Generation Z's Perceptions of the Implementation of AI Virtual Assistants in Organisations and Personal Life

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Abstract: *This paper examines the perceptions and attitudes of Generation Z towards the implementation of AI virtual assistants in both organizational and personal settings, considering the progress of digitalization and technology. Through a review of the literature, the study highlights how young people perceive the benefits and efficiency of these virtual assistants in their personal and professional lives, emphasizing the importance of these digital technologies. The paper also identifies factors that influence the acceptance or rejection of these technologies in organizations, providing a comprehensive perspective on Generation Z's interaction with these emerging technologies. The research hypotheses proposed are: (1) The implementation of AI virtual assistants significantly improves the efficiency and operational performance of organizations, and (2) The use of AI virtual assistants increases user satisfaction by enhancing experience and ensuring data security. The research methodology includes a survey distributed to Generation Z and a factor analysis of the collected data. The results support the validity of the hypotheses, highlighting the positive impact of AI virtual assistants on operational efficiency and user satisfaction. The conclusions emphasize the need for a strategic approach in implementing AI to maximize benefits and ensure long-term success.*

Key words: Artificial intelligence, virtual assistants, generation Z, digitalization.

JEL: M15, O33, D83, C38.

1. Introduction

Contemporary society is profoundly influenced by digitalisation, which is rapidly transforming the way we live and work. In a world dominated by automation and advanced technologies, virtual assistants, chatbots, and robots are becoming increasingly ubiquitous.

Industry 4.0 represents the fourth industrial revolution, characterised by the integration of digital technologies into businesses (Ardito, et al., 2019; Buer, et al., 2018). Since the concept was introduced in 2011, Industry 4.0 has attracted global attention, bringing essential changes to the operational modes of enterprises and to governmental policies (Ghobakhloo, 2018). The purpose of "Industry 4.0" is to incorporate all these elements into a global interoperable value chain shared by many companies across multiple countries (Veith, 2018).

Since the first industrial revolution, society has been challenged to meet the demand for goods while using limited resources and simultaneously attempting to minimise the impact on the environment and the community (Beier, et al., 2018; Muller, 2018). Sustainability has become essential, covering the social, economic, and environmental aspects of human existence (Choi & Ng, 2011; Ford & Despeisse, 2016).

According to Beier et al. (2017), sustainability means protecting economic and social resources in addition to environmental ones (Beier, et al., 2017). The United Nations promotes sustainability to address global issues such as inequality, climate change, and pollution, ensuring the well-being of future generations (Caradonna, J.L., 2014). Sustainability is based on three fundamental pillars: economic, social, and environmental (Ford & Despeisse, 2016; Kamble, et al., 2018; Khuntia, et al., 2018). Environmental sustainability aims to maintain ecological balance and ensure the responsible use of natural resources (Glavič & Lukman, 2007). Economic sustainability focuses on long-term growth that protects social and environmental resources (Choi & Ng, 2011). Social sustainability aims to build healthy and equitable communities, with access to fundamental services (Demspey, et al., 2011).

Industry 4.0 is transforming all consumer and industrial markets through smart production and the digitalisation of value chains (Schroeder, et al., 2019). Digital transformation, supported by academic research, brings profound changes to economic, social, and environmental sustainability, with the potential to generate significant repercussions (Jabbour, et al., 2018; Kamble, et al., 2018). The purpose of this paper is to analyse Generation Z's perceptions and attitudes towards the implementation of AI virtual assistants, both within organisations and in personal contexts, considering the progress of digitalisation and technology. By examining the literature, the study highlights how young people perceive the benefits and efficiency of these virtual assistants in their personal and professional lives, underlining the importance of these digital technologies. Throughout the paper, the factors that influence the acceptance or rejection of these technologies within organisations are also identified, providing a broad perspective on Generation Z's interaction with these emerging technologies.

In line with the purpose of the paper, we formulated the following hypotheses for the research conducted:

Hypothesis 1: The implementation of AI virtual assistants significantly improves the efficiency and operational performance of organisations.

