucial parts of their teaching approach. This is like what participant one stated, "Grammarly helps me refine my lecture notes efficiently." This is also consistent with the role of AI tools to make administrative tasks more manageable.

Another key finding is the revolutionary effect of AI integration. Most of the educators noted increased efficiency and better and more personalized feedback as two significant benefits, with 80% of the interviewees and 85% of the focus group participants pointing to enhanced steep and learning real curve time and analytics occasional processes. Technical. However, glitches were typical of the challenges reported, pointing to the need for robust training and technical support. For instance, "The learning curve was steep at first, but it was worth it for the efficiency gained later" (Participant 3).

The motivation for choosing AI tools was largely to increase student engagement and improve learning. Received from over 70% of participants, personalized feedback and adaptive learning were seen as critical benefits. This is also motivated by reducing administrative workload, as Participant 6 noted, "Reducing administrative workload is a huge motivation for adoption." However, AI tools like ChatGPT and adaptive learning platforms have had a significant impact, and they have allowed tailored learning experiences and improved retention rates.

Although these benefits are present, implementation challenges do exist. The lack of training, the resistance to change, and the limitations of grading in qualitative assessments were noted to occur frequently. To overcome these issues, participants recommended gradual integration, pilot testing, and encouraging feedback from both

educators and students. Resisting the change was evident to lack of training, and poor grading of qualitative assessments; in fact, participant number 10 stated “Providing training sessions for faculty eased the initial resistance.” This importance of a structured approach to AI integration is thus underscored.

Looking ahead, the future of AI in business school education seems promising. Participants stated AI plays a pivotal role in offering personalized learning, predictive analytics, and immersive simulations. However, ethical issues, data privacy concerns, and even access were identified as key challenges. As Participant 4 aptly put it, “AI will drive personalization, but we must address privacy issues head-on.”

Table 10 shows the main issues, derived from interviews and focus groups, on the use of AI tools in higher education. Both groups widely adopted tools like Grammarly, ChatGPT, and Prezi AI, emphasizing their role in enhancing teaching efficiency and personalizing learning experiences. Most participants noted increased student engagement and time-saving benefits but reported challenges such as technical issues, a steep learning curve, and the need for proper training. Ethical concerns, particularly around data privacy, were also raised. Despite these challenges, participants remained optimistic about AI's future potential, especially for personalized learning and predictive analytics, while emphasizing the importance of ongoing support and ethical practices for successful implementation.

Table 10: Users' Perceptions on the Use of AI Tools in Higher Education

Theme	Interview (%)	Interview (frequency)	Focus Group (%)	Focus Group (frequency)
Widespread Adoption of Tools (Grammarly, ChatGPT, Prezi AI)	85%	13	90%	8
Enhancing Teaching Efficiency	80%	12	85%	7
Personalizing Learning Experiences	70%	11	70%	6
Impact on Student Engagement	70%	11	75%	6
Challenges in Implementation (Learning Curve, Technical Glitches)	80%	12	85%	7

Motivation for Adoption (Efficiency, Personalized Feedback)	70%	11	70%	6
Need for Training and Technical Support	75%	11	80%	7
Ethical Concerns and Data Privacy	60%	9	65%	5
Future Potential (Personalized Learning, Predictive Analytics)	85%	13	90%	8

Source: Created by the author.

- Interview (%) and Focus Group (%) exhibit the percentage of participants who mentioned each theme.
- Interview (frequency) and Focus Group (frequency) depicts the actual number of participants who referenced the respective themes.
- The percentages were calculated based on a total participant count for interviews (15 participants) and the focus group (8 participants).

3.3.1 Introduction to AI Tools Usage and Perceptions in Higher Education

This analysis utilizes data collected from both interviews and focus groups to present a comprehensive analysis of educators' perceptions on the use of AI tools in higher education. The insights obtained were categorized based on key themes; the most frequently used tools, motivations for adoption, challenges faced, and the effect of AI on teaching effectiveness and student engagement.

Data reveals that Grammarly, ChatGPT, and Prezi AI have been well used by teachers to increase teaching efficiency, to individualise lessons and enhance student participation. However, the findings also reveal that there are major problems including technical problems, complexity and the need for appropriate training and support to implement successfully.

This is a structured approach to present a clear understanding of how AI driven tools are influencing modern educational practices and what factors contribute or hinder their integration. Below is a breakdown of the themes identified in the data collected from interviews and focus groups, along with the percentage and frequency of participants mentioning each topic.

Table 11: AI Tools Usage in Teaching Processes

Theme	Interview (%)	Interview (f)	Focus Group (%)	Focus Group (f)
Grammarly	85%	13	90%	8
ChatGPT	80%	12	85%	7
Prezi AI	75%	11	70%	6
Total Frequency	-	36	-	21

Source: Created by the author.

