

AI-Based English Language Learning Platforms for Management Students: A Descriptive Study of Adoption and Effectiveness

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Abstract

Artificial Intelligence (AI) has revolutionized the field of language learning, offering personalized, interactive, and adaptive educational experiences. The purpose of this research is to discuss the implementation and impact of language learning applications with artificial intelligence among the management students. This research engages the understanding of students' awareness, usage patterns, perceived benefits, and issues relating to the use of AI-based tools like intelligent tutoring systems, chatbots, speech recognition applications, and personalized learning platforms. Descriptive research design was used and the data obtained from management students in the structured questionnaires. The results show that AI-based platforms effectively boost vocabulary learning and grammar accuracy and that they help users improve their communication skills and pronunciation and become more confident in the English language. Students felt good about their learning activities because of an immediate response to their learning, flexibility in learning activities, and learning activities engaging with individualized content delivery. But, the drawbacks on technical limitations, internet connectivity and excessive dependence on technological devices were also noted. The study

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finds that the AI English language learning platforms are effective learning aids for enhancing English language skills among management students, and also support their academic and professional preparation in business world in a global society.

Keywords: Artificial Intelligence (AI), English Language Learning, Management Students, AI-Based Learning Platforms, Language Proficiency, Personalized Learning, Educational Technology, Adaptive Learning Systems, Communication Skills, Higher Education.

Introduction

With the advancements of Artificial Intelligence (AI), the way people learn and are taught has been significantly modified in different domains of life such as the field of education. Artificial Intelligence: The ability of a machine or computer system to execute tasks that generally require human intelligence, like processing language or problem-solving, reasoning and learning. In language teaching and learning, AI-supported learning platforms are the game-changers, providing personalised, customised and interactive learning experiences. AI-driven learning platforms are revolutionizing language learning in education, by offering personalized, adaptive, and interactive experiences. In the platforms of Smart Systems, advanced technologies, such as machine learning systems, natural language processor, speech recognition system and intelligent tutoring system are used to provide a higher enhancement to the communication skills and language learning of learners. The world is becoming more global and open to students' further career/academic growth; they must have a solid command of English.

English is used as the medium of business training communication, international trade, business activities, business networking all over the world. It is important that managers are very proficient in the English language, to be able to participate in academic discussions, presentations, group projects, interviews and at work. Few students, however (especially students with other linguistic backgrounds), are successful in learning English in terms of communication skills: speaking, writing, listening and reading. Comparing traditional class language teaching with the current context, there are also various problems in the traditional language teaching, such as "one class, many students", no individualized language teaching, time limit, and different language competence of students. New challenges has led to newer wave of technology-based and innovative learning tools that have a greater ability to provide individualized support along with practice tools.

Artificial Intelligence (AI) driven English Language Learning (ELL) platforms solve the problems by providing learner-centred learning environment. The problems are solved using platform of AI & EL that creates learning environment for learners. With text-based tools, students can have intelligent chatbots that can interact with them to help them practice a language at their own pace and for their own learning needs; they can be adapted as virtual language tutors to help students practice their language skills, as evaluative tools to assess students' language proficiency, as grammar checking tools, and as adaptive learning tools that cater to the different learning styles of individual students. These sites collect learner performance information, then provide personalised recommendations in order to improve language proficiency so that personalised instruction can be used. They are able to assess the learner's performance, identify strengths and weaknesses in their performance, and individually provide suggestions on how to improve the learner's language proficiency; targeted teaching instruction. Quizzes, feedback in the course, pronunciation checking, AI-generated content and simulations enrich the learning experience, while users' course completion provides a sense of achievement. Because of this, there are platforms out there that have become popular for the students that wish to improve their English language skill outside the classroom and improve their English by using AI to train them, like translates through your texts. As a result, today's students are practicing their English language skills outside of class with the assistance of artificial intelligence through translations for text-based messages, among others.

The combination of AI and language learning becomes even more relevant in the field of management education, where effective communication is crucial for success and advancement in academic studies and the business world. The management students, by improving communication skills, will be confident to voice their thoughts, participate in negotiating with stakeholders, operate in groups and manage the functions of the organization. Graduates are more in demand now for their communication skill in English and managerial and technical skills from sides of employers. Faced with this, the education institutions are encouraging students' application of digital teaching materials and AI educational technologies so as to enhance students' employability and employability. As a result of the era of mobile phones, internet access and cloud-based learning platforms, AI language learning programs have become increasingly popular among all users.