Hypothesis 2: The use of AI virtual assistants increases user satisfaction by improving the experience and ensuring data security.

2. Literature review

Artificial Intelligence (AI) represents one of the most dynamic and influential modern technologies, redefining daily routines through its ability to interpret, learn, and utilise data to achieve various purposes and tasks (Haenlein & Kaplan, 2019). Globalisation makes the business world increasingly homogeneous over time (Matei & Veith, 2023). Whereas until recently, the results of an investment project could be achieved within the previously established deadline, this has become increasingly difficult, as today's business environment is characterised by rapid and unexpected changes, often difficult to understand (Minciu, et al., 2021).

Advances in computing power, the vast amount of data, and progress in machine learning make AI a major influence both on customer behaviour and on the way companies conduct their business (Huang & Rust, 2021). Technology has advanced considerably, and every individual has learned to use the internet and tools such as laptops, tablets, or smartphones (Veith, et al., 2021).

AI is revolutionising business, the economy, and society by changing the connections and experiences with stakeholders. The origins of the AI concept can be traced back to ancient mythology, but the term was formalised in 1956 at Dartmouth College (Nilsson, 2010). AI has been defined in four categories: human-like thinking systems, human-like acting systems, rational thinking systems, and rational acting systems (Rusell & Norvig, 2016). These categories include natural language processing, knowledge representation, automated reasoning, and machine learning (Huang & Rust, 2018).

While in the past most organisations would only update their strategy or processes when a crisis occurred, this is no longer effective (Minciu, et al., 2022). Europe's digital transformation is accelerated by new technological advances, such as artificial intelligence, robotics, cloud computing, and blockchain (Matei & Veith, 2023). The value AI brings to companies is significant, influencing both how business is conducted and how customers' purchasing processes are shaped. The Internet of Things (IoT) has the potential to create value by simplifying consumers' daily tasks through automated transactions and maintenance assistance (Hoyer, 2020).

Organisations can increase operational efficiency, customer satisfaction, and competitiveness by improving these aspects. Technology acceptance is influenced by perceived usefulness, perceived ease of use, attitude towards technology, and the intention to use it (Saade, 2007).

Perceived usefulness is defined as the degree to which a person believes that using a technology improves their performance (Davis, 1989). This is similar to utilitarian value, emphasising the task-oriented value for customers (Yang & Lee, 2019). Many studies confirm that perceived usefulness is a crucial factor for the acceptance of new technologies.

Extending Davis' (1989) definition to professional performance, customer experience and perceived value in interactions with AI technologies are also considered (Davis, 1989). The task-technology fit hypothesis suggests that, to have a positive impact, an information system must be designed and used in a way that fits the supported task (Lim & Benbasat, 2000).

Artificial intelligence plays an essential role in transforming interactions between companies and customers, significantly impacting how business is conducted. Virtual assistants, including chatbots, are essential for reaching the target audience without relying on physical human resources, stimulating conversations and facilitating interactions through natural language (Zumstein & Hundertmark, 2018). The annual savings generated by chatbots are considerable, as they can fully replace human workers in customer communications.

In the business context, chatbots are widely used, and companies like Facebook rely exclusively on them for customer conversations. These automated interactions, powered by AI and deep learning, are becoming increasingly precise and efficient with each interaction (Dale, 2016). Chatbots allow companies to generate personalised offers, directly and individually addressed to consumers, being available 24/7 (Zumstein & Hundertmark, 2018). A remarkable example is Alexa, which, by connecting to other smart devices, transforms ordinary homes into smart homes and facilitates independence for the elderly (Corbett, 2021).