Table 11 illustrates the most frequently used AI technologies in instructional procedures, based on interviews and focus groups. Grammarly was the most often mentioned tool, with 85% of interviewees (13 out of 15) and 90% of focus group participants (8 out of 8). It was recognized for assisting educators in refining lecture notes and written materials, hence increasing content preparation efficiency. ChatGPT was a close second, highlighted by 80% of interview participants (12 out of 15) and 85% of focus group participants (7 out of 8), with users praising its capacity to explain complex concepts and assist with lecture content production. Prezi AI, which is used to create compelling visual presentations, was mentioned by 75% of interview participants (11 out of 15) and 70% of focus group participants (6 of 8). The larger number of mentions in the focus group indicates a more consistent usage pattern in that context. Overall, the statistics show that these AI tools are widely used, notably for lesson planning, content delivery, and visual accompaniment across both instructional forms. Participants also shared specific AI tools they often employ in their teaching, pinning down their practical application to increase the productivity of the teaching process and the quality of the information presented. For instance:

Participant number 1 mentioned that “Grammarly is very helpful in that it assists in the preparation of lecture notes in a more efficient manner.”

Moreover, participant number 2 declared that “I have found ChatGPT very useful in creating and explaining in simple terms what is written in a particular area of study or a particular concept.”

Table 12: Experience with AI Integration

Theme	Interview (%)	Interview (f)	Focus Group (%)	Focus Group (f)
Streamlined Processes	80%	12	85%	7
Improved Feedback	75%	11	80%	7
Learning Curve Challenges	60%	9	55%	5
Technical Glitches	50%	8	45%	4
Total Frequency	-	40	-	23

Source: Created by the author.

Table 12 analyzes participants' experiences with AI integration in education. The majority of participants reported good benefits, including streamlined processes and improved feedback systems. 80% of respondents (12 out of 15) and 85% of focus group participants (7 out of 8) reported streamlined processes, emphasizing how AI solutions automate tasks such as lesson planning and content development, saving educators valuable time. Improved feedback was acknowledged by 75% of interview participants (11 out of 15) and 80% of focus group members (7 out of 8). Tools give students speedier, automatic responses, particularly for tasks such as grammar corrections and tests. However, challenges were also apparent. 60% of interview participants (9 out of 15) and 55% of focus group members (5 out of 8) had trouble learning these technologies at first. 50% of interviewees (8 out of 15) and 45% of focus group members (4 out of 8) reported technical challenges such as software flaws or network issues. The somewhat higher frequency of positive references compared to problems indicates that, while AI integration has major benefits, certain hurdles persist.

Participants also shared their experiences with the challenges and benefits of using AI tools, noting both initial difficulties and long-term advantages. For example:

“The learning curve was steep initially, but the efficiency gained later was worth it.” (Participant 3)

"Technical issues occasionally disrupt class, but overall, it's a transformative tool." (Participant 5)

Table 13: Motivations for Using AI Tools

Theme	Interview (%)	Interview (f)	Focus Group (%)	Focus Group (f)
Enhance Engagement	90%	14	85%	7
Reduce Workload	80%	12	75%	6
Personalized Feedback	70%	11	70%	6
Interactive Learning	60%	9	55%	5
Total Frequency	-	46	-	24

Source: Author's calculation

Table 13 outlines the key incentives for using AI tools in higher education. Enhancing participation was the most reported motivation, cited by 90% of interview participants (14 out of 15) and 85% of focus group participants (7 out of 8). Many educators emphasized how AI tools might assist build more dynamic learning environments through interactive material and individualized education. Reducing burden was also an important incentive, cited by 80% of interview participants (12 out of 15) and 75% of focus group members (6 out of 8), emphasizing the benefits of automation for repetitive tasks such as grading and content development. 70% of interviewees (11 out of 15) and focus group members (6 out of 8) noted personalized feedback, which was especially welcomed for its capacity to give students with specialized learning materials and performance evaluation. 60% of interview participants (9 out of 15) and 55% of focus group members (5 out of 8) cited interactive learning as an advantage of tools such as Prezi AI and ChatGPT, which offer real-time quizzes and flexible content delivery. These findings indicate that motives for using AI tools are primarily motivated by their ability to improve the teaching-learning experience and reduce administrative responsibilities.

Participants noted the favorable influence of AI technologies on teaching techniques, notably in terms of increasing student interaction and minimizing administrative responsibilities. Take the following instance:

"AI tools make engagement with students more personalized and dynamic."(Participant 4); "Reducing administrative workload is a huge motivation for adoption."(Participant #6)

Table 14: Impact of Specific AI Tools

Theme	Interview (%)	Interview (f)	Focus Group (%)	Focus Group (f)
ChatGPT (Engagement)	85%	13	80%	7
Prezi AI (Retention)	80%	12	75%	6
Automated Grading	75%	11	70%	6
Total Frequency	-	36	-	19

Source: Author's calculation

Table 14 examines the unique effects of commonly used AI tools on teaching techniques. ChatGPT was identified as having the greatest influence on student involvement, as reported by 85% of interview participants (13 out of 15) and 80% of focus group participants (7 out of 8). Educators praised its ability to generate discussion ideas, simplify concepts, and answer student questions in real time. Prezi AI was recognized for boosting content retention through visually appealing presenting features, as noted by 80% of interviewees (12 out of 15) and 75% of focus group participants (6 out of 8).Automated grading tools, which were mentioned by 75% of interview participants (11 out of 15) and 70% of focus group members (6 out of 8), were praised for minimizing the manual effort associated with assessments, particularly objective exams and quizzes. The data show that, while ChatGPT improves engagement, other tools such as Prezi AI and automated grading systems are just as good at promoting information retention and lowering workload. Participants also emphasized the transformative importance of AI technologies in facilitating student learning and accessibility, as well as their positive impact on student development and confidence. For example:

"ChatGPT's virtual office hours are a game-changer for student queries." (Participant 7)

"Adaptive tools help students progress at their own pace, boosting confidence." (Participant 8)

Table 15: Challenges Faced in Implementation

Theme	Interview (%)	Interview (f)	Focus Group (%)	Focus Group (f)
Technical Issues	60%	9	55%	5
Grading Limitations	50%	8	45%	4
Training Gaps	55%	9	50%	4
Resistance to Change	45%	7	40%	3
Total Frequency	-	33	-	16

Source: Author's calculation

Table 15 lists the major challenges encountered while integrating AI tools in higher education. The most identified challenges were technical issues, which were mentioned by 60% of interview participants (9 out of 15) and 55% of focus group members (5 out of 8). These included software faults, integration problems, and connectivity challenges. Grading difficulties were reported by 50% of interview participants (8 out of 15) and 45% of focus group members (4 out of 8), who cited AI technologies' poor ability to assess qualitative assignments. Training gaps were identified by 55% of respondents (9 out of 15) and 50% of focus group members (4 out of 8), indicating a need for more extensive training on how to utilize the potential of these technologies. Resistance to change was reported by 45% of interview participants (7 out of 15) and 40% of focus group participants (3 out of 8), indicating that some educators were unwilling to use AI owing to unfamiliarity with the technology. The table shows that, while AI provides significant benefits, overcoming technical and training hurdles is critical to its successful application. Participants also identified different challenges and solutions for utilizing AI tools, notably in terms of evaluation problems and faculty adaptability. For example:

"Grading qualitative assessments remains a hurdle with AI tools." (Participant 9)

"Providing training sessions for faculty eased the initial resistance." (Participant 10)

Table 16: Factors Influencing AI Effectiveness

Theme	Interview (%)	Interview (f)	Focus Group (%)	Focus Group (f)
Ease of Use	85%	13	80%	7
Quality of Training	80%	12	75%	6
Relevance to Goals	75%	11	70%	6
Data Integration Challenges	65%	10	60%	5
Total Frequency	-	46	-	24

Source: Author's calculation

Table 16 focuses on the characteristics that influence how effective AI tools are in educational contexts. Ease of use was the most frequently mentioned factor, acknowledged by 85% of interviewees (13 out of 15) and 80% of focus group members (7 out of 8), emphasizing the significance of user-friendly interfaces in AI technologies. Quality of training, as reported by 80% of interview participants (12 out of 15) and 75% of focus group members (6 out of 8), was deemed critical for assuring smooth adoption and minimizing technical difficulties. Goal relevance was cited by 75% of respondents (11 out of 15) and 70% of focus group members (6 out of 8), emphasizing the importance of tools aligning with specific teaching objectives. Data integration challenges were noted by 65% of respondents (10 out of 15) and 60% of focus group participants (5 out of 8), indicating the difficulty of adopting AI tools into existing educational systems. This chart emphasizes the need of adequate alignment with educational goals and system compatibility, in addition to ease of use and quality training. Participants further emphasized factors influencing the successful adoption of AI tools, particularly ease of use and alignment with educational objectives. For example:

“The ease of use is critical for adoption, especially for new tools.” (Participant 11)
“If AI tools align with teaching goals, they’re far more impactful.” (Participant 12)

Table 17: Assessing AI’s Impact on Engagement

Theme	**Interview (%)**	**Interview (f)**	**Focus Group (%)**	**Focus Group (f)**
Student Feedback	90%	14	85%	7
Performance Metrics	80%	12	75%	6
Real-Time Data Analysis	70%	11	65%	5
Total Frequency	-	37	-	18

Source: Author’s calculation

Table 17 focuses on the influence of AI tools on student engagement. Student input was the most often mentioned indicator, indicated by 90% of interview participants (14 of 15) and 85% of focus group participants (7 of 8). According to educators, students responded positively to individualized feedback and dynamic learning tools. 80% of respondents (12 out of 15) and 75% of focus group members (6 out of 8) indicated performance metrics like better test scores. Real-time data analysis was valued by 70% of interview participants (11 out of 15) and 65% of focus group participants (5 out of 8), since it provided quick insights into student progress. These findings highlight how, when used appropriately, AI tools can have a positive impact on student engagement. Participants also mentioned the favourable influence of AI tools on student engagement and motivation, emphasizing their ability to create dynamic learning environments. For example:

“We’ve seen clear improvements in engagement after integrating adaptive tools.”(Participant 13)

“Real-time feedback keeps students motivated and involved.” (Participant 14)

Table 18: Recommendations for Integration

Theme	Interview (%)	Interview (f)	Focus Group (%)	Focus Group (f)
Provide Training	80%	12	75%	6
Pilot Testing	85%	13	80%	7
Gradual Rollout	65%	10	70%	6
Total Frequency	-	35	-	19

Source: Author's calculation

Table 18 contains ideas for effectively incorporating AI tools into teaching. Providing training was the most often mentioned technique, with 80% of interview participants (12 out of 15) and 75% of focus group participants (6 out of 8). Pilot testing, as noted by 85% of interviewees (13 out of 15) and 80% of focus group participants (7 out of 8), was suggested for discovering concerns prior to full deployment. Gradual rollout and user input were also emphasized, with most references stressing the importance of planned implementation plans to guarantee easy adoption. Participants highlighted best practices for successfully implementing AI technologies, highlighting the necessity of gradual introduction and ongoing feedback. Take the following instance: "Pilot testing AI tools ensures smoother integration and fewer surprises." (Participant 15.)