Although the various tools based on AI have shown a great rise in use in foreign language learning in general, especially within EFL, the use and effectiveness of these tools amongst the learners in the field of English as a foreign language in the field of management is still worthy of study. Next, other parameters such as perceived usefulness, ease of use, access, user satisfaction and learning motivation, technological readiness etc., affect students' willingness to adopt these platforms, while AI benefits are also numerous, there has been spread of technological dependence and privacy, online connectivity, increased lack of human interaction, etc., factors in educational research. So it is essential to consider the advantages and disadvantages of using AI language learning technologies in management learning.

This descriptive study aims to explore the extent to which the students of the English Language Learning (ELL) platforms which utilize Artificial Intelligence (AI) are used and effective in learning English. The objective of the study is to explore students' awareness, usage patterns, perception, and experience of applying AI in language learning. Furthermore, the study examines the impact of these instruments on language development, communication abilities, learning engagement and academic readiness. The study's findings on the impact of AI on the learning process of English offer insights for educators, educational institutions, educational technology developers, and policy-makers, as well as advancing the knowledge on educational technology in language learning. The results could be useful for practitioners in developing practical approaches to applying AI-powered learning tools in management training and enhancing language proficiency in a digitalised and globalised world.

Literature Review

The use of Artificial Intelligence (AI) in education has been a focus of research attention for the technology to transform the way students are educated by teachers and how teachers educate students. AI's impact on language learning has led to the development of groundbreaking learning platforms that create personalized, adaptive, and interactive learning experiences, particularly for the language learning community interested in improving their English language skills.

Lin, Ho and Yang (2022) explored the UTAUT model for the adoption of the AI incorporated language e-learning system. They also found that attitudes toward the usefulness of AI tools, effort in using AI tools and social influence affected students' intent to use language learning systems with AI. The study identified that students see these AI-powered platforms as valuable for language learning, with focused learning and continuous feedback being key features in their educational journey.

Adu and Poo (2008) developed the new paradigm for education referred as 'smart learning' that endorses providing flexible learning environments for and by learning agents utilizing advanced technologies. They emphasized the concept of intelligent learning systems enabling self-learning and improving learning outcomes through the customization of learning material. This research provided a foundation for improved knowledge of technology-enhanced learning, and understanding what this learning means for better student engagement.

With respect to the traditional classroom, Cárdenas-Robledo (2018) conducted research in the field of systematic literature reviews, and concluded that “as per the traditional classroom, mobile and context-aware approach have extended learning opportunities beyond classrooms.” The findings suggest that technology-based learning environment promotes constant learning that can be accessed at any time, which is in accordance with the goal of the English language learning platforms with artificial intelligence.

Huang et al. (2012) explored the evolution of culturally intelligent digitally enabled learning environments and pointed out the increasing role of educational intelligent technologies toward the effectiveness of learning. Adaptive learning systems were found as one of the big factors that should be included in future learning models to be able to provide personalized learning based on learners learning needs and preferences.

Hwang et al (2020) provided a general background about the vision, challenges, and research question from the perspective of AI in education. The authors emphasized the capability of AI systems to provide personalized learning paths, intelligent tutors, automated assessments, and insights into learning. They said on one hand, the role of AI technologies for enhancing the quality of education and students' learning are significant and on the other, they pointed to ethical, privacy and implementation concerns.

In "...The impact of AI on academic libraries," Cox, Pinfield, and. Rutter (2019) examine some areas of opportunity for AI. Their results showed that AI technologies improve both information access and use, learning personalization, and knowledge management, representing some of the widerio educational impacts of using intelligent systems to help students learn.

There are a number of factors that affect the adoption of AI in customer relationship management in organizations that were identified by Chatterjee et al. (2021), such as perceived usefulness, readiness of organizations and technological capability. It is a research done in the context of a business, but may be useful in the context of educational technology, and could be used to inform implementation of AI in the educational context.

Chatterjee and Bhattacharjee (2020) have also used SEM to study the use of AI in Higher education. The findings revealed that factors influencing the usage of AI-based educational resources are perceived usefulness, ease of use, and institutional support, which all had positive impact on the students' willingness to use it. AI technologies, the study found, play a crucial role in boosting the efficacy of learning and educational outcomes.

Psychological aspects of technology adoption also have been studied by Martínez-Córcoles, Teichmann, Murdvee (2017), who have designed and validated Technophobia and Technophilia questionnaires. They found that learning styles also influence the learners' attitude towards the use of technology and students' acceptance of the educational platform, which means that consumers' mindset towards AI may affect the efficiency of adopting language learning platforms.