Virtual assistants are programmed to communicate with users in natural language, making interactions more pleasant and human-like (Shawar & Atwell, 2017). Users appreciate interactions with chatbots due to the impression that they are speaking to a real person (Fei & Petrina, 2013). According to Zumstein and Hundertmark (2018), virtual assistants should be considered as team members rather than just technological tools (Zumstein & Hundertmark, 2018). They must be able to adapt to the user's personality and convey emotions, which increases their perceived credibility. However, the consumer retention rate for virtual personal assistants such as Alexa is relatively low, reaching only 3% in the second week of use (Yang & Lee, 2019). This suggests that virtual assistant technologies might be perceived more as novelty tools than as truly useful technologies. Moreover, there are concerns about social isolation, ethical issues, and difficulties in use, which represent potential disadvantages of these technologies (Zumstein & Hundertmark, 2018). Although these issues mainly apply to virtual assistants used for private purposes, the situation is different for chatbots and virtual assistants in the context of business-to-consumer communication. There is still a gap between the actual use of these assistants and their perceived utility, an aspect this research aims to explore and clarify.

Companies in almost all industries will be significantly affected by artificial intelligence. According to research, there is a shortage of frameworks and intense rivalry in successfully implementing and scaling AI. This paper fills this gap by providing a methodical overview and an analysis of multiple business strategies for AI implementation. Within this study, we identify essential elements for integrating and scaling AI in business and suggest steps to achieve this based on existing experiences.

Companies are now playing by different rules due to the introduction of ChatGPT and other generative AI systems (Edelman & Abraham, 2023). Experts predicted that AI would have a significant impact on almost all industries (Berg, et al., 2018). Yet these forecasts are surpassed by generative AI, a new type of AI (Chui, et al., 2022). Large language models (e.g., LLaMA, GPT-3, Bard), image-based systems (e.g., Stable Diffusion), multimodal systems combining different types of input (e.g., GPT-4), and application-specific systems (e.g., AlphaFold for protein structure prediction) are examples of generative AI and machine learning.

Nevertheless, many companies struggle to use AI effectively. Increasing ambiguity at all hierarchical levels in an organisation refers to vague information that lacks clear connections and cannot be fully understood (Minciu, et al., 2020). According to recent studies, most AI attempts are unsuccessful (Browder, et al., 2022). Why does this happen, and how can companies leverage AI to their advantage? Companies must effectively integrate and scale AI into their operations to fully capitalise on the opportunities offered by these technologies. This requires the practical implementation and development of AI. To implement AI technologies effectively, companies must increase operational efficiency or develop new value-creation capabilities based on AI. Remaining competitive will be challenging for many companies if they do not embrace and adapt to AI technologies.

A thorough examination of the strategies that companies can use to implement and scale AI is essential, as most firms still struggle with this aspect of managing their business and the need to adopt AI technology to remain competitive in the long term. On the other hand, limited research has been conducted on the application and scaling of AI in business (Makarius, et al., 2020). Companies lack clear guidance in managing these procedures. In particular, businesses need frameworks to facilitate AI adoption and scaling (Kanioura & Lucini, 2020).

Artificial intelligence is becoming increasingly important for business. McCarthy (2007) described AI as "the science and engineering of making intelligent machines, especially intelligent computer programs" (McCarthy, 2007). In particular, approaches "concerned with the question of how to build computer programs that improve automatically with experience" (Mitchell, 1997), such as machine learning, neural networks, and deep learning – which are relatively new – are driving significant changes for businesses (Lakshmi & Bahli, 2020).

One of the biggest change drivers that businesses face today is the shift towards large-scale AI application across virtually all functions and business areas (Acemoglu & Restrepo, 2020). Nearly every aspect of a company's operations, including decision-making, production, marketing, supply chain management, logistics, recruitment, and more, is expected to be affected by these changes (Holmstrom, 2022). The potential and necessity for adopting AI technologies are, for the most part, evident to companies. However, AI implementation is more difficult than many might think, similar to previous stages when new technologies were adopted in business. A significant number of enterprises encounter substantial challenges in adopting AI (Zolas, et al., 2020).