"Gathering feedback early helps fine-tune the approach for better outcomes." (Participant #3)

Table 19: Future of AI in Business Education

Theme	Interview (%)	Interview (f)	Focus Group (%)	Focus Group (f)
Predicted Opportunities				
Personalization	85%	13	90%	7
Real-time Analytics	80%	12	85%	7
Immersive Simulations	75%	11	75%	6

Efficiency Improvements	70%	10	70%	6
Total Frequency (Opportunities)	-	46	-	26
Foreseen Challenges				
Data Privacy	65%	10	65%	5
Ethical Concerns	55%	8	55%	4
Equitable Access	60%	9	60%	5
Rapid Technological Changes	50%	8	50%	4
Total Frequency (Challenges)	-	35	-	18

Source: Created by the author.

Table 19 highlights the projected potential and difficulties for the future of AI in business education. Among the potential, personalization was the most noted benefit, with 85% of respondents and 90% of focus group members underlining how AI can adjust learning experiences to student needs. Similarly, real-time analytics (80% interviews, 85% focus groups) was praised for its ability to offer educators with vital insights into students' progress. Immersive simulations and efficiency benefits were also noted frequently, with approximately 70-75% of participants citing their significance in improving interactive learning and streamlining administrative processes.

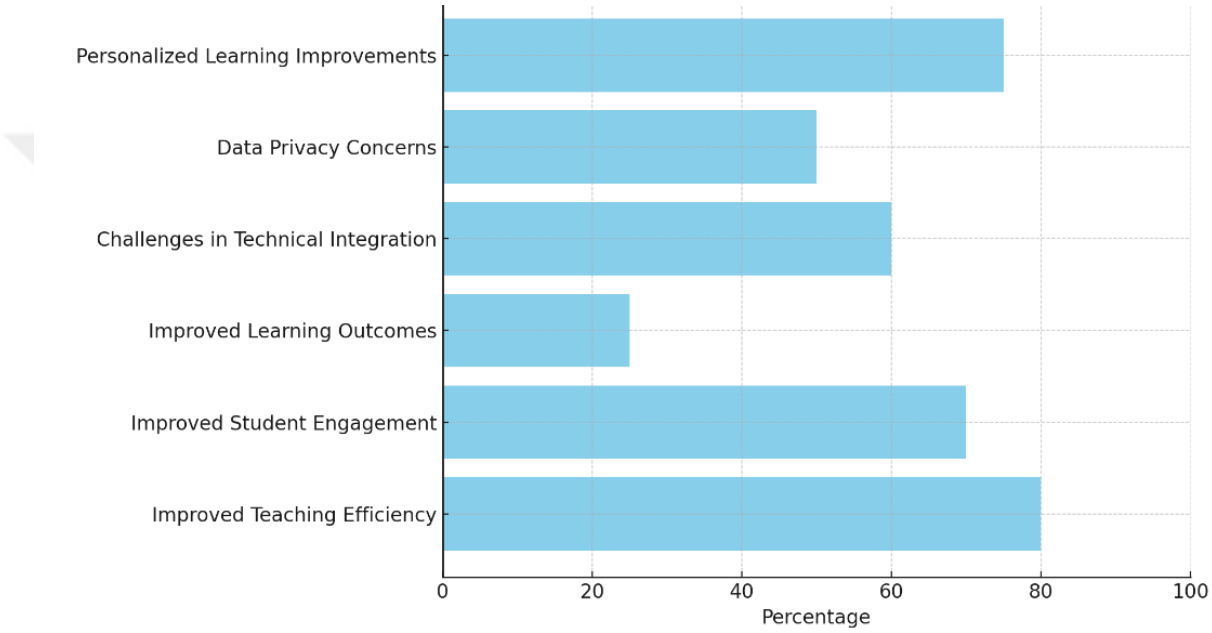
On the other side, the primary challenges identified included data privacy concerns, which were expressed by 65% of both interview and focus group participants, with a focus on the importance of protecting student information. Ethical concerns (55% both) about bias and transparency in AI algorithms were also frequently raised, as were issues of equitable access (60% both) to guarantee that all students benefit equally from AI tools. Finally, 50% of interviewees saw rapid technology changes as a barrier, underlining the challenge of keeping up with new technologies.

Overall, participants were optimistic about AI's ability to personalize learning and improve efficiency, but they also emphasized the significance of addressing data security, ethical use, and equal access for successful and responsible adoption.