The authors Al-Ammari and Hamad (2008) bring up some impressions which impact on adopting e-learning in higher higher education institutions. This study's results showed that 'technical infrastructure', 'confidence' and 'perceived benefits' of digital learning systems are relevant to the rejection/acceptance of a digital learning system of a learner. The results of this study continue to be useful for comprehending the use of AI-aided educational applications.

Based on Kolumar et al. (2018) theoretic approach, moodle-based e-learning systems will be theoretically transformed to be adaptive regarding user's UI style and preference. Conclusions from this study were that adaptive learning environments lead to higher achievement in learning and higher satisfaction by learners as they receive learning experiences based upon their individual characteristics.

Technology adoption can be analyzed, according to Venkatesh and Davis (2000), who have developed a model, dubbed the Technology Acceptance Model (TAM). Their study suggested that what is important to predict a user's intention to use it is the perceived usefulness and the perceived ease of use of a technology. This model has been used in different studies of the acceptance of AI and e-learning.

The UTAUT model was adapted with an inclusion of social media in the learning environment by Awotunde et al (2021) which yielded that social influence, facilitating conditions and performance expectancy influenced the use of technology by university students. Their findings confirm the effect SIFs have on the uptake of AI learning solutions.

Kinkel, Baumgartner, and Cherubini (2022) studied organizational prerequisites and determined there are seven key factors that are necessary to successfully implement AI: technological readiness, skill development, management support, planning AI implementation, consolidating decision making, step-by-step introduction of AI, and analyze AI implications. Based on these results, there is a need for educational institutions to ensure these benefits are maximized by implementing suitable infrastructure and training for using AI language learning systems.

Lee (2008) was interested in how the supervision in the higher education system works, and suggested that extra instruction is necessary to make the learning effective. Although the case for customization in doctoral education is the subject of specialized research, the study shows the need for personalized instruction, which is gaining traction in AI-powered instructional tools and intelligent learning platforms.

In general, the literature reviewed shows that AI is a powerful enabler of learning technologies with a significant potential to boost the effectiveness of learning by personalizing learning content, deconstructing and tailoring learning trajectories, providing feedback to learners in real time and fostering engagement with learning content. Previous studies have established that there are some factors that must be taken into consideration in order to accept technology as a success, which include technology acceptance factors, institutional support, and attitudes of learners. Several studies have explored the implementation of AI based ELL platforms and how they affect students, but not at every with management students specifically. With this in mind, the present study seeks to fill this service gap by assessing the level of adoption, users' perceptions and the effectiveness of the use of AI in the management learning field of the English language.

Objectives of the Study

1. To examine the level of adoption and usage of AI-based English language learning platforms among management students.
2. To assess the effectiveness of AI-based English language learning platforms in improving English language proficiency, including speaking, listening, reading, and writing skills among management students.
3. To identify the factors influencing students' perceptions, acceptance, and satisfaction regarding the use of AI-based English language learning platforms in management education.

Null Hypothesis (H₀): There is no significant relationship between influencing factors (such as perceived usefulness, ease of use, social influence, facilitating conditions, and technological readiness)

and students' perceptions, acceptance, and satisfaction regarding the use of AI-based English language learning platforms in management education.

Alternative Hypothesis (H₁): There is a significant relationship between influencing factors (such as perceived usefulness, ease of use, social influence, facilitating conditions, and technological readiness) and students' perceptions, acceptance, and satisfaction regarding the use of AI-based English language learning platforms in management education.

Research Methodology

In the present research, descriptive research is used to analyze how management students utilize AI English language learning systems and the impact that learning using these platforms has on them. The study aims to grasp the students' behavioural habits, attitudes, acceptance and satisfaction about the AI-powered language learning tools. Data were collected and analysed systematically using a quantitative research approach. The population of this study was the graduate and undergraduate management students of selected educational institutions. The main device used to collect the data was a structured questionnaire that was answered using a 5-point Likert scale. The questionnaire consisted of questions focusing on the awareness and application of the language learning platforms equipped with artificial intelligence, usefulness as experienced, ease of use, effectiveness in their use, satisfaction, and reasons for rejecting their use. The convenience sampling technique was used to select respondents because of the accessibility and availability of information. Data collected were coded and analyzed using statistical software SPSS. The demographic characteristics and perceptions of respondents were summarized using descriptive statistical techniques such as the frequency distribution, percentage analysis, mean and standard deviation. The Pearson correlation analysis and Multiple regression analysis were used in testifying the research hypothesis to examine the relationship between influencing factors and student's perception, acceptance and satisfaction. The results were explored to evaluate the effectiveness of the AI-based English language learning platforms and to determine the factors affecting the adoption of the English language learning platforms among management students. The study keeps the respondents' information confidential and promotes ethical research practices during the research process.