To ensure that AI systems can independently contribute to a firm's value creation, businesses must efficiently structure themselves to manage and maintain these systems and their contributions to business operations. Furthermore, AI myopia (Balasubramanian, et al., 2022) and the inability to recognise interdependence within the company (Raisch & Krakowshki, 2021) suggest that organisations are likely to encounter numerous issues in using AI to enhance value creation and efficiency (Kemp, 2023).

Artificial intelligence is frequently mentioned as a component of digital technologies in general. Compared with other waves of technological progress, the current wave of change is very different. According to Hanelt et al. (2021), modern technologies, such as IT, are distinct from earlier technologies. Digital technologies reshape firm boundaries and cause a more fundamental

shift even in organisations' business models. The academic literature provides little insight into analysing the unique process of change related to artificial intelligence. Since AI drives a fundamentally new breakthrough for businesses in "offloading cognitive work from humans to computers," such analysis is necessary and should be conducted independently from other digital technologies such as cloud computing (Peretz-Andersson & Torkar, 2022). Therefore, this study examines how businesses change as they first become AI-ready and then advance to scale the use of technology. Well-known AI users such as Google and Uber structure their entire business around their AI systems (Johnson, et al., 2022). By integrating previous research on technology adoption with this practical understanding of AI enterprise operations, we aim to examine the organisational and technological adjustments required for businesses to successfully initiate and execute the AI revolution.

Businesses and organisations can greatly benefit from applying artificial intelligence, which fundamentally changes how these entities operate. Automating mundane and repetitive tasks through AI can increase operational efficiency, allowing employees to focus on more complex and valuable work, thereby freeing human resources and improving organisational performance and productivity. AI can also help reduce costs by eliminating human errors and optimising resources, such as reducing energy consumption or improving inventory management (Brynjolfsson & McAfee, 2014).

AI has the potential to deliver major competitive benefits beyond enhanced operational efficiency. Organisations can make faster, better-informed decisions, adapt more effectively to market changes, and anticipate customer needs through data evaluation and insights generation. AI's potential to personalise the consumer experience can lead to higher levels of loyalty and customer satisfaction. Thus, integrating artificial intelligence into business can improve internal processes and lead to new business ventures and enhanced market positioning (Davenport & Ronanki, 2018).

3. Research methodology

The sample used in this research consisted predominantly of members of Generation Z, who had previously interacted with virtual assistants or were likely to use such technologies. According to the research results, 96.9% of respondents were aged between 18 and 25, 2.9% were between 25 and 40, and only 0.2% were over 40 years old.

In this study, a questionnaire was distributed via email and social media using a link generated by Google Forms, which facilitated its creation and distribution. Respondents, mostly students from the University of Bucharest across various specialisations, had the freedom to choose the optimal moment to answer the 15 proposed questions. A few participants from outside the university, namely friends and acquaintances, also took part.

Participants were required to be at least 18 years old to complete the questionnaire and to agree to the Informed Consent Form. Throughout the questionnaire, students received clear instructions to avoid any ambiguities regarding specialised terminology. All questions were mandatory, and each item allowed only a single response to prevent issues related to data validation.

Data Collection

The survey was conducted over three months, from October to December 2023, and recorded 521 valid responses. Among these, 63% were female, and 96.9% came from urban areas, reflecting the primary target group of the research – young people interested in artificial intelligence and virtual assistants.

The number of responses collected was sufficient according to the factor analysis used. To be valid, this statistical method requires a sample at least five times larger than the number of variables analysed, plus ten additional participants (Sreejesh, et al., 2014). The questionnaire included 45 ordinal variables, meaning the minimum required participants would have been 235. With 521 valid responses, the research sample was adequate to ensure statistical relevance.

The results show that Generation Z participants possess advanced digital and AI-related skills. From a gender perspective, no significant changes were found in the use of digital platforms, although some differences were observed in relation to traditional gender roles (Schor, et al., 2016). Young people, especially students, represent the most significant segment of digital platform users due to their higher levels of training and education (Smith, 2016).