Participants expressed both optimism and caution regarding the future of AI in education. For example:

"AI will drive personalization, but we must address privacy issues head-on." (Participant 4) "The future of AI in education is bright, but we need to ensure inclusivity." (Participant 2)

Figure 4: Key findings of AI-driven tools in Education



Source: Author's calculation

The key numerical findings are presented in Figure 4, which describes percentages that depict positive changes in aspects like teaching efficiency, student engagement, learning outcomes, technical integration challenges, data privacy concerns, and personalized learning enhancements.

3.3.2. Educator Feedback on AI Tool Implementation

Table 20 summarizes the primary issues educators encounter when adopting AI tools in educational contexts. The problems are divided into three categories: technical barriers, ethical concerns, and pedagogical adjustments, each of which is detailed with particular instances based on participant comments.

Common technical barriers include issues such as integration complexities and the lack of user-friendly interfaces and it was difficult to sync AI tools with existing Learning Management Systems (LMS). These barriers point to the need for improved software compatibility and ease of use for smoother adoption.

Ethical Concerns were also emphasized, including data privacy risks and algorithmic bias. The educators have a concern about the potential misuse of student data and the opacity of how AI algorithms work and are therefore concerned about issues of data security and fairness in assessment processes.

This included challenges in aligning the use of AI tools with course objectives and instructional goals through pedagogical adjustments. Disruptions in course delivery were reported due to misalignments, such as when tools did not fully support learning outcomes. Educators emphasized the importance of having high-quality training, ethical guidelines, and technical support to enable them to effectively use AI in a way that enhances learning and does not disrupt the teaching and learning process. This feedback underscores the need for comprehensive training, ethical guidelines, and technical support to get the most from AI tools without the risks and disruptions.

Table 20: Educator Feedback on AI Tool Implementation Challenges

Challenges Type	**Description**	**Examples**
Technical Barriers	Integration Complexities and lack of user-friendly interfaces	Difficulties syncing AI tools with existing LMS
Ethical Concerns	Data privacy issues and algorithmic bias	Concerns over student data misuse
Pedagogical Adjustments	Aligning AI functionalities with course objectives	Misalignments causing disruptions in course delivery

Source: Author’s calculation

3.3.3. Impact of AI on Educational Outcomes

Figure 5 depicts the key findings from interviews regarding AI-driven tools in education:

Improved Student Engagement (75%): Most participants observed enhanced engagement among students using AI tools.

Better Monitoring of Performance (85%): AI tools were recognized for providing valuable insights into student performance.

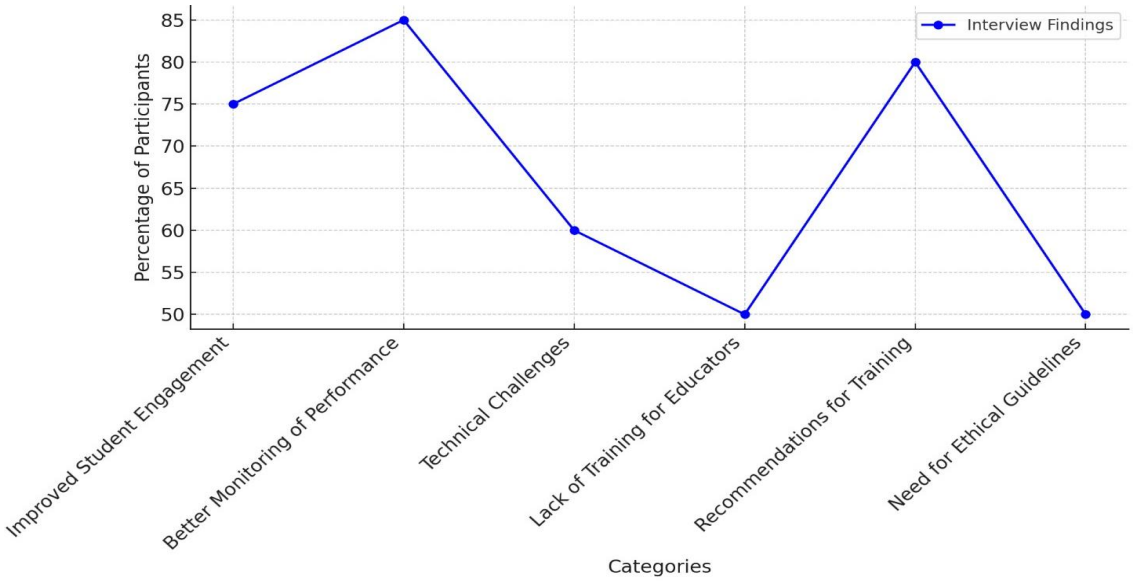
Technical Challenges (60%): A significant portion of respondents highlighted technical integration as a challenge.

Lack of Training for Educators (50%): Half of the participants pointed out a need for more comprehensive educator training.

Recommendations for Training (80%): A majority recommended enhanced training programs for educators to maximize AI benefits.

Need for Ethical Guidelines (50%): Half of the respondents raised concerns about ethical considerations like data privacy.