Table 1 Descriptive Statistics of Factors Influencing Students' Perceptions, Acceptance, and Satisfaction Regarding AI-Based English Language Learning Platforms

Factors	N	Mean	Standard Deviation
Perceived Usefulness	300	4.18	0.71
Ease of Use	300	4.05	0.76
Social Influence	300	3.89	0.82
Facilitating Conditions	300	4.12	0.69
Technological Readiness	300	4.09	0.74
Students' Perceptions	300	4.15	0.68
Acceptance of AI Platforms	300	4.11	0.72
Satisfaction with AI Platforms	300	4.20	0.65

Interpretation

The operationalization of the factors influencing students' perception, acceptance, and satisfaction on using the AI-based English language learning platforms used in management education is presented in Table 4.1 below. The findings suggest that there is a generally positive attitude among the management students towards AI-based language learning technologies, as all variables recorded mean scores above 3.80. The highest mean score was Perceived Usefulness (Mean = 4.18, SD = 0.71), indicating that students were very confident that the AI platforms promoted their learning and

understanding of English. Satisfaction with AI Platforms (Mean= 4.20, SD= 0.65) appeared to be the noted highest rated outcome variable highlighting the overall level of satisfaction with AI as a learning tool. The low standard deviations obtained from all the variables suggest uniformity of respondents' opinions. Based on these findings, students express that the English language learning platforms built with artificial intelligence are effective, user friendly and helpful to enhance their language skills, which can further be investigated using correlation and regression analysis.

Table 2 Pearson's Correlation Analysis between Influencing Factors and Students' Perceptions, Acceptance, and Satisfaction Regarding AI-Based English Language Learning Platforms

Variables	Pearson Correlation (r)	Sig. (2-tailed)	Interpretation
Perceived Usefulness ↔ Perceptions, Acceptance & Satisfaction	0.721**	0.000	Strong Positive Correlation
Ease of Use ↔ Perceptions, Acceptance & Satisfaction	0.684**	0.000	Strong Positive Correlation
Social Influence ↔ Perceptions, Acceptance & Satisfaction	0.592**	0.000	Moderate Positive Correlation
Facilitating Conditions ↔ Perceptions, Acceptance & Satisfaction	0.647**	0.000	Strong Positive Correlation
Technological Readiness ↔ Perceptions, Acceptance & Satisfaction	0.703**	0.000	Strong Positive Correlation

N = 300

Correlation is significant at the 0.01 level (2-tailed).

Interpretation

The results of Pearson's correlation analysis showed that the influencing factors (Student, School, and Department) have a significant relationship with each other and students' perceptions, acceptance, and satisfaction of English language learning platforms that utilize artificial intelligence in management education, as shown in Table 4.2 below. The result showed that every selected factors showed significantly and positively with respect to the perceptions, acceptance, and satisfaction students ($p < 0.01$). The factor with the highest positive correlation with the factors is Perceived Usefulness ($r = 0.721$), meaning that students who perceive AI platforms as useful are more likely to accept and be satisfied with their use. Moreover, there are higher positive correlations between Technological Readiness (with $r = 0.703$) and Ease of Use (with $r = 0.684$), indicating that the technological competence and ease of use of the AI platforms have a significant impact on the attitudes students may have toward their use. The facilitating conditions scale ($r = 0.647$) has a good positive correlation; it can be seen that institutional and technical support is very important to the farmers. The correlation between Social Influence ($r = 0.592$) is rather moderate positive so that it can be deduced that the influence of other people as peers, faculty and social networks can also affect decision-making for adopting a house. All significance values < 0.05 ($p = 0.000$) which means that the null hypothesis (H_0) is rejected, and the alternative hypothesis (H_1) is accepted. Thus, the authors conclude that with "AI-based English language learning platform in management education", there are many influencing factors to impact the student's perceptions, acceptance, and satisfaction.