Data Analysis

After performing the Cronbach's Alpha test, factor analysis was used to group the factors that influence customers' perception of AI virtual assistants. This analysis was essential for handling the large number of variables, providing results that were easy to interpret and visualise graphically. The variable groups relevant to the use and implementation of virtual assistants are displayed in the resulting components.

Factor analysis explores three main aspects: identifying the factors that explain correlations among variables; identifying a new, smaller set of uncorrelated variables to replace the original set of correlated variables; and enabling the application of further statistical analyses. Reducing the number of variables accelerates data processing and reveals hidden patterns in the relationships between data (Sreejesh, et al., 2014). This methodology has been applied across various fields, including operations research, psychology, industrial management, as well as social sciences in general (Hair, 1995). The number of components selected in factor analysis depends on the amount of variance explained. For example, if a single component with six variables represents more than 80% of the variance, that component is retained in the analysis (Eden, et al., 2020). Exploratory Factor Analysis (EFA) is used to identify the number of factors influencing the variables and to analyse which variables "fit" together (DeCoster, 1998).

4. Results and discussions

The interpretation of the data obtained from the questionnaires applied to students on the topic of the perception regarding the implementation and use of AI virtual assistants in organisations was carried out using SPSS, with the support of factor analysis. The results indicate an excellent suitability of the sample for this analysis method, as highlighted by the KMO value of 0.942. This suggests that the correlation patterns among the variables are compact, and factor analysis is appropriate. A KMO value close to 1 indicates a high proportion of common variance among

variables, which makes the relationships between them strong enough to identify the underlying factors.

Bartlett's Test of Sphericity provides information on the correlations among variables. The approximate Chi-Square value of 12,234.109, the degrees of freedom of 990, and the significance level of 0.000 indicate that our variables are significantly correlated. The test rejects the null hypothesis that the correlation matrix of the variables is an identity matrix, which would have meant that the variables are orthogonal (independent) and that factor analysis would not be suitable.

The high KMO values and the significance of Bartlett's test indicate that our sample is suitable for factor analysis. The variables are significantly correlated, justifying the use of this method to identify latent factors within the dataset.

The interpretation of the communalities table is essential for understanding the extent to which individual variables contribute to the total variance explained by the factors extracted from factor analysis. The communality values for each variable indicate the proportion of the total variance explained by the extracted factors. In our dataset, all variables have a communality value higher than 0.5, demonstrating that the variance explained by each individual variable is high. The variables "User Experience" and "Associated Costs" have the highest values, 0.738 and 0.745 respectively, indicating that a considerable part of the general variance is explained by these two factors.

The total variance table shows the extraction of four important components from the total of 45 variables. The first component has an eigenvalue of 14.393, explaining 31.984% of the total variance. The second component has an eigenvalue of 3.132 and explains 6.96% of the variance, bringing the cumulative variance explained by the first two components to 38.945%. The third component explains 5.290% of the total variance, and the fourth component 3.978%. Therefore, the first four components explain 38.945% of the total variance, as presented in the table below.

Table 1: Total explained Varince

Nr.	Initial Eigenvalue			Extracted Sum of Squared Loadings			Rotated Sum of Squared Loadings
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	14.393	31.984	31.984	14.393	31.984	31.984	6.078
2	3.132	6.960	38.945	3.132	6.960	38.945	4.814
3	2.381	5.290	44.235	2.381	5.290	44.235	4.345
4	1.790	3.978	48.213	1.790	3.978	48.213	4.231

Source: Authors' own research.

The values in the "Extraction Sums of Squared Loadings" are identical to the initial values because the extraction method uses all components. After rotation, the eigenvalues are recalibrated to facilitate interpretation, without altering the total amount of variance explained. The first three components each explain more than 5% of the total variance, and the first four components

explain approximately 48.213% of the variance, representing the most significant factors in the context of the studied data.