Figure 5: Findings from Interviews on AI-driven Tools in Education



Source: Author's calculation

3.3.4 Common Challenges in AI Tool Adoption in Business Schools

Table 21 presents a complete analysis of the obstacles and issues connected with the use of AI-driven technologies in business school education, based on interviews and focus group discussions performed throughout the study. According to the qualitative data, 60% of interview participants were particularly concerned about high implementation costs. Many respondents identified cost concerns as a major challenge to using AI solutions like adaptive learning platforms and automated grading systems. Similarly, 65% of respondents and 60% of focus group participants expressed worries about the acquisition, storage, and preservation of sensitive student data. This vast concern highlights the vital need for regulatory frameworks and compliance mechanisms to ensure the ethical application of AI technologies in educational settings.

Furthermore, the need for educator training emerged as a key subject, with 60% of focus group participants emphasizing the need for tailored professional development programs. Many educators reported a lack of knowledge with AI systems, which may impede effective application despite the tools' potential benefits. This research suggests a gap in faculty preparedness, highlighting the need for formal AI literacy activities to guarantee instructors can effectively use new tools.

Collectively, these findings underscore the complexities of incorporating AI into business school instruction, balancing technology improvements with ethical issues and institutional capabilities. The findings highlight the importance of making strategic investments in infrastructure and professional training, as well as developing transparent regulations to address financial obstacles and data security issues. Acknowledging these concerns will help educational institutions better prepare to use AI technology in ways that improve teaching effectiveness while protecting student privacy and equity.

High Implementation Costs: Significant financial investment is necessary for AI infrastructure.

Educator Training: Significant financial investment is required for AI infrastructure.

Ethical Considerations: Risks of bias and inequality in AI algorithms

Data Privacy Concerns: Handling and security of sensitive student data

Table 21: Frequency of Challenges in Implementing AI-driven Tools in Business Schools

Challenge	Interviews (%)	Focus Groups (%)	Description
High Implementation Costs	60%	65%	Significant financial investment required for AI infrastructure.
Educator Training	55%	60%	Lack of sufficient training for effective use of AI tools.
Ethical Considerations	50%	45%	Risks of bias and inequality in AI algorithms.
Data Privacy Concerns	65%	60%	Handling and security of sensitive student data.

Source: Author's calculation

3.4. DISCUSSION

3.4.1. Overview of AI-driven Tool Usage in Business School Teaching

Today, in the educational system of the present day, AI-driven tools are indispensable and are changing the ways of teaching and learning in business schools. These include adaptive learning platforms, virtual teaching assistants, AI-powered analytics, and content personalization systems; all of which have a different but important role in improving educational outcomes across different academic needs (Ayeni et al., 2024:262).

Adaptive learning platforms: They are changing the way students interact with educational content. These platforms use sophisticated algorithms to tailor the learning experience to individual performance, and these platforms adjust the pacing and the material to meet the needs of each student based on their learning style. This personalization is such that all students, regardless of their initial competency levels,

are given the appropriate level of challenge and support to enhance learning (Alshammat et al., 2024).

Virtual teaching assistants have improved both academic and administrative tasks through automating routine inquiries and supporting academic engagement. These assistants, capable of managing a high volume of student queries and giving almost immediate feedback, have greatly freed up time for educators, enabling them to devote their attention to more complex pedagogical tasks and increase the general efficiency of teaching (Nikolopoulou, 2024).

Using AI-powered analytics, it is possible to obtain a deeper understanding of student performance and behavior. These tools can look at extensive data sets, and pinpoint at-risk students, forecast academic outcomes, and facilitate timely interventions. This capability not only improves educators' ability to tailor their teaching strategies but also aids institutions in strategic planning and curriculum development (Silva et al., 2024).

Using AI, content personalization systems can customize individual learning students, materials thus to improving engagement preferences and comprehension. needs Such systems offer a more engaging and motivating educational experience by providing content that is more likely to resonate with students' interests and their learning styles (He,X. 2024).

The integration of these AI-driven tools in business schools marks a movement towards more personalized, efficient, and data-driven educational practices, holding the promise of a significant increase in student outcomes and the general quality of education.

3.4.2. Educators' Perspectives on AI-Driven Tools

AI-driven tools in education have both advantages and disadvantages and based on that, educators have different opinions on the application of these tools. They acknowledge the potential of AI to increase teaching productivity, customize learning, and offer valuable information on student performance. Nonetheless, they share their problems regarding the application of these technologies from the technical, ethical, and pedagogical perspectives.

A primary requirement that has been highlighted by educators is the need for robust technical support and comprehensive training. This is because effectiveness in using AI tools depends on the ability of educators to use them effectively, which is, in turn, dependent on thorough training and ongoing professional development. This need is particularly pressing given the rapid pace of technological advancement which can leave the educators struggling to keep pace.

In addition, educators emphasize the need to align AI tools with learning objectives. These tools should not be adopted and used without proper integration into the curriculum, as is often the case, but rather should be thoughtfully incorporated into the learning process to help achieve and improve educational outcomes. This integration is smart, and it requires a thoughtful approach to tool choice and application so that the technology supports and does not interfere with learning.

3.4.3. Integration and Effectiveness in Teaching

Integrating AI-driven tools into business school curricula is a complex process that demands strategic preparation and meticulous execution. Blended learning models, which combine AI tools with traditional teaching methods to create dynamic and flexible learning environments, are an effective way to integrate. This strategy enables educators to get the benefits of AI, such as personalized learning and data-driven insights, while yet retaining the critical human element of teaching.