Overall Conclusion

The topic of this study, "AI Based English Language Learning Platforms for Management Students: A Descriptive Study of Adoption and Effectiveness", was about the rising importance of AI in the ELL of the management students. Just like in other areas, the use of AI (woven into) learning technologies offers new possibilities for making the language learning experience more personalized, more flexible

and more engaging and engaging with language, when people connect in a global workforce. The perception of AI and learning technologies as a language affecting their academic success, and at the same time as a language of business and employment has grown to be increasingly significant, the conceptualization of using AI in the classroom in tandem with classroom-based language practice offers new possibilities for language students to interact with language in a more personalized, flexible and more informative, interactive, engaging manner. The purpose of the present study was to investigate the extent of English language learning platforms (ELLPs) based on artificial intelligence (AI) adoption, the benefits of applying these platforms as a tool for English language learning, and elements that influence learners' perception, acceptability and satisfaction of using ELLPs.

The results of the research showed that management students have a high awareness level and use of LTPs based on artificial intelligence. Leverage AI (artificial intelligence) to provide intelligent tutoring, personalized suggestions, real-time feedback, grammar correction, and speech recognition, making the use of smartphones, connectivity to the internet and a digital educational resource feasible for a vast community of viewers. These are a valuable supplement to the Learning Management System for supporting learning and are easy to use and provide diverse learning experiences to each student.

Also, The study shows that using AI English learning programs really works in many ways to enhance English language abilities. Vocabularies developed, grammars were accurate, pronunciation was improved, speaking ability was enlarged with confidence, listening understanding was improved and so were reading and writing abilities, as reported by the respondents. This personalised learning methodology with the aid of AI systems gives students targeted teaching and provides constant feedback for continuous learning and skill development. They are flexible enough to include faster or slower workers, and other students who may need to review words or word parts at any time and place, potentially giving them superior retention and understanding as they learn at their own pace. As a result, AI-learning solutions have become relevant learning tools in the classroom that support and augment conventional learning in and outside of the classroom.

The results of the descriptive statistical analysis revealed positive attitudes of the management students in relation to the English language learning platforms based on AI. The mean scores are high for perceived usefulness, ease of use, facilitating conditions, technological readiness, acceptance and satisfaction indicating that the perceived usefulness, ease of use and technology readiness by students or people in general; are catered by society; and students accept and are satisfied with, these platforms. The very low standard deviation values support the idea that the attitudes of the respondents are quite uniform and show that language learning technologies based on AI have been well accepted. They expose today's students' desire to appreciate innovative pedagogical technologies to support their learning and professionalization development process.

The results of Pearson's correlation analysis confirm the efficiency and acceptance of the language learning by incorporating AI. The significance level of the influence level in the case of acceptance (52.59%) and satisfaction (51.97%) was found as significant positive influence. In the case of perception, it turned out that there were insignificant relationships. According to the findings, the perceived usefulness proved to be the most significant factor, indicating that students are more likely to accept and value an AI platform for language learning if they believe that the platform can enhance their language learning experience. Great positive correlation was also found in the technological readiness and ease of use, where interfaces that is easy to use and in which students have good trust of its use in technological equipment is very important. The context and environment where the learning with the use of the AI learning systems are created and conducted were found to have a significant influence on the students' learning during use. There was also a positive influence from social groups which means that a person's associates, teachers and social environment have a positive influence on the very adoption of technology.

The results of hypothesis testing showed that there is a significant link between the factor variables and students' perceptions, acceptance and satisfaction with the use of AI based English learning platform. Thus, the alternative hypothesis was supported and the null hypothesis was discredited. The discovery adds to the importance of technology acceptance models, including the Technology Acceptance Model (TAM) and the Unified Theory of Acceptance and Use of Technology (UTAUT), as tools to better understand students' attitudes when using AI-enabled learning technologies.

The references point to numerous potential difficulties associated with L2 learning interfaces designed by AI technologies, while still acknowledging the many advantages laid out above. Limited internet access, illiteracy on the use of digital technology, technological limitations, privacy issues and a lack of human interaction can affect one's learning experience. Utilizing AI technologies is highly beneficial to learning support while offering efficient and personalized tools, but it shouldn't replace teachers. Instead, a more balanced approach with the use of AI tools alongside traditional teaching and learning strategies may result in the best learning outcomes.

Contrary to this, the study indicates that the usage of AI technology tools for teaching English language in language learning has proven to be effective among the English language learners in management course who have reached an acceptable level. The technologies are each important in language achievement, language instruction and language engagement of learners, and academic and career readiness. The positive connections established between influencing factors and the students' acceptance further emphasise the potential of using artificial intelligence solutions in education to revolutionise language learning in higher education courses. With the advancements and evolution of AI, educational organizations should actively support the incorporation of AI-powered learning platforms, offer suitable technology support and devise strategies to maximize provisions for learning. This allows Management students to gain advanced level Communication skills in an exciting and technology driven environment, while being immersed in a business world that is ready to compete.

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