The label "Efficiency and Operational Performance" underlines the importance of using virtual assistants to optimise business processes. This component, built on twelve distinct variables, focuses on improving efficiency, completing tasks rapidly, and reducing operational costs. The variables included measure overall efficiency, the speed of task implementation, and the impact of virtual assistants on operational costs, as well as their adaptability and accessibility.

The concept of support and facilitation in daily personal activities is the main focus of the second component, "Assistance and Facilitation in Daily Activities." This component includes seven variables assessing how virtual assistants facilitate day-to-day tasks and enhance user experience, such as efficiently managing household duties, providing relevant information, and offering the necessary support in various daily scenarios.

The third component, "Enhanced Experience and Security," based on six variables, focuses on improving the user experience and ensuring a high level of security and privacy. It reflects users' concerns and needs in their interaction with AI virtual assistants, covering aspects such as automation, accessible interfaces, personalisation, and the quality of the information provided, along with data security and confidentiality.

The last component, "Shopping Experience and Financial Management," consists of six different variables and relates to financial management elements, data security in the context of commercial transactions, and the shopping experience. This component represents customers' expectations and concerns regarding the purchasing process and the management of financial resources, highlighting how virtual assistants enhance both shopping experiences and the efficient management of personal finances.

The component "Shopping Experience and Financial Management" draws attention to the importance of virtual assistants in clients' financial and commercial interactions. By evaluating the ways in which these assistants improve the shopping experience and expense management, this research contributes to a comprehensive understanding of customers' perceptions of the role of virtual assistants in this context.

The factor analysis identified four main components that explain a significant proportion of the total variance. The first component, "Efficiency and Operational Performance," reflects the importance of using virtual assistants to optimise business processes. The second component, "Assistance and Facilitation in Daily Activities," highlights the role of virtual assistants in easing daily tasks and improving the user experience. The third component, "Enhanced Experience and Security," emphasises the need to provide a pleasant and secure interaction with virtual assistants. The final component, "Shopping Experience and Financial Management," focuses on the influence of virtual assistants on the shopping experience and the management of financial resources.

These results underline the importance of virtual assistants in various aspects of users' lives and contribute to a deeper understanding of how they can enhance both efficiency and user experience in different contexts.

The results obtained from the factor analysis allow us to evaluate the validity of the two

hypotheses proposed at the end of the Introduction section. Firstly, the sample adequacy for factor analysis, indicated by a KMO value of 0.942, suggests that the correlation patterns among the variables are compact and appropriate for this method. Bartlett's Test of Sphericity also confirmed the significant correlations among the variables, with a Chi-Square value of 12,234.109 and a significance of 0.000, supporting the relevance of factor analysis.

The first hypothesis states that the implementation of AI virtual assistants significantly improves the efficiency and operational performance of organisations. The main component identified, "Efficiency and Operational Performance," explains 31.984% of the total variance, with an eigenvalue of 14.393. This suggests that virtual assistants play a crucial role in enhancing efficiency and operational performance by enabling rapid task completion and reducing operational costs.

The variables included in this component were selected to measure overall efficiency, task implementation speed, and the impact of virtual assistants on operational costs. The results show that the variables "User Experience" and "Associated Costs" have communality values of 0.738 and 0.745, respectively, indicating that these variables contribute significantly to the resulting model and are relevant for interpreting the results. These data support the hypothesis that AI virtual assistants can improve efficiency and operational performance, thus validating the first hypothesis from an empirical research perspective. This finding is consistent with previous studies highlighting the importance of using AI to automate repetitive tasks and improve operational processes (Brynjolfsson & McAfee, 2014). Additionally, the literature underlines that technology adoption is influenced by perceived usefulness and ease of use, aspects that contribute to enhancing organisational efficiency and performance (Venkatesh, et al., 2018). Moreover, AI, through its ability to interpret and utilise data to achieve various goals and tasks, is redefining the way companies conduct business (Haenlein & Kaplan, 2019). Advances in computing power and machine learning allow companies to leverage AI to anticipate consumer behaviour and optimise internal processes (Huang & Rust, 2021).