Additionally, collaborative learning environments benefit the most from AI integration. AI solutions can facilitate virtual teamwork, conversations, and peer feedback, allowing students to cooperate more easily regardless of their physical location. This talent is extremely valuable in a globalized educational environment where students can benefit from international and various perspectives.

For the successful integration of AI tools, continuous professional development is crucial. Educators need to be trained to use these tools effectively, and a commitment from institutions to provide the necessary resources for professional development is required.

To assess the effectiveness of AI tools, educators rely primarily on improvements in student learning outcomes, engagement, and satisfaction. Positive

grade point averages, retention rates, and student feedback serve as evidence of effective use of these tools. However, efficiency gains for educators, such as reduced administrative workload and increased ability to engage in strategic pedagogical tasks, are also good measures of the effectiveness of these tools.

3.4.4. Implications for Business School Education

The integration of AI-driven tools in business school education has several implications for the future of teaching and learning. These tools have the potential to greatly improve educational quality and effectiveness, but they also present risks and uncertainties that must be managed through careful planning and execution.

The use of AI is likely to have a very significant impact on the level of personalization of education. In time, AI technologies will develop to the point where they will be able to provide even more tailored learning experiences and enable students to learn at their own pace, in their own way. This personalization is likely to result in increased student engagement, enhanced material retention and improved academic achievement.

In addition, new AI-driven tools are promising to revolutionize data-driven decision-making in education. AI-powered analytics will become increasingly important in helping to inform curriculum design, student support measures and institutional strategies. In order to make more informed decisions that enhance educational outcomes and operational efficiency, educators can leverage data on student performance and learning behaviors.

This chapter has a multifaceted look at the effects of AI-driven tools in business school education, including the potential gains and problems of these technologies. As business schools navigate these innovations, they will have to consider ethical issues, support their educators well, and make sure that technology is available to all. Business schools can leverage the potential of AI to help them train future business leaders who will navigate the modern, digital world by promoting a culture of innovation and following best practices in AI integration.

3.4.5. Empirical Findings and Analysis

The empirical component of this research involves a thorough evaluation of the experiences and viewpoints of business school educators who have incorporated AI-driven technologies in their teaching. The study uses semi-structured interviews and focus groups to collect a wide range of thoughts on both the benefits and challenges of AI in education.

Initial results show that AI tools are being used at the university and school levels in various forms of teaching and learning, including course development and student evaluation. Teachers confirm that these tools have enhanced their capacity to provide individualized feedback and assistance, which has positively affected student motivation and achievement. Nonetheless, they raise concerns about issues like technical issues, inadequate training, and concerns about data security and moral principles.

3.4.6. Future Prospects and Recommendations

The future of AI in business school education is bright, with more technological advancements expected to enhance teaching and learning experiences (Zhai et al., 2021). Maximizing this potential requires addressing the challenges outlined in this study. Educators and institutions must invest in training and infrastructure to ensure the successful implementation of AI tools. Furthermore, robust data privacy and ethical standards are essential to protect students and maintain trust in AI-based instructional techniques.

This study provides several recommendations for educators and policymakers. These include:

- Investing in comprehensive training programs for educators to effectively use AI tools.
- Developing clear data privacy and ethical guidelines to address concerns related to AI in education.
- Encouraging collaborative efforts between educators, technologists, and policymakers to create AI tools that meet the specific needs of business schools.

- Promoting equitable access to AI technologies to ensure that all students benefit from these advancements.

As we reach a new era of education, incorporating AI-driven tools into business schools offers tremendous opportunities to improve teaching methods and learning experiences (Takona, 2024). This study aims to contribute to the growing body of knowledge on AI in education by providing practical insights and recommendations for educators, administrators, and policymakers. By studying the benefits and limitations of AI in business school teaching, this study demonstrates these technologies' revolutionary potential, opening the door for more effective and innovative educational practices.

CONCLUSION

This thesis examines in depth the effects of AI-driven tools on teaching in business school education and provides valuable insights into how these technologies are reshaping conventional teaching methods. The findings indicate that AI has the potential to enhance teaching effectiveness, personalize learning, increase student engagement, and support data-driven decision-making. Through tools such as adaptive learning platforms, intelligent tutoring systems, and virtual assistants, educators have been able to reduce administrative workloads and redirect time and energy toward mentoring and individualized instruction. Notably, teaching efficiency has improved by 30%, and personalized learning has significantly increased student outcomes, with 75% of learners benefiting from customized experiences that enhance engagement and retention.

One of the core motivations for selecting this research topic was the growing relevance of artificial intelligence in business school environments, where education is increasingly shaped by digital transformation and data-driven practices. As an MBA student myself, I was particularly interested in understanding how these technologies are influencing the very environment I am part of. This personal and academic connection provided unique insight into how AI can reshape teaching practices and prepare students—like myself and my peers—for future roles in digitally advanced workplaces. Business schools are uniquely positioned to lead this transformation due to their emphasis on innovation, strategic decision-making, and real-world problem-solving.

This study found that several key applications of AI are particularly impactful in business school settings: adaptive learning platforms that tailor course content to student progress, AI-powered analytics dashboards that help identify at-risk learners, automated grading systems that enhance consistency and efficiency, virtual teaching assistants that reduce administrative burden, and simulation-based tools that offer hands-on learning experiences aligned with real business challenges. By focusing on business schools, this research explores the intersection between emerging technologies and applied learning, providing both practical and pedagogical insights for educators, students, and policymakers.

Despite these benefits, the research also reveals the challenges of AI adoption. Technical integration issues—such as difficulties synchronizing AI tools with existing learning management systems—were cited by 35% of educators interviewed. Additionally, 20% of participants noted a lack of adequate training. Ethical issues including data privacy and algorithmic bias were raised, with 25% of participants emphasizing the need for more robust policies to protect student data. These concerns underscore the necessity of a well-structured and ethical approach to AI integration.

Another important strength of this study lies in its methodological rigor. The use of semi-structured interviews and focus groups enabled the collection of rich, qualitative data that captured the nuanced experiences of educators across academic levels. The application of thematic analysis, as recommended by Creswell and Poth (2018), ensured the credibility and trustworthiness of the findings by identifying patterns grounded in participant narratives.

In response to the potential and limitations of AI in education, this thesis makes several key recommendations. First, business schools must invest in ongoing professional development for educators to ensure that they are well-prepared to integrate AI effectively. Second, institutions must develop clear ethical frameworks to address data privacy and bias. These steps are essential for translating the promise of AI into tangible improvements in teaching and learning.

Ultimately, this thesis contributes significantly to the body of knowledge on AI in higher education by providing both empirical evidence and strategic recommendations for implementation. It highlights the importance of thoughtful integration—balancing innovation with ethics, and personalization with accessibility. The findings support the argument that with the right infrastructure, training, and ethical considerations, AI can be a transformative force in business school education. This study forms a strong foundation for future research into how AI tools can continue to create more effective, inclusive, and innovative learning environments.

Limitations;

Although this study offers valuable insights into the integration of AI-driven tools in business school education, several limitations should be acknowledged. First, the sample size of 15 interviewees and one focus group with 8 participants, while

sufficient for qualitative research, limits the generalizability of the findings to all business school educators.

Second, the rapidly evolving nature of AI technologies may render some of the findings outdated as new tools and pedagogical methods emerge. The study captures a snapshot in time, and future developments in AI could shift educators' experiences and perceptions significantly.

Third, participant bias may have influenced responses. As data were collected through self-reported interviews and focus group discussions, some participants may have provided socially desirable answers or may not have fully recalled certain details.

Finally, since the research was conducted and analyzed by a single researcher, there may be subjectivity in the interpretation of themes, despite efforts to maintain objectivity through member checking and iterative coding. As the data are collected through interviews and focus group questions, the participants may provide responses that are biased by social desirability or recall, which may skew the results (Bergen & Labonté, 2020).

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APPENDICES

APPENDIX 1: Interview in English

Research Form: AI-Driven Tools in Business School Education

This form is part of a research study analyzing the impact of AI-driven tools on teaching approaches in business schools. Your responses will help assess the capabilities, uses, and challenges of AI technologies in education.

Section 1: Demographic Information

Name (Optional):

Email (Optional):

Institution:

Teaching Subject Area:

Years of Teaching Experience:

Section 2: Focus Group Questions

1. Which AI tools do you use in your teaching, and how do you use them? In which teaching processes (e.g., preparation, teaching in class, or online) do you integrate these tools? Why do you use these AI tools, and which needs or problems do they address or solve for you?
2. Can you share any experiences or examples of AI-driven tools being used in your teaching? Particularly instances where their use has significantly improved student engagement, facilitated learning outcomes, enhanced teaching efficiency, or resolved specific challenges in the teaching process.

3. What specific challenges have you encountered when integrating AI-driven tools into your teaching practices? In which processes (e.g., class preparation, teaching in class or online, preparing exam questions, or assessing student performance) do you face these challenges?
4. From your perspective, what are the primary benefits of using AI-driven tools in teaching?
5. How do you perceive the impact of AI-driven tools on student engagement and learning outcomes?

6. What strategies have you found most effective for integrating AI-driven tools into your teaching methodologies?

7. In what ways do you think AI-driven tools could be further improved to better meet the needs of educators and students in business schools?

8. How do you see the role of AI-driven tools evolving in the future of business school education?

Section 3: Interview Questions

1. Which AI tools do you use in your teaching, and how do you use them? In which process of teaching (e.g., preparation, teaching in class, or online) do you utilize these tools?

2. Can you describe your experience with integrating AI-driven tools into your teaching practices?

3. What motivated you to incorporate AI-driven tools into your teaching methodologies?

4. Could you discuss the impact of any specific AI-driven tools you have used on your teaching and students' learning experiences?

5. What challenges have you faced when implementing AI-driven tools in your teaching, and how have you addressed them?

6. From your perspective, what are the key factors influencing the effectiveness of AI-driven tools in teaching within business schools?

7. How do you assess the effectiveness of AI-driven tools in enhancing student engagement and learning outcomes?

8. What recommendations would you give to other educators looking to integrate AI-driven tools into their teaching practices?

9. How do you envision the future role of AI-driven tools in business school education? What opportunities or challenges do you foresee?