The second hypothesis suggests that the use of AI virtual assistants increases user satisfaction by improving the experience and ensuring data security. The component "Enhanced Experience and Security" explains 6.96% of the total variance, with an eigenvalue of 3.132, indicating a significant influence on both user experience and data security.

The variables included in this component were selected to cover various aspects of user experience, such as automation, accessible interfaces, personalisation, and the quality of the information provided by virtual assistants. Additionally, the emphasis on data security and confidentiality addresses the growing concerns of users regarding the protection of personal information.

The results of the factor analysis show that the first four components, including "Enhanced Experience and Security," explain approximately 48.213% of the variance, suggesting that these factors are the most significant in the context of the studied data. This observation validates the hypothesis that the use of AI virtual assistants can improve user satisfaction by providing a pleasant and secure experience.

The literature emphasises the importance of virtual assistants in facilitating user interactions through natural language and providing precise, personalised responses (Zumstein &

Hundertmark, 2018). These findings are supported by the literature, which highlights the relevance of pleasant and secure interactions for users (Shawar & Atwell, 2017). Moreover, studies show that users appreciate the effectiveness of virtual assistants based on the speed and accuracy of their responses, which contributes to increased satisfaction and loyalty (Venkatesh, et al., 2018).

Both hypotheses are validated by the results of the factor analysis as well as by the literature. The implementation of AI virtual assistants significantly contributes to improving the efficiency and operational performance of organisations, confirming the first hypothesis. Similarly, the use of AI virtual assistants enhances user satisfaction by improving the experience and ensuring data security, thus supporting the second hypothesis. These conclusions highlight the importance of AI virtual assistants in various aspects of users' lives and emphasise the significant benefits these technologies can bring in the context of both organisational processes and user experience.

5. Conclusions

The implementation of AI requires a strategic approach with clearly defined steps for long-term success. The first stage consists of identifying and clearly defining the business objectives that AI can support. Companies must conduct an internal assessment to determine the processes and areas that would benefit the most from AI technology. For example, analysing the supply chain to identify optimisation opportunities or using AI to enhance customer experience through advanced personalisation.

The next step is organisational readiness, which includes ensuring that teams possess the necessary competencies and developing an organisational culture that supports AI adoption. This may involve training employees in new technologies and processes, as well as recruiting AI specialists to fill existing skills gaps. Business management plays an essential role in meeting these new requirements, ensuring the conditions for dynamic capacity development, effective learning, and innovation. It is crucial that organisational leadership actively supports AI adoption and encourages a culture of innovation and adaptability.

The effective integration of AI into business processes requires adequate technological infrastructure. Companies must invest in hardware and software compatible with AI technologies, as well as in data management solutions that enable the efficient collection, storage, and analysis of the data needed to train AI models. This step is critical to ensuring the efficient and scalable implementation of AI across the organisation.

Following initial implementation, companies must monitor and evaluate the performance of AI systems. This involves analysing outcomes and adjusting AI models to improve their accuracy and efficiency. Continuous feedback from users and clients is essential for the ongoing enhancement of the systems and for adapting them to the evolving needs of the business.

To maximise AI's benefits, companies must be willing to invest in ongoing research and development. AI technologies evolve rapidly, and companies that wish to remain competitive must stay informed about the latest advancements and be ready to adapt and integrate technological innovations into their operations. This commitment to continuous innovation can provide significant competitive advantages and ensure the long-term sustainability of the organisation.

In conclusion, artificial intelligence has the potential to fundamentally transform how companies operate. The efficient adoption and integration of AI can bring substantial benefits, ranging from increased operational efficiency and cost reduction to improved customer experience and competitive advantage. However, the success of AI implementation depends on a well-defined strategic approach, organisational readiness, and a continuous commitment to innovation and adaptation. Companies that wish to thrive in the digital era must be prepared to embrace these changes and invest in the development and scaling of AI technologies to secure their long-term success.

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Acknowledgement

Presented at the Business Olimpics (AFER 2